DOCUMENTATION OF THE DETAIL NATALITY TAPE FILE FOR 1998 DATA

SPECIAL NOTICE EFFECTIVE WITH 1998 DATA THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS RECORDS ARE INCLUDED IN THE TERRITORIES PUBLIC-USE FILE.

EFFECTIVE WITH 1997 DATA AMERICAN SAMOA RECORDS ARE INCLUDED IN THE TERRITORIES PUBLIC-USE FILE. This tape documentation was prepared in the Division of Vital Statistics. Manju Sharma of the Systems, Programming, and Statistical Resources Branch was responsible for developing the natality documentation and for providing all of the computer programming services necessary to keep it up-to-date.

Melissa Park of the Reproductive Statistics Branch prepared the Technical Appendix. The Registration Methods Section and the Data Acquisition and Evaluation Branch provided consultation to State Vital Statistics offices regarding collection of birth certificate data.

Questions on the documentation or general questions concerning the natality file should be directed to the of the Systems, Programming, and Statistical Resources Branch, Division of Vital Statistics, NCHS, 6525 Belcrest Road, Room 840, Hyattsville, MD 20782 (301-458-4777).

Questions concerning the Technical Appendix or substantive questions concerning the natality data should be directed to the Reproductive Statistics Branch, Division of Vital Statistics, NCHS, 6525 Belcrest Road, Room 820, Hyattsville, MD 20782 (301-458-4111).

Since 1985 natality statistics for all States and the District of Columbia have been based on information from the total file of records. The information is received on computer data tapes coded by the States and provided to the National Center for Health Statistics (NCHS) through the Vital Statistics Cooperative Program. NCHS receives the data for this file from the registration offices of all States, the District of Columbia, and New York City. Natality data for Puerto Rico, Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands (referred to as Northern Marianas) are included as separate data-set in the public-use file.

Natality data for the United States are limited to births occurring within the United States to U.S. residents and nonresidents. Births to nonresidents of the United States are excluded from all tabulations by place of residence. Births occurring to U.S. citizens outside the United States are not included in this file. Natality data for Puerto Rico, Virgin Islands, Guam, American Samoa and Northern Marianas are limited to births occurring with in the respective territories.

Effective January 1, 1989, a revised U.S. Standard Certificate of Live Birth replaced the 1978 revision. The 1989 revision provides a wide variety of new information on maternal and infant health characteristics, representing a significant departure from previous versions in both content and format. For a more detailed discussion of the revised and new items refer to the technical appendix part of this document.

The Office of Management and Budget revised its designation of metropolitan statistical areas based on figures from the 1990 Census. Effective with the 1990 data file, NCHS has been using these new definitions and codes as indicated in the listing of 320 Metropolitan Statistical Areas (MSA's), Primary Metropolitan Statistical Areas (PMSA's), and New England County Metropolitan Areas (NECMA'S) included in this documentation. There are also 20 Consolidated Metropolitan Statistical Areas (CMSA's), which are made up of PMSA's. Because other geographic changes based on 1990 Census became effective with 1994 data file, the metropolitan statistical area destination were updated as well. Effective with the 1994 data-file there are 311 MSA's, PMSA's, and NECMA'S and 18 CMSA's as indicated in the listing included in this documentation.

NCHS has adopted a new policy on release of vital statistics unit record data files. This new policy was implemented for the 1989 vital event files to prevent the inadvertent disclosure of individuals and institutions. As a result, the files for 1989 and later years do not contain the actual day of the birth or the dates of birth of the mother or father. The geographic detail is also restricted; only counties and cities of 100,000 or more population based on the 1990 Census, as well as metropolitan areas of 100,000 or more population based on the 1990 Census, are identified.

Included in this document are:

- 1. List of data elements and tape locations.
- 2. Machine/File/Data Characteristics.
- Detail Record Layout.
- 4. Geographic Code Outline.
- 5. Metropolitan Statistical Areas as adapted for use by NCHS/DVS.
- 6. Technical Appendix.
- 7. Table 1. Counts of Births by occurrence and residence for each State
- 8. Report of Final Natality Statistics, 1998

SYMBOLS USED IN TABLES

Symbol Explanation

- --- Data not available
- ... Category not applicable
 - Quantity zero
- 0.0 Quantity more than 0 but less than 0.05
 - * Figure does not meet standards of reliability or precision

List of Data Elements and Tape Locations

	Data	<u>Items</u>	<u>Locations</u>
1.	Gener	al	
	a.	Data year	1-4
	b.	Record type	5
	c.	Resident status	6
2.	Occur	rence	
	a.	NCHS State	16-17
	b.	Expanded NCHS State	14-15
	c.	NCHS County	18-20
	d.	Population size - county	26
	e.	Division	12
	f.	Region	11
	g.	FIPS State	21-22
	h.	FIPS County	23-25
3.	Resid	lence	
	a.	NCHS State	32-33
	b.	Expanded NCHS State	30-31
	c.	NCHS County	34-36
	d.	NCHS City	37-39
	e.	Population size - city	40
	f.	Population size - county	58
	g.	NCHS PSMA/MSA	347-349
	h.	Met/Nonmet county	41
	I.	Division	28
	j.	Region	27
	k.	FIPS State	42-43
	1.	FIPS County	44-46
	m.	FIPS Place	47-51
	n.	CMSA	52-53
	0.	FIPS PSMA/MSA	54-57
4.	Prena	tal Care	
	a.	Month began	106-109
	b.	Number of visits	110-113
	c.	Adequacy of care recode	93
5.	Child		
	a.	Sex	188-189
	b.	Number at delivery	201
	c.	Birthweight	193-199
	d.	Apgar score	205-207
	e.	Gestation	181-187,208-209
	f.	Month/year of birth	172-173,176-179
	g.	Day of week of birth	180

List of Data Elements and Tape Locations

	<u>Data Items</u>		<u>Locations</u>
6.	Mothe	r	
	a.	Age	68-76,91-92
	b.	Race	79-82
	c.	Marital status	86-87
	d.	Education	83-85
	e.	Place of birth	88-90
	f.	Hispanic origin	77-78
7.	Pregna	ancy History	
	a.	Born alive, now living	94-95
	b.	Born alive, now dead	96-97
	c.	Other terminations	98-99
	d.	Total birth order	103-105
	e.	Live birth order	100-102
8.	Father	r	
	a.	Age	154-157,166-167
	b.	Race	160-162
	c.	Hispanic origin	158-159
9.	Other	Items	
	a.	Residence reporting flags	307-326
	b.	Attendant at birth	10
	c.	Place of delivery	8-9
	d.	Interval since last live birth	128-132
10.	Medica	al and Health Data	
	a.	Method of delivery	217-222,224
	b.	Medical risk factors	225-241
	c.	Other risk factors	
		Tobacco	242-245
		Alcohol	246-249
		Weight gain during pregnancy	250-252
	d.	Obstetric procedures	253-259
	e.	Complications of labor and/or	
		delivery	260-275
	f.	Abnormal conditions of the	
		newborn	276-284
	g.	Congenital anomalies	285-306

Machine/File/Data Characteristics: ALL DATA SETS:

1. 2. 3. 4. 5. 6. 7. 8.	Machine used: Language used: File organization Record format: Record mode: Code scheme: Last block: Record length: Blocksize:	IBM/3081/K PL/I One file, multiple reel Blocked, fixed format IBM/EBCDIC 8-bit code Numeric/Alphabetic/Blan May be a short block 350 32550	
U.S.	DATA SET:		
-	<pre>cord count: ta counts: ALL B</pre>	IRTHS:	
2. Da	ta counts. And B	a. By occurrence:	3,945,192
		b. By residence:	3,941,553
		c. To foreign residents:	3,639
PUERT	O RICO, VIRGIN ISL	ANDS, AND GUAM DATA SET:	
1.	Record count:		69,911
PUERT	O RICO:		
2.	Data counts:	ALL BIRTHS: a. By occurrence: b. By residence:	60,518
	60,412	D. D. Tebruence.	
VIRGI	N ISLANDS:		
1.	Record count: Data counts:	ALL BIRTHS: a. By occurrence: b. By residence:	1,915 1,800
GUAM:			
1.	Record count: Data counts:	ALL BIRTHS: a. By occurrence: b. By residence:	4,328 4,318
AMERI	CAN SAMOA:	D. D. Tebruence.	1,310
1.	Record count: Data counts:	ALL BIRTHS: a. By occurrence: b. By residence:	1,688 1,688
NORTH	ERN MARIANAS:	D. Dy legidence.	1,000
1. 2.	Record count: Data counts:	ALL BIRTHS: a. By occurrence: b. By residence:	1,462 1,462

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Cod	le Out:	<u>line</u>
1-4	4	<u>DATAYEAR</u> <u>Year Birth</u>	of Chi	ild (Data Year)
		1998		1998
5	1	<u>RECTYPE</u> Record Type		
		1		Resident: State and county of occurrence and residence are the same.
		2	• • •	Nonresident: State and/or county of occurrence and residence are different.
6	1	<u>RESTATUS</u> <u>Resident</u> St	<u>atus</u>	
		United Stat	es occ	currence
		1		RESIDENTS: State and county of occurrence and residence are the same.
		2	• • •	INTRASTATE NONRESIDENTS: State of occurrence and residence are the same, but county is different.
		3	• • •	INTERSTATE NONRESIDENTS: State of occurrence and residence are different, but both are in the U.S.
		4		FOREIGN RESIDENTS: State of occurrence is one of the 50 States or the District of Columbia, but place of residence of mother is outside of the U.S.
		Puerto Rico	occur	rrence
		1		RESIDENTS: Territory and county equivalent of occurrence and
		2	•••	residence are the same. INTRATERRITORY NONRESIDENTS: Territory of occurrence and residence are the same, but county equivalent is different.
		4		FOREIGN RESIDENTS: Occurred in Puerto Rico to a resident of any other place.

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Cod	e Outl	<u>.ine</u>
6	1	<u>RESTATUS</u> Resident St	atus (Cont'd)
		Virgin Isla	nds oc	currence
		1	• • •	RESIDENTS: Territory and county equivalent of occurrence and residence are the same.
		2	• • •	INTRATERRITORY NONRESIDENTS: Territory of occurrence and residence are the same, but county
		4	• • •	equivalent is different. FOREIGN RESIDENTS: Occurred in the Virgin Islands to a resident of any other place.
		Guam occurr	ence	
		1		RESIDENTS: Occurred in Guam to a resident of Guam or to a resident of the U.S.
		4	• • •	FOREIGN RESIDENTS: Occurred in Guam to a resident of any place other than Guam or of the U.S.
		American Sa	moa oc	<u>currence</u>
		1	• • •	RESIDENTS: Territory and county equivalent of occurrence and residence are the same.
		2	• • •	INTRATERRITORY NONRESIDENTS: Territory of occurrence and residence are the same, but county
		4	•••	equivalent is different. FOREIGN RESIDENTS: Occurred in the American Samoa to a resident of any other place.
		Northern Ma:	rianas	occurrence
		1	• • •	RESIDENTS: Territory and county equivalent of occurrence and
		2		residence are the same. INTRATERRITORY NONRESIDENTS: Territory of occurence and residence are the same, but county equivalent is different.
		4	•••	FOREIGN RESIDENTS: Occurred in the Northern Marianas to a resident of any other place.

7 1 RECWT Record Weight

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
		Constant - as of the 1985 data year, this file contains data on a 100-percent basis from all reporting areas.
8	1	<u>PLDEL</u> Place or Facility of Birth
		1 Hospital 2 Freestanding Birthing Center 3 Clinic or Doctor's Office 4 A Residence 5 Other 9 Unknown or Not Stated
9	1	PLDEL3 Place or Facility of Birth Recode
		1 In Hospital 2 Not in a Hospital 3 Unknown or Not Stated
10	1	<u>BIRATTND</u> <u>Attendant at Birth</u>
		<pre>1 Doctor of Medicine (M.D.) 2 Doctor of Osteopathy (D.O.) 3 Certified Nurse Midwife (C.N.M.) 4 Other Midwife 5 Other 9 Unknown or Not Stated</pre>
11-26	16	NOCCUR Place of Occurrence
11-13	3	RDSSCOCC Region, Division, and State Subcode of Occurrence
11	1	REGNOCC Region of Occurrence
12	1	DIVOCC Division of Occurrence
13	1	STSUBOCC State Subcode of Occurrence

States are coded within division and the structure is designed to sequence the States as they appear in NCHS publications.

1998 Detail Natality Record

Tape

Field

Tape	Field				
<u>Location</u>	<u>Size</u>		Item and C	ode Oi	ıtline
<u> </u>	<u>5120</u>		TOOM GIIG O	<u> </u>	<u> </u>
			000		Not applicable: P.R., V.I.,
			000		
					A.S., Guam or M.P. occurrence
		1			<u>NORTHEAST</u>
		_	1		
					New England
			1		Maine
			2		New Hampshire
			3		Vermont
			4		Massachusetts
			5		Rhode Island
			6		Connecticut
			2		Middle Atlantic
			1		New York
			2		New Jersey
			3		Pennsylvania
			2		
					MIDWEST
			3		<u>East North Central</u>
			1		Ohio
			2		Indiana
			3		Illinois
			4		Michigan
			5		Wisconsin
			4		West North Central
			1		Minnesota
			2		Iowa
			3		Missouri
			4		North Dakota
			5		South Dakota
			6		Nebraska
			7		Kansas
			3		SOUTH
				• • •	
			5		South Atlantic
			1		Delaware
			2		Maryland
			3		District of Columbia
			4		Virginia
			STSUBOCC		
13	1			Subac	ode of Occurrence (Cont'd)
13	_			Bubee	
			5		West Virginia
			6		North Carolina
			7		South Carolina
				• • •	
			8		Georgia
			9		Florida
			6		East South Central
			1		Kentucky
			2	• • •	Tennessee
			3		Alabama
			4		Mississippi
			7		West South Central
				• • •	Arkansas
			1	• • •	
			2		Louisiana
			3		Oklahoma

1998 Detail Natality Record

Tape	Field				
<u>Location</u>	<u>Size</u>	Item and Co	de Outl	<u>ine</u>	
		4		Texas	
		4	<u>W</u>	EST .	
		8		<u>Mountain</u>	
		1		Montana	
		2		Idaho	
		3		Wyoming	
		4		Colorado	
		5		New Mexico	0
		6		Arizona	
		7		Utah	
		8		Nevada	
		9		<u>Pacific</u>	
		1		Washington	n
		2		Oregon	
		3		California	а
		4	• • •	Alaska	~
		5	• • •	Hawaii	
		J	• • •	Hawaii	
14-15	2	STNATEXP			
14 15	2		tata of	Occurrence	
		Expanded 5	tate or	Occurrence	
			city re		parately identify other New York
		United Sta	tes		
		01		Alabama	
		02		Alaska	
		03		Arizona	
		04		Arkansas	
		05		California	
14-15	2	STNATEXP			
		Expanded S	tate of	Occurrence	(Cont'd)
		06		Colorado	
		07		Connecticut	
		0.8		Delaware	
		09		District of	Columbia
		10		Florida	
		11		Georgia	
		12		Hawaii	
		13		Idaho	
		14		Illinois	
		15		Indiana	
		16		Iowa	
		17	• • •		
		18	• • •	Kansas Kentucky	
		19	• • •	Louisiana	
			• • •		
		20	• • •	Maine	
		21	• • •	Maryland	.
		22	• • •	Massachuset	LS
		23	• • •	Michigan	
		24	• • •	Minnesota	
		25	• • •	Mississippi	

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code	Outl:	<u>ine</u>
		27 . 28 .		Missouri Montana Nebraska Nevada New Hampshire
		32		New Jersey New Mexico New York New York city North Carolina North Dakota Ohio
		38		Oklahoma Oregon Pennsylvania Rhode Island South Carolina South Dakota
		45 46 47 48		Tennessee Texas Utah Vermont Virginia Washington
14-15	2	STNATEXP Expanded Stat	ce of	Occurrence (Cont'd)
		51 .		West Virginia Wisconsin Wyoming
				Puerto Rico
			<u>ls</u> 	Virgin Islands
				Guam
		American Samo 62 . Northern Mari		American Samoa
16-17	2	63 .		Northern Marianas
10-11	2	STATENAT State of Occu		<u>ce</u>
		United States 01 . 02 .	<u>5</u> 	Alabama Alaska

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Co	ode Outl	ine
		03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21		Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland
16-17	2	STATENAT		nce (Cont'd)
		22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51		Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania Rhode Island South Carolina South Dakota Tennessee Texas Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
		Puerto Rico 52 Puerto Rico
		<u>Virgin Islands</u> 53 Virgin Islands
		Guam 54 Guam
		American Samoa 61 American Samoa
		Northern Marianas 62 Northern Marianas
18-20	3	CNTYNAT County of Occurrence
		001-nnn Counties and county equivalents
21-25	5	FIPSOCC Federal Information Processing Standards (FIPS) Geographic Codes (Occurrence)
		Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. For an explanation of FIPS codes, reference should be made to various National Institute of Standards and Technology (NIST) publications. Some Geographic codes have changed to reflect the results of the 1990 Census.
21-22	2	STOCCFIP State of Occurrence (FIPS)
		United States 01 Alabama 02 Alaska 04 Arizona 05 Arkansas

1998 Detail Natality Record

Tape	Field	
Location	<u>Size</u>	Item and Code Outline
		06 California 08 Colorado 09 Connecticut
		10 Delaware
		11 District of Columbia
		12 Florida
		13 Georgia
21-22	2	STOCCFIP
		State of Occurrence (FIPS) (Cont'd)
		15 Hawaii
		1.6
		10 -111'
		10 T 1'
		18 Indiana 19 Iowa
		0.0
		0.1
		- · · · ·
		0.0
		0.4
		25
		25 Massachusetts 26 Michigan
		27 Minnesota
		Nii
		20
		21
		2.0
		22
		24
		25
		2.6
		27 11 0 11
		20
		39 North Dakota 39 Ohio
		4.0
		40 Oklanoma 41 Oregon
		42 Pennsylvania
		44 Rhode Island
		45 South Carolina
		46 South Dakota
		47 Tennessee
		48 Texas
		4.0
		T.O
		F1
		51 Virginia 53 Washington
		54 West Virginia
		55 Wisconsin
		56 Wyoming
		Puerto Rico
		72 Puerto Rico

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
		<u>Virgin Islands</u> 78 Virgin Islands
		Guam 66 Guam
		American Samoa 60 American Samoa
		Northern Marianas 69 Northern Marianas
23-25	3	<pre>CNTOCFIP County of Occurrence (FIPS)</pre>
		O01-nnn Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State. (Note: To uniquely identify a county, both the State and county codes must be used.) A complete list of counties is shown in the Geographic Code Outline further back in this document. 999 County of less than 100,000 population
26	1	<pre>CNTOCPOP Population Size of County of Occurrence</pre>
27-58	32	Based on the results of the 1990 Census 0 County of 1,000,000 or more 1 County of 500,000 to 1,000,000 2 County of 250,000 to 500,000 3 County of 100,000 to 250,000 9 County of less than 100,000 NRESID Place of Residence Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. Some Geographic codes have changed to reflect the results of the 1990 Census.
27-29	3	RESIDENT THE RESULTS OF the 1990 Census. RESCRES Region, Division, and State Subcode of Residence
27	1	REGNRES Region of Residence

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
28	1	DIVRES Division of Residence
29	1	STSUBRES State Subcode of Residence
		States are coded within Division and the code structure is designed to sequence the States as they appear in NCHS publications. APPLICABLE TO U.S. ONLY
		000 <u>Foreign Residents</u>
		1 NORTHEAST
		1 New England
		1 Maine
		2 New Hampshire
		3 Vermont
		4 Massachusetts
		5 Rhode Island
		6 Connecticut
		2 <u>Middle Atlantic</u>
		1 New York
		2 New Jersey 3 Pennsylvania
		3 Pennsylvania

3

1

2

3

4

5

1

2

3

4

5

6

7

3

29	1	STSUBRES

State Subcode of Residence (Cont'd)

SOUTH

... MIDWEST

Ohio

Indiana

Illinois

Michigan

Wisconsin

Minnesota

Missouri

Nebraska

Kansas

Iowa

West North Central

North Dakota

South Dakota

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East North Central

5	 South Atlantic
1	 Delaware
2	 Maryland
3	 District of Columbia
4	 Virginia
5	 West Virginia
6	 North Carolina

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
		7 South Carolina 8 Georgia 9 Florida 6 East South Central 1 Kentucky 2 Tennessee 3 Alabama 4 Mississippi 7 West South Central 1 Arkansas 2 Louisiana 3 Oklahoma 4 Texas 4 WEST 8 Mountain 1 Montana 2 Idaho 3 Wyoming 4 Colorado 5 New Mexico 6 Arizona 7 Utah 8 Nevada 9 Pacific 1 Washington 2 Oregon 3 California 4 Alaska
30-31	2	5 Hawaii STRESEXP Expanded State of Residence This item is designed to separately identify New York City records from other New York State records.
30-31	2	STRESEXP Expanded State of Residence (Cont'd) 01 Alabama 02 Alaska 03 Arizona 04 Arkansas 05 California 06 Colorado 07 Connecticut 08 Delaware 09 District of Columbia 10 Florida 11 Georgia 12 Hawaii 13 Idaho

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Cod	le Out]	<u>line</u>
		14		Illinois
		15	• • •	Indiana
		16	• • •	
		17	• • •	Iowa
			• • •	Kansas
		18	• • •	Kentucky Louisiana
		19	• • •	
		20	• • •	Maine
		21	• • •	Maryland
		22	• • •	Massachusetts
		23	• • •	Michigan
		24	• • •	Minnesota
		25		Mississippi
		26	• • •	Missouri
		27	• • •	Montana
		28		Nebraska
		29		Nevada
		30		New Hampshire
		31		New Jersey
		32		New Mexico
		33		New York
		34		New York City
		35		North Carolina
		36		North Dakota
		37		Ohio
		38		Oklahoma
		39		Oregon
		40		Pennsylvania
		41		Rhode Island
		42		South Carolina
		43		South Dakota
		44		Tennessee
30-31	2	STRESEXP		
			tate o	of Residence (Cont'd)
		45		Texas
		46		Utah
		47		Vermont
		48		Virginia
		49		Washington
		50		West Virginia
		51		Wisconsin
		52		Wyoming
		53-58,60,		Foreign Residents
		62,63	• • •	rorergii itebraeneb
		53		Puerto Rico
		54		Virgin Islands
		55		Guam
		62		American Samoa
		63		Northern Marianas
		56		Canada
		57	• • •	Cuba
		58	• • •	Mexico
		60	• • •	Remainder of the world
		00	• • •	Remainder of the world

1998 Detail Natality Record

Tape Location	Field Size	Item and Code Outline	
<u> </u>	<u>2220</u>	100m 4114 0040 04011110	
		D	
		Puerto Rico occurrence	No. 2014 a. D. Land
		01-52,54-58,60,62,63 F	Puerto Rico oreign residents: Refer o U.S. for specific code tructure.

		Virgin Islands occurrence	T = 1 = = 4 =
		01-53,55-58,60,62,63Foreig	or specific code
		Guam occurrence	
		55 Guam	
		01-52 U.S. r	esident is also ered a resident of Guam.
		53-54,56-58,60,62,63Foreig U.S. f struct	or specific code
		American Samoa occurrence	
		62 America	
			sident is also red a resident of n Samoa
30-31	2	STRESEXP Expanded Sstate of Residence	(Cont'd)
		U.S. for structu	residents: Refer to r specific code re.
		Northern Marianas	
		01-52 U.S. re conside	n Marianas sident is also red a resident of n Marianas.
		53-58,60,62 Foreign	residents: Refer to r specific code
32-33	2	<u>STATERES</u> State of Residence	
		United Chates assumens	
		<u>United States occurrence</u> 01 Alabama	
		02 Alaska	
		03 Arizona	
		04 Arkansas	
		05 California	
		06 Colorado	
		07 Connecticut	
		08 Delaware	
		09 District of C	olumbia
		10 Florida	

1998 Detail Natality Record

Tape	Field			
<u>Location</u>	<u>Size</u>	Item and Code	e Out	<u>line</u>
		11 .		Georgia
		12 .		Hawaii
		13 .		Idaho
		14 .		Illinois
		15 .		Indiana
		16 .		Iowa
				Kansas
				Kentucky
				Louisiana
				Maine
				Maryland
				Massachusetts
				Michigan
				Minnesota
		0.6		Mississippi Missouri
		0.5		Montana
				Nebraska
		20 .	• •	Nebraska
32-33	2	STATERES		
			siden	ce (Cont'd)
		29 .		Nevada
		30 .		New Hampshire
				New Jersey
		-		New Mexico
				New York
				North Carolina
				North Dakota
		36 .		Ohio
		37 .		Oklahoma
				Oregon
		39 . 40 .		Pennsylvania Rhode Island
		40 .		South Carolina
		42 .		South Dakota
		43 .	• •	Tennessee
		4.4		Texas
		45 .		Utah
		4 -		Vermont
		4.5		Virginia
		4.0		Washington
		49 .		West Virginia
		50 .		Wisconsin
		51 .		Wyoming
			,62	Foreign Residents
				Puerto Rico
				Virgin Islands
				Guam
		61 .		American Samoa
		62 .		Northern Marianas
		55 .	• •	Canada
		56 .	• •	Cuba
		57 .		Mexico

1998 Detail Natality Record

Tape Field
Location Size Item and Code Outline

59 ... Remainder of the world

1998 Detail Natality Record

Tape	Field	
<u>Location</u>	<u>Size</u>	Item and Code Outline

32-33

STATERES

State of Residence (Cont'd)

Puerto Rico occurrence

52 ... Puerto Rico
01-51,53-57,59, ... Foreign Residents: Refer to
61,62 U.S. for specific code
structure.

Virgin Islands occurrence

53 ... Virgin Islands
01-52,54-57,59, ... Foreign Residents: Refer to
61,62 U.S. for specific code
structure.

Guam occurrence

54 ... Guam

01-51 ... U.S. resident is also considered a resident of Guam.

52-53,55-57,59, ... Foreign Residents: Refer to U.S. for specific code structure.

American Samoa occurrence

61 ... American Samoa
01-51 ... U.S. resident is also
considered a resident of
American Samoa
52-57,59,62 ... Foreign Residents: Refer to

52-57,59,62 ... Foreign Residents: Refer to U.S. for specific code structure.

Northern Marianas

01-51 ... Northern Marianas
01-51 ... U.S resident is also considered a resident of Northern Marianas.
52-57,59,61 ... Foreign Residents: Refer to U.S. for specific code

structure.

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline			
34-36	3	CNTYRES County of Residence		untica is shown in the	
				unties is shown in the ne further back in this	
		001-nnn		Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State and identify each county with a population of 100,000 or more in 1990. (Note: To uniquely identify a county, both the State and county codes must be used.)	
		999	• • •	County of less than 100,000 population	
		ZZZ		Foreign Residents	
37-39	3	CITYRES City of Residence			
				ties is shown in the ne further back in this	
		001-nnn		Cities are numbered alphabetically within each State and identify each city with a population of 100,000 or more in 1990. (Note: To uniquely identify a city, both the State and city codes must be used. State, county and city codes may also be used.)	
		999 ZZZ		Balance of county Foreign residents	

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
40	1	CITRSPOP Population Size of City of Residence
		Based on the results of the 1990 census
		<pre>0</pre>
41	1	<u>METRORES</u> <u>Metropolitan - Nonmetropolitan County of Residence</u>
		NOTE: VIRGIN ISLANDS, GUAM, NORTHERN MARIANAS AND AMERICAN SAMOA DO NOT HAVE ANY METROPOLITAN AREAS
		 Metropolitan county Nonmetropolitan county Foreign residents
42-57	16	FIPSRES Federal Information Processing Standards (FIPS) Geographic Codes (Residence)
		Refer to the Geographic Code Outline further back in this document for a detailed list of areas and codes. For an explanation of FIPS codes, reference should be made to various National Institute of Standards and Technology (NIST) publications. Some Geographic Codes have changed to reflect the results of the 1990 Census.
42-43	2	STRESFIP State of Residence (FIPS)
		00 Foreign residents 01 Alabama 02 Alaska 04 Arizona 05 Arkansas 06 California 08 Colorado 09 Connecticut 10 Delaware
42-43	2	STRESFIP State of Residence (Fips) (Cont'd)
		11 District of Columbia 12 Florida

1998 Detail Natality Record

Tape	Field				
<u>Location</u>	<u>Size</u>	Item and C	ode Ou	tline	
		13		Georg	i a
		15	• • •	Hawai	
		16	• • •	Idaho	
			• • •		
		17	• • •	Illin	
		18	• • •	India	na
		19	• • •	Iowa	
		20	• • •	Kansa	
		21		Kentu	
		22		Louis	
		23		Maine	
		24		Maryl	and
		25		Massa	chusetts
		26		Michi	gan
		27		Minne	sota
		28		Missi	ssippi
		29		Misso	uri
		30		Monta	na
		31		Nebra	.ska
		32		Nevad	
		33			ampshire
		34			ersey
		35		New M	-
		36	• • •	New Y	
		37	• • •		Carolina
		38	• • •		Dakota
			• • •		Dakota
		39	• • •	Ohio	
		40		Oklah	
		41		Orego	
		42	• • •		ylvania
		44	• • •		Island
		45			Carolina
		46		South	Dakota
		47		Tenne	ssee
		48		Texas	
		49		Utah	
		50		Vermo	nt
		51		Virgi	nia
		53		Washi	ngton
		54		West	Virginia
		55		Wisco	
		56			
				-	3
42-43	2	STRESFIP			
		State of F	Resider	nce (FI	PS) (Cont'd)
		<u>Puerto Rico</u>			
		00-56,60,	,66,78,	69	Foreign Residents: Refer to
					U.S. for specific code
					structure
		72			Puerto Rico

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outli	<u>ine</u>
		00-56,60,66,72,69	Foreign Residents: Refer to U.S. for specific code structure
		78	Virgin Islands
		Guam occurrence 00,60,72,78,69	Foreign Residents: Refer to U.S. for specific code structure
		01-56	U.S. Resident is also considered a resident of Guam. Refer to U.S. for specific code structure
		66	Guam
		American Samoa occu	rrence
		00,66,72,78,69	Foreign Residents: Refer to U.S. for specific code structure
		01-56	U.S. Resident is also considered a resident of American Samoa.Refer to specific code structure
		60	American Samoa
		Northern Marianas	
		00,60,66,72,78	Foreign Residents: Refer to U.S. for specific code structure.
		01-56	U.S. Resident is also considered a resident of Northern Marianas. Refer to Specific code structure.
		69	Northern Marianas

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
44-46	3	<pre>CNTYRFIP County of Residence (FIPS)</pre>
		001-nnn Counties and county equivalents
		999 County of less than 100,000 population 000 Foreign residents
47-51	5	PLACEFIP Place (City) of Residence
		A complete list of cities is shown in the Geographic code outline further back in this document. Effective with the 1994 data year, the FIPS place code has been added to the Natality record. It identifies each city of 100,000 population or more in 1990.
		00000 Foreign residents 00001-
		nnnnn Code range 99999 Balance of county; or city of less than 100,000 population
52-53	2	CMSA of Residence (FIPS)
		Consolidated Metropolitan Statistical Areas are groupings of certain Primary Metropolitan Statistical Areas and are defined by the U.S. Office of Management and Budget (OMB) as of June 30, 1990.
		All AREAS 00 Not a CMSA
		United States occurrence 07 Boston-Worcester-Lawrence, MA-NH-ME CT, CMSA
52-53	2	14 Chicago-Gary-Kenosha, IL-IN-WI, CMSA 21 Cincinnati-Hamilton, OH-KY-IN, CMSA 28 Cleveland-Akron, OH, CMSA 31 Dallas-Fort Worth, TX, CMSA CMSA
		CMSA of Residence (FIPS) (Cont'd)
		34 Denver-Boulder-Greeley, CO, CMSA 35 Detroit-Ann Arbor-Flint, MI, CMSA 42 Houston-Galveston-Brazoria, TX, CMSA 49 Los Angeles-Riverside-Orange County,

1998 Detail Natality Record

Tape	Field		
<u>Location</u>	<u>Size</u>	Item and Co	ode Outline
			CA, CMSA
		56	Miami-Fort Lauderdale, FL, CMSA
		63	Milwaukee-Racine, WI, CMSA
		70	New York-Northern New Jersey-Long Island, NY-NJ-CT-PA, CMSA
		77	Philadelphia-Wilmington-Atlantic
			City, PA-NJ-DE-MD, CMSA
		79	Portland-Salem, OR-WA, CMSA
		82	Sacramento-Yolo, CA, CMSA
		84	San Francisco-Oakland-San Jose, CA, CMSA
		91	Seattle-Tacoma-Bremerton, WA, CMSA
		97	Washington-Baltimore, DC-MD-VA-WV, CMSA
		Puerto Rico	occurrence
		87	San Juan-Caguas-Arecibo, PR, CMSA
54-57	4	SMSARFIP	
31 37	-		Residence (FIPS)
		I IIDA/ IIDA OI	MODICIONO (FILD)
		D M-	

Primary Metropolitan Statistical Areas and Metropolitan Statistical Areas are those defined by the U.S. Office of Management and Budget as of 1990. For New England, the New England County Metropolitan Areas (NECMA's) are used. Further back in this document is a list of PMSA's, MSA's, NECMA's, and their component counties.

0000 ... Nonmetropolitan counties or foreign residents
0040-9360 ... Code range
9999 ... Area of less than 100,000 population

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline			
58	1	CNTRSPOP Population Size of County of Residence			
		Based on the results of the 1990 Census.			
		O County of 1,000,000 or more 1 County of 500,000 to 1,000,000 2 County of 250,000 to 500,000 3 County of 100,000 to 250,000 9 County of less than 100,000 Toreign resident			
59-67	9	R1A Reserved Positions			
68	1	MAGERFLG Reported Age of Mother Used Flag			
		This position is flagged whenever the mother's reported age is used. The reported age is used, if valid, when age could not be computed or when the computed age is outside the 10-54 code range.			
		Blank Reported age is not used 1 Reported age is used			
69	1	MAGEIMP Age of Mother Imputation Flag			
		Blank Age is not imputed 1 Age is imputed			
70-71	2	DMAGE Age of Mother			
		This item is: a) computed using dates of birth of mother and of delivery; b) reported; or c) imputed. This is the age item used in NCHS publications.			
		10-54 Age in single years			
72-73	2	MAGE36 Age of Mother Recode 36			
		01 Under 15 years 02 15 years			
72-73	2	MAGE36 Age of Mother Recode 36 (Cont'd)			
		03 16 years 04 17 years			

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and C	ode Out	tline
		1tem and C 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	code Out	18 years 19 years 20 years 21 years 22 years 23 years 24 years 25 years 26 years 27 years 28 years 30 years 31 years 32 years 32 years 34 years 35 years 36 years 37 years 38 years 39 years 40 years 41 years 42 years
		30 31 32 33 34 35 36 37 38 39 40 41		43 years 44 years 45 years 46 years 47 years 48 years 50 years 51 years 52 years 53 years 54 years

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
74-75	2	MAGE12 Age of Mother Recode 12
		01 Under 15 years 03 15 years 04 16 years 05 17 years 06 18 years 07 19 years 08 20 - 24 years 09 25 - 29 years 10 30 - 34 years 11 35 - 39 years 12 40 - 44 years 13 45 - 49 years 14 50 - 54 years
76	1	MAGE8 Age of Mother Recode 8 1 Under 15 years 2 15 - 19 years 3 20 - 24 years 4 25 - 29 years 5 30 - 34 years 6 35 - 39 years
		7 40 - 44 years 8 45 - 49 years 9 50 - 54 years
77	1	ORMOTH Hispanic Origin of Mother Hispanic origin is reported by all areas except Puerto Rico, and American Samoa O Non-Hispanic 1 Mexican 2 Puerto Rican 3 Cuban 4 Central or South American 5 Other and unknown Hispanic 9 Origin unknown or not stated

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline				
78	1	ORRACEM Hispanic Origin and Race of Mother Recode				
		Hispanic origin is reported by all areas except Puerto Rico, and American Samoa				
		<pre>1 Mexican 2 Puerto Rican 3 Cuban 4 Central or South American 5 Other and unknown Hispanic 6 Non-Hispanic White 7 Non-Hispanic Black 8 Non-Hispanic other races 9 Origin unknown or not stated</pre>				
79	1	MRACEIMP Race of Mother Imputation Flag				
		Blank Race is not imputed 1 Unknown race is imputed 2 All other races, formerly code 09, is imputed				
80-81	2	MRACE Race of Mother				
		United States occurrence Beginning with 1992 data, some areas started reporting additional Asian or Pacific Islander codes for race. Codes 18-68 replace old code 08 for these areas. Code 78 replaces old code 08 for all other areas. For consistency with Census race code 09 (all other races) used prior to 1992 has been imputed.				
		01 White 02 Black 03 American Indian (includes Aleuts and Eskimos) 04 Chinese 05 Japanese 06 Hawaiian (includes part-Hawaiian) 07 Filipino 18 Asian Indian 28 Korean 38 Samoan				
80-81	2	MRACE Race of Mother (Cont'd)				
		48 Vietnamese 58 Guamanian 68 Other Asian or Pacific Islander in				

1998 Detail Natality Record

Tape	Field				
<u>Location</u>	<u>Size</u>	Item and Code Outline			
		78	• • •	areas reporting codes 18-58 Combined other Asian or Pacific Islander, includes codes 18-68 for areas that do not report them separately	
		Puerto Rico			
		01	• • •	White	
		02 00	• • •	Black	
		00	• • •	Other races	
		Virgin Isla	nda oa	gurranga	
		01		White	
		02	• • •	Black	
			• • •		
		03	• • •	American Indian (includes Aleuts and	
		0.4		Eskimos)	
		04	• • •	Chinese	
		05	• • •	Japanese	
		06	• • •	Hawaiian (includes part-Hawaiian)	
		07	• • •	Filipino	
		08	• • •	Other Asian or Pacific Islander	
		Guam occurr	ence		
		01		White	
		02		Black	
		03	• • •	American Indian (includes Aleuts and Eskimos)	
		04		Chinese	
		05		Japanese	
		06		Hawaiian (includes part-Hawaiian)	
		07		Filipino	
		08		Other Asian or Pacific Islander	
		58	• • •	Guamanian	
		American Sa	moa oc	currence	
		01		White	
		02		Black	
		03		American Indian (includes Aleuts and	
				Eskimos)	
		04		Chinese	
80-81	2	MRACE			
		Race of M	other	(Cont'd)	
		05		Japanese	
		06		Hawaiian (includes part-Hawaiian)	
		07		Filipino	
		08	• • •	Other Asian or Pacific Islander	
		Northern M	ariana	s occurrence	
		01		White	
		02		Black	
		03		American Indian (includes Aleuts and	

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline		
		05 06 07		Eskimos) Chinese Japanese Hawaiian (includes part-Hawaiian) Filipino Other Asian or Pacific Islander
82	1	MRACE3 Race of Moth	er Red	<u>code</u>
		2	<u>s</u> 	White Races other than White or Black Black
83-84	2	DMEDUC Education of	Mothe	<u>er</u>
		Effective education.	with 1	1992 data, all areas report
				No formal education Years of elementary school
83-84	2	DMEDUC Education o	f Motl	<u>ner</u>
		11 12 13		<pre>1 year of high school 2 years of high school 3 years of high school 4 years of high school 1 year of college 2 years of college</pre>
		DMEDUC Education	of Mot	ther (Cont'd)
		15 16 17 99		3 years of college 4 years of college 5 or more years of college Not stated
85	1	MEDUC6 Education of	Mothe	er Recode
		1 2 3 4 5		<pre>0 - 8 years 9 - 11 years 12 years 13 - 15 years 16 years and over Not stated</pre>

1998 Detail Natality Record

Tape	Field	
Location	<u>Size</u>	Item and Code Outline
<u> 100ucion</u>	<u>5120</u>	Teem and code outline
86	1	DMARIMP
80	Τ	Marital Status of Mother Imputation Flag
		Mailtai Status Of Mother imputation riag
		Blank Marital Status is not imputed
		1 Marital Status is imputed
87	1	DMAR
0 7	_	Marital Status of Mother
		Marital status is not reported by all areas. See reporting flags.
		reporting riags.
		<pre>United States/Virgin Island/Guam/American</pre>
		Samoa/Northern Marianas
		1 Married
		2 Unmarried
		9 Unknown or not stated
		Puerto Rico
		1 Married
		2 Unmarried parents living together
		3 Unmarried parents not living
		together
		9 Unknown or not stated
88-89	2	MPLBIR
		Place of Birth of Mother
		01 Alabama
		02 Alaska
88-89	2	MPLBIR (Cont'd)
		03 Arizona
		04 Arkansas
		05 California
		06 Colorado 07 Connecticut
		00 District of Columbia
		10
		11
		10
		12 Hawaii 13 Idaho
		14 Illinois
		15 Indiana
		16 Iowa
		17 Kansas
		18 Kentucky
		19 Louisiana
		20 Maine
		21 Maryland
		22 Massachusetts
		23 Michigan
		24 Minnesota
		25 Mississippi

1998 Detail Natality Record

Tape	Field			
<u>Location</u>	<u>Size</u>	Item and	Code Out	<u>cline</u>
		0.6		
		26		Missouri
		27		Montana
		28		Nebraska
		29		Nevada
		30		New Hampshire
		31		New Jersey
		32		New Mexico
		33		New York
		34		North Carolina
		35		North Dakota
		36		Ohio
		37		Oklahoma
		38		Oregon
			• • •	_
		39	• • •	Pennsylvania
		40		Rhode Island
		41		South Carolina
		42		South Dakota
		43		Tennessee
		44		Texas

1998 Detail Natality Record

Tape	Field	
<u>Location</u>	<u>Size</u>	Item and Code Outline
88-89	2	MPLBIR
		Place of Birth of Mother (Cont'd)
		45 Utah
		46 Vermont
		47 Virginia
		48 Washington
		49 West Virginia
		50 Wisconsin
		51 Wyoming
		52 Puerto Rico
		53 Virgin Islands
		54 Guam
		61 American Samoa
		62 Northern Marianas
		55 Canada
		56 Cuba
		57 Mexico
		59 Remainder of the World
		99 Not classifiable
90	1	MPLBIRR
J 0	-	Place of Birth of Mother Recode
		Trace of Birth of Mother Reddae
		1 Native born
		2 Foreign born
		3 Unknown or not stated
01 00	0	
91-92	2	DMAGERPT
		Reported Age of Mother
		10-54 Age in single years
		99 Unknown or not stated
93	1	ADEQUACY
		Adequacy Of Care Recode (Kessner Index)
		m1.' 1 1 1 1'C' 1 **
		This recode is based on a modified Kessner criterion. Month Prenatal Care Began, Number of
		Prenatal Visits, and Gestation are the items used to
		generate this recode.
		5-1102 400 01122 200040.
		1 Adequate
		2 Intermediate
		3 Inadequate
		4 Unknown

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
94-95	2	NLBNL Number of Live Births, Now Living
		Does not include this birth or adoptions.
		00-30 Stated number of births 99 Unknown or not stated
96-97	2	NLBND Number of Live Births, Now Dead
		Does not include this birth or adoptions.
		00-30 Stated number of births 99 Unknown or not stated
98-99	2	NOTERM Number of Other Terminations
		Includes spontaneous and induced at any time after conception.
		00-30 Stated number of other terminations 99 Unknown or not stated
100-101	2	DLIVORD Detail Live Birth Order
		Sum of live births now living and now dead plus one. If either item is unknown, this item is made unknown.
		00-31 Number of children born alive to mother
		99 Unknown
102	1	LIVORD9 Live Birth Order Recode
		1 First Child 2 Second Child 3 Third Child 4 Fourth Child 5 Fifth Child

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
102	1	LIVORD9 Live Birth Order Recode (Cont'd)
		6 Sixth Child 7 Seventh Child 8 Eighth Child and over 9 Unknown or not stated
103-104	2	9 Unknown or not stated DTOTORD Detail Total Birth Order
		Sum of live birth order and other terminations. If either item is unknown, this item is made unknown.
		01-40 Total number of live births and other terminations 99 Unknown
105	1	TOTORD9 Total Birth Order Recode
		1 First Child 2 Second Child 3 Third Child 4 Fourth Child 5 Fifth Child 6 Sixth Child 7 Seventh Child 8 Eighth Child and over 9 Unknown or not stated
106-107	2	MONPRE Detail Month of Pregnancy Prenatal Care Began
		00 No prenatal care 01 1st month 02 2nd month 03 3rd month 04 4th month 05 5th month 06 6th month 07 7th month 08 8th month 09 9th month 09 9th month

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code	<u>Outline</u>
108	1	MPRE6	
		Month Prenatal	<u>Care Began Recode 6</u>
		1	1st - 2nd month
		2	
		3	
		4	
		5	No prenatal care
		6	Unknown or not stated
109	1	MPRE5	
		Month Prenatal	Care Began Recode 5
		1	1st Trimester (1st-3rd month)
		2	2nd Trimester (4th-6th month)
		3	3rd Trimester (7th-9th month)
		4	No Prenatal Care
		5	Unknown or not stated
110-111	2	NPREVIS	
		Total Number of	Prenatal Visits
		00	No prenatal visits
		01-48	
		49	49 or more visits
		99	Unknown or not stated
112-113	2	NPREV12	
		Number of Prena	tal Visits Recode
		01	No visits
		02	
		03	
		04	
		05	
		06	
		07	
		08	
		09	
		10	
		11	
		12	
		14	visits
			A T D T C D

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
114-121	8	LMPDATE Date Last Normal Menses Began
114-115	2	<u>LMPMON</u> Month Last Normal Menses Began
		01 January 02 February 03 March 04 April 05 May 06 June 07 July 08 August 09 September 10 October 11 November 12 December 99 Unknown or not stated month of LMP
116-117	2	LMPDAY Day Last Normal Menses Began
		01-31 As applicable to month of LMP 99 Unknown or not stated day of LMP
118-121	4	LMPYR Year Last Normal Menses Began
		1996 1996 1997 1997 9999 Unknown or not stated year of LMP
122-132	11	R8 Item was dropped in 1994
		R8A Reserved Position
133-137	5	Imputed Birthweight
		Created beginning with 1995 data
133	1	BWIMP Imputed Birthweight Flag
		Blank Birthweight is not imputed 1 Birthweight is imputed

1998 Detail Natality Record

Tape	Field	
Location	<u>Size</u>	Item and Code Outline
134-137	4	<pre>Imputed Birthweight 0227-8165 Number of grams</pre>
138-152	15	R2 Reserved Positions
153	1	FAGERFLG Reported Age of Father Used Flag
		This position is flagged whenever the father's reported age in years is used. The reported age is used, if valid, when age derived from date of birth is not available or when it is less than 10.
		Blank Reported age is not used 1 Reported age is used
154-155	2	<u>DFAGE</u> <u>Age of Father</u>
		This item is either computed from date of birth of father and of child or is the reported age. This is the age item used in NCHS publications.
		10-98 Age in single years 99 Unknown or not stated
156-157	2	FAGE11 Age of Father Recode
		01 Under 15 years 02 15 - 19 years 03 20 - 24 years 04 25 - 29 years 05 30 - 34 years 06 35 - 39 years 07 40 - 44 years 08 45 - 49 years

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
156-157	2	FAGE11 Age of Father Recode (Cont'd)
		09 50 - 54 years 10 55 - 98 years 11 Not stated
158	1	ORFATH Hispanic Origin of Father
		Hispanic origin of father is reported by all areas except Puerto Rico, Northern Marianas and American Samoa
		<pre>0 Non - Hispanic 1 Mexican 2 Puerto Rican 3 Cuban 4 Central or South American 5 Other and unknown Hispanic 9 Origin unknown or not stated</pre>
159	1	ORRACEF Hispanic Origin and Race of Father Recode
		Hispanic origin of father is reported by all areas except Puerto Rico, Northern Marianas and American Samoa.
		1 Mexican 2 Puerto Rican 3 Cuban 4 Central or South American 5 Other and unknown Hispanic 6 Non - Hispanic White 7 Non - Hispanic Black 8 Non - Hispanic other or unknown race 9 Origin unknown or not stated

1998 Detail Natality Record

Tape	Field			
Location	<u>Size</u>	Item and	Code Out	:line
160-161	2	FRACE		
100 101	_	Race of F	ather	
		United St		urrence
				1992 data, some areas started
				ional Asian or Pacific Islander codes
				s 18-68 replace old code 08 for these
		areas.		replaces old code 08 for all other
		areas.		sistency with Census race code 09
		(all ot		s) used prior to 1992 has been
		Changed		·
		01		White
		02	• • •	Black
		03	• • •	American Indian (includes Aleuts and
				Eskimos)
		04	• • •	Chinese
		05	• • •	Japanese
		06	• • •	Hawaiian (includes part-Hawaiian)
		07	• • •	Filipino Asian Indian
		18	• • •	
		28 38	• • •	Korean
		48	• • •	Samoan Vietnamese
		58	• • •	Guamanian
		68	• • •	Other Asian or Pacific Islander in
		00	• • •	areas reporting codes 18-58
		78		Combined other Asian or Pacific
		70	• • •	Islander, includes codes 18-68 for
				areas that do not report them
				separately
		99		Unknown or Not Stated
		<u>Puerto Ri</u>	co occuri	rence
		01		White
		02	• • •	Black
		00	• • •	Other races
		99	• • •	Unknown or not stated
		Virgin Is	lands occ	currence
		01		White
		02		Black
		03		American Indian (includes Aleuts and
				Eskimos)
		04		Chinese
		05		Japanese
		06		Hawaiian (includes part-Hawaiian)
		07		Filipino
160-161	2	FRACE		
100 101	4	Race of F	ather (Co	ont'd)
		<u> </u>		
		08		Other Asian or Pacific Islander
		99		Unknown or Not Stated

1998 Detail Natality Record

Tape	Field
<u>Location</u>	Size

Item and Code Outline

Guam occu	rrence	
01		White
02		Black
03	• • •	American Indian (includes Aleuts and Eskimos)
04		Chinese
05		Japanese
06		Hawaiian (includes part-Hawaiian)
07		Filipino
08		Other Asian or Pacific Islander
58		Guamanian
99		Unknown or Not Stated
American	Samoa c	occurrence
	Samoa c	occurrence White
American	Samoa c	
American 01	Samoa c	White
American 01 02	Samoa c	White Black
American 01 02	Samoa c	White Black American Indian (includes Aleuts and
<u>American</u> 01 02 03	Samoa c	White Black American Indian (includes Aleuts and Eskimos)
<u>American</u> 01 02 03		White Black American Indian (includes Aleuts and Eskimos) Chinese
American 01 02 03 04 05		White Black American Indian (includes Aleuts and Eskimos) Chinese Japanese
American 01 02 03 04 05 06		White Black American Indian (includes Aleuts and Eskimos) Chinese Japanese Hawaiian (includes part-Hawaiian)

1998 Detail Natality Record

Tape	Field	
<u>Location</u>	<u>Size</u>	Item and Code Outline
		Northern Marianas occurrence
		01 White
		02 Black
		03 American Indian (includes Aleuts and Eskimos
		04 Chinese
		05 Japanese
		06 Hawaiian (includes part-Hawaiian)
		07 Filipino
		08 Other Asian or Pacific Islander
162	1	FRACE4
		Race of Father Recode
		1 White
		2 Races other than White, Black, or unknown
		3 Black
		4 Unknown or not stated
163-165	3	R2A
		Reserved positions
		Item was dropped in 1995
166-167	2	DFAGERPT
		Reported Age of Father
		10-98 Age in single years
		99 Unknown or not stated

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
168	1	FRACEIMP Race of Father Imputation Flag
		(Unknown race of father is not imputed. However, the all other races code is changed to unknown.)
		Blank Race is not changed 3 All other races, formerly code 09, is changed to code 99
169	1	R3 Reserved Position
170	1	CDOBMIMP Month of Birth of Child Imputation Flag
		Blank Month is not imputed 1 Month is imputed
171	1	RB Reserved Position
172-173	2	BIRMON Month of Birth
		01 January
		02 February
		03 March
		04 April
		05 May
		06 June
		07 July 08 August
		09 September
		10 October
		11 November
		12 December
174 175	2	T.G.
174-175	2	<u>RC</u> Reserved Positions
176-179	4	BIRYR Year of Birth
		1998 1998
180	1	WEEKDAY Day of Week Child Born
		1 Sunday
		2 Monday
		3 Tuesday

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
		4 Wednesday 5 Thursday 6 Friday 7 Saturday
181	1	GESTESTM Clinical Estimate of Gestation Used Flag
		This position is flagged whenever the clinical estimate of gestation is used. It is used when gestation could not be computed or when the computed gestation is outside the 17-47 code range.
		Blank Clinical Estimate is not used 1 Clinical Estimate is used
182	1	GESTIMP Gestation Imputation Flag
		Blank Gestation is not imputed 1 Gestation is imputed
183-184	2	<u>DGESTAT</u> <u>Gestation - Detail in Weeks</u>
		This item is: a) computed using dates of birth of child and last normal menses; b) imputed from LMP

This item is: a) computed using dates of birth of child and last normal menses; b) imputed from LMP date; c) the clinical estimate; or d) unknown when there is insufficient data to impute or no valid clinical estimate. This is the gestation item used in NCHS publications.

17-47 ... 17th through 47th week of gestation 99 ... Unknown

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Ou	utline
185-186	2	GESTAT10 Gestation Recode	10
		01 02 03 04 05 06	Under 20 weeks 20 - 27 weeks 28 - 31 weeks 32 - 35 weeks 36 weeks 37 - 39 weeks 40 weeks
			40 weeks 41 weeks 42 weeks and over Not stated
187	1	GESTAT3 Gestation Recode	<u>3</u>
		1 2 3	Under 37 weeks 37 weeks and over Not stated
188	1	CSEXIMP Sex Imputation F	
189	1	Blank 1 <u>CSEX</u> <u>Sex</u>	Sex is not imputed Sex is imputed
		1	_
190-192	3	RD Reserved Position	n <u>s</u>
193-196	4	DBIRWT Birth Weight - De 0227-8165 9999	Number of grams
197-198	2	BIRWT12 Birth Weight Reco	
197-198	2	02 BIRWT12 Birth Weight Reco	ode 12 Cont'd 1000 - 1499 grams
		04 05	1500 - 1999 grams 2000 - 2499 grams

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
		06 2500 - 2999 grams 07 3000 - 3499 grams 08 3500 - 3999 grams 09 4000 - 4499 grams 10 4500 - 4999 grams 11 5000 - 8165 grams 12 Not stated
199	1	BIRWT4 Birth Weight Recode 4
		1 1499 grams or less 2 1500 - 2499 grams 3 2500 - grams or more 4 Unknown or not stated
200	1	PLURIMP Plurality Imputation Flag
201	1	Blank Plurality is not imputed 1 Plurality is imputed DPLURAL Plurality
		<pre>1 Single 2 Twin 3 Triplet 4 Quadruplet 5 Quintuplet or higher</pre>
202-204	3	R6 Reserved positions
		Item was dropped in 1995
205-206	2	<u>FMAPS</u> <u>Five Minute Apgar Score</u>
		Apgar Score is not reported by all areas. See reporting flags.
205-206	2	<u>FMAPS</u> Five Minute Apgar Score Cont'd
		00-10 A score of 0-10 99 Unknown or not stated
207	1	FMAPSR Five Minute Apgar Score Recode
		Apgar Score is not reported by all areas. See reporting flags.

1998 Detail Natality Record

Tape	Field	
Location	<u>Size</u>	Item and Code Outline
		1 A score of 0-3
		2 A score of 4-6
		3 A score of 7-8
		4 A score of 9-10
		5 Not stated
208-209	2	CLINGEST
		Clinical Estimate of Gestation
		Clinical estimate is not reported by all areas. See
		reporting flags.
		reporting reags.
		17 47 Estimated sestation in weeks
		17-47 Estimated gestation in weeks
010 016		99 Unknown or not stated
210-216	7	<u>R4</u>
		Reserved Positions
217-306	90	<u>MEDINFO</u>
		<u>Medical and Health Data</u>

Some States do not report an entire item while other States do not report all of the categories within an item.

If an item is not reported, it is indicated by code zero in the appropriate reporting flag.

If a category within an item is not reported it is indicated by code 8 in the position for that category.

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
217-222	6	DELMETH Method of Delivery
		Each method is assigned a separate position, and the code structure for each method (position) is:
		1 The method was used 2 The method was not used 8 Method not on certificate 9 Method unknown or not stated
217	1	VAGINAL Vaginal
218	1	VBAC Vaginal birth after previous C-section
219	1	PRIMAC Primary C -section
220	1	REPEAC Repeat C -section
221	1	FORCEP Forceps
222	1	VACUUM Vacuum
223	1	RESERVED POSITION
224	1	DELMETH5 Method of Delivery Recode
		<pre>1 Vaginal (excludes vaginal after</pre>
		2 Vaginal birth after previous C-section
		3 Primary C -section 4 Repeat C -section 5 Not stated

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
225-241	17	MEDRISK Medical Risk Factors
		Each risk factor is assigned a separate position, and the code structure for each risk factor (position) is:
		1 Factor reported 2 Factor not reported 8 Factor not on certificate 9 Factor not classifiable
225	1	ANEMIA Anemia (Hct.<30/Hgb.<10)
226	1	CARDIAC Cardiac disease
227	1	<u>LUNG</u> Acute or chronic lung disease
228	1	<u>DIABETES</u> <u>Diabetes</u>
229	1	HERPES Genital herpes
230	1	HYDRA Hydramnios/Oligohydramnios
231	1	HEMO Hemoglobinopathy
232	1	CHYPER Hypertension, chronic
233	1	PHYPER Hypertension, pregnancy-associated
234	1	ECLAMP Eclampsia
235	1	INCERVIX Incompetent cervix
236	1	PRE4000 Previous infant 4000+ grams
237	1	<pre>PRETERM Previous preterm or small-for-gestational-age infant</pre>
238	1	RENAL Renal disease

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
239	1	RH Rh sensitization
240	1	UTERINE Uterine bleeding
241	1	OTHERMR Other Medical Risk Factors
242-252	11	OTHERRSK Other Risk Factors for this Pregnancy
242-245	4	TOBACRSK Tobacco Risks
242	1	TOBACCO Tobacco Use During Pregnancy
243-244	2	1 Yes 2 No 9 Unknown or not stated CIGAR
243-244	2	Average Number of Cigarettes Per Day
		00-97 As stated 98 98 or more cigarettes per day 99 Unknown or not stated
245	1	CIGAR6 Average Number of Cigarettes Per Day Recode
		Nonsmoker 1

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
246-249	4	ALCOHRSK Alcohol
246	1	ALCOHOL Alcohol Use During Pregnancy
		1 Yes 2 No 9 Unknown or not stated
247-249	2	DRINK Average Number of Drinks Per Week
		00-97 As stated 98 98 or more drinks per week 99 Unknown or not stated
249	1	DRINK5 Average Number of Drinks Per Week Recode
		<pre>0 Non drinker 1 1 drink per week 2 2 drinks per week 3 3 - 4 drinks per week 4 5 or more drinks per week 5 Unknown or not stated</pre>
250-252	3	WTGANRSK Weight Gain During Pregnancy
250-251	2	WTGAIN Weight Gain
		00-97 Stated number of pounds 98 98 pounds or more 99 Unknown or not stated

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
252	1	<u>WTGAIN9</u> <u>Weight Gain Recode</u>
		<pre>1</pre>
253-259	7	OBSTETRC
		Obstetric Procedures
		Each procedure is assigned a separate position, and the code structure for each procedure (position) is: 1 Procedure reported 2 Procedure not reported 8 Procedure not on certificate 9 Procedure not classifiable
253	1	AMNIO Amniocentesis
254	1	MONITOR Electronic fetal monitoring
255	1	INDUCT Induction of labor
256	1	STIMULA Stimulation of labor
257	1	TOCOL Tocolysis
258	1	ULTRAS Ultrasound
259	1	OTHEROB Other Obstetric Procedures
260-275	16	<u>LABOR</u> <u>Complications of Labor and/or Delivery</u>

Each complication is assigned a separate position, and the code structure for each complication (position) is:

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
		Complication reported Complication not reported Complication not on certificate Complication not classifiable
260	1	<pre>FEBRILE Febrile (>100 degrees F. or 38 degrees C.)</pre>
261	1	MECONIUM Meconium, moderate/heavy
262	1	<pre>RUPTURE Premature rupture of membrane (>12 hours)</pre>
263	1	ABRUPTIO Abruptio placenta
264	1	PREPLACE Placenta previa
265	1	EXCEBLD Other excessive bleeding
266	1	SEIZURE Seizures during labor
267	1	<pre>PRECIP Precipitous labor (<3 hours)</pre>
268	1	PROLONG Prolonged labor (>20 hours)
269	1	DYSFUNC Dysfunctional labor
270	1	BREECH Breech/Malpresentation
271	1	CEPHALO Cephalopelvic disproportion
272	1	CORD Cord prolapse
273	1	ANESTHE Anesthetic complications
274	1	DISTRESS Fetal distress
275	1	OTHERLB Other Complication of Labor and/or Delivery

1998 Detail Natality Record

Tape Location	Field <u>Size</u>	Item and Code Outline
276-284	9	NEWBORN Abnormal Conditions of the Newborn
		Each condition is assigned a separate position, and the code structure for each condition (position) is:
		Condition reported Condition not reported Condition not on certificate Condition not classifiable
276	1	NANEMIA Anemia (Hct.<39/Hgb.<13)
277	1	INJURY Birth injury
278	1	ALCOSYN Fetal alcohol syndrome
279	1	HYALINE Hyaline membrane disease
280	1	MECONSYN Meconium aspiration syndrome
281	1	VENL30 Assisted ventilation, less than 30 minutes
282	1	VEN30M Assisted ventilation, 30 minutes or more
283	1	<u>NSEIZ</u> <u>Seizures</u>
284	1	OTHERAB Other Abnormal Conditions of the Newborn
285-306	22	CONGENIT Congenital Anomalies
		Each anomaly is assigned a separate position, and the code structure for each anomaly (position) is:
		1 Anomaly reported 2 Anomaly not reported 8 Anomaly not on certificate 9 Anomaly not classifiable
285	1	ANEN Anencephalus

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
286	1	SPINA Spina bifida/Meningocele
287	1	HYDRO Hydrocephalus
288	1	MICROCE Microcephalus
289	1	NERVOUS Other central nervous system anomalies
290	1	HEART Heart malformations
291	1	<pre>CIRCUL Other circulatory/respiratory anomalies</pre>
292	1	RECTAL Rectal atresia/stenosis
293	1	TRACHEO Tracheo - esophageal fistula/Esophageal atresia
294	1	OMPHALO Omphalocele/Gastroschisis
295	1	GASTRO Other gastrointestinal anomalies
296	1	GENITAL Malformed genitalia
297	1	RENALAGE Renal agenesis
298	1	UROGEN Other urogenital anomalies
299	1	<pre>CLEFTLP Cleft lip/palate</pre>
300	1	ADACTYLY Polydactyly/Syndactyly/Adactyly
301	1	Club foot
302	1	<u>HERNIA</u> Diaphragmatic hernia
303	1	MUSCULO

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
		Other musculoskeletal/integumental anomalies
304	1	DOWNS Down's syndrome
305	1	CHROMO Other chromosomal anomalies
306	1	OTHERCON Other Congenital Anomalies
307-326	20	<u>FLRES</u> <u>Reporting Flags for Place of Residence</u>
		These positions contain flags to indicate whether or not the specified item is included on the birth certificate of the State of residence or of the MSA of residence. The code structure for each flag (position) is:
		O The item is not reported The item is reported or partially reported.
307	1	ORIGM Origin of mother
308	1	ORIGF Origin of father
309	1	EDUCM Education of mother
310	1	EDUCF Education of father
311	1	GESTE Clinical estimate of gestation
312	1	R6A Reserved position
313	1	FMAPSRF 5 - minute Apgar score
314	1	<pre>DELMETRF Method of delivery</pre>
315	1	MEDRSK Medical risk factors
316	1	TOBUSE Tobacco use

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Code Outline
317	1	ALCUSE Alcohol use
318	1	WTGN Weight gain
319	1	OBSTRC Obstetric procedures
320	1	CLABOR Complications of labor and/or delivery
321	1	ABNML Abnormal conditions of newborn
322	1	CONGAN Congenital anomalies
323	1	Reserved Position
324	1	EDUCSMSA Education of Mother (Based on MSA)
325	1	APIFLAG Race codes 18-68 reported (beginning with 1992 data)
326-346	21	R7 Reserved positions
347-349	3	SMSARES PSMA/MSA of Residence (NCHS)
		Primary Metropolitan Statistical Areas and Metropolitan Statistical Areas are those defined by the U.S. Office of Management and Budget (OMB) as of June 30, 1990. For New England, the New England County Metropolitan Areas (NECMA's) are used.
		Further back in this document is a list of PMSA's, MSA's, NECMA's, and their component counties.
		000 Nonmetropolitan counties 001-320 Code range 999 Area of less than 100,000 population ZZZ Foreign residents
350	1	POPSMAS PMSA/MSA Population Size

Based on 1990 Census county population counts

1998 Detail Natality Record

Tape <u>Location</u>	Field <u>Size</u>	Item and Co	ode Out	tline
		1 2 9		Area of 250,000 or more Area of 100,000 to 250,000 Area of less than 100,000 or
		Z		nonmetropolitan area Foreign resident

Vital Statistics Geographic Code Outline for the United States

The following pages show in detail the geographic codes used by the Division of Vital Statistics in the processing of vital event data occurring in the United States. When an event occurs to a nonresident of the United States, residence data are coded only to the "State" level; several western hemisphere countries or the remainder of the world are uniquely identified. Along with the Division of Vital Statistics codes the Federal Information Processing Standards (FIPS) codes are shown for several items. Both sets of codes appear on the vital event public-use files. The Metropolitan Statistical Area codes are effective with the 1996 data year and are based on the 1990 Census.

To aid the user in interpreting the geographic codes, a brief explanation of the codes and of the column headings/abbreviations shown on the following pages are:

State (St): Each State and the District of Columbia are numbered alphabetically. In addition, several unique codes are used to identify nonresidents of the U.S.

County (Cnty): Counties and county equivalents (independent and coextensive cities) are numbered alphabetically within each State.

P/MSA: Primary metropolitan statistical areas and metropolitan statistical areas are those established by the U.S. Office of Management and Budget (OMB) using 1990 Census population counts. For New England, the New England County Metropolitan Areas (NECMA) are used.

M/NM: Metropolitan counties (code 1) are component counties of P/MSA's. Nonmetropolitan counties (code 2) are not part of any P/MSA.

City or place: Cities/places are numbered alphabetically within each State and identify each city with a population of 10,000 or more in 1990.

P/S: Population size code for city of residence based on the 1990 Census. Refer to the code outline given earlier in this document for specific codes and meanings.

Name: Each State, county, and city name is listed along with its respective code. In addition, places used to identify nonresidents of the U.S. are also listed along with their codes.

FIPS: For an explanation of FIPS codes, reference should be made to various National Institute of Standards & Technology (NITS) publications.

So! How do I find Yavapai county, Arizona; or Tupelo city, Mississippi?

Since counties and cities/places are numbered within State, the State and county or the State and city/places codes must be used to select these areas. It is most helpful if the county is known when looking for a particular city since areas are shown by State, county, and city.

Yavapai county, Arizona - State and county codes NCHS: 03 014; FIPS: 04 025.

Tupelo, Mississippi - State and city/place codes NCHS: 25 032; FIPS: 28 74840;
or State, county, city/place codes NCHS: 25 041 032; FIPS: 28 081 74840.

Vital Statistics Geographic Code Outline for Puerto Rico, Virgin Islands, Guam, American Samoa and Northern Marianas

The following pages show in detail the geographic codes used by the Division of Vital Statistics in the processing of vital event data occurring in Puerto Rico, the Virgin Islands, or Guam. When an event occurs to a nonresident of these areas, residence data are coded only to the "State" level; each U.S. state, several western hemisphere countries or the remainder of the world are uniquely identified. Along with the Division of Vital Statistics codes, the Federal Information Processing Standards (FIPS) codes are shown for several items. Both sets of codes appear on the vital event public-use files. Codes are effective with the 1994 data year and are based on results of the 1990 Census.

To aid the user in interpreting the geographic codes, a brief explanation of the codes and of the column headings/abbreviations shown on the following pages are:

Puerto Rico:

State (St): Puerto Rico has its own unique code. In addition, several unique codes are used to identify nonresidents of Puerto Rico.

County (Cnty): Each municipio (county equivalent) is numbered alphabetically.

P/MSA: Primary metropolitan statistical areas and metropolitan statistical areas are those established by the U.S. Office of Management and Budget (OMB) using 1990 Census population counts.

M/NM: Metropolitan counties (code 1) are component counties of P/MSA's. Nonmetropolitan counties (code 2) are not part of any P/MSA.

City or Place: No city/places in Puerto Rico are identified.

Name: Puerto Rico and each municipo are listed along with their respective codes. In addition, places used to identify nonresidents of Puerto Rico are also listed along with their codes.

FIPS: For an explanation of FIPS codes, reference should be made to various National Institute of Standards and Technology (NIST) publications.

Virgin Islands:

State (St): The Virgin Islands has its own unique code. In addition, several unique codes are used to identify nonresidents of the Virgin Islands.

County (Cnty): Several Islands (county equivalent) are numbered alphabetically.

P/MSA: None are identified in the Virgin Islands.

M/NM: No metropolitan areas are identified for the Virgin Islands.

City or Place: City/places are numbered alphabetically within each State and identify each city with a population of 10,000 or more in 1990.

P/S: Population size code for city of residence based on the 1990 Census.

Refer to the code outline given earlier in this document for specific codes and meanings.

Name: The Virgin Islands as a whole and several islands are listed along with their respective codes. In addition, places used to identify nonresidents of the Virgin Islands are also listed along with their codes.

Guam:

State (St): Guam has its own unique code. In addition, several unique codes are used to identify nonresidents of Guam.

County (Cnty): None are identified in Guam

P/MSA: None are identified in Guam.

M/NM: No metropolitan areas are identified for Guam.

City or Place: None are identified in Guam.

P/S: No population size groups are identified for Guam.

Name: Guam as a whole is listed along with its respective code. In addition, places used to identify nonresidents of Guam are also listed along with their codes.

American Samoa:

State (St): American Samoa has its own unique code. In addition, several unique codes are used to identify nonresidents of American Samoa.

County (Cnty): None are identified in American Samoa

P/MSA: None are identified in American Samoa.

M/NM: No metropolitan areas are identified for American Samoa.

City or Place: None are identified in American Samoa.

P/S: No population size groups are identified for American Samoa.

Name: American Samoa as a whole is listed along with its respective code. In addition, places used to identify nonresidents of American Samoa are also listed along with their codes.

Northern Marianas:

State (St): Northern Marianas has its own unique code. In addition, several unique codes are used to identify nonresidents of Northern Marianas.

County (Cnty): None are identified in Northern Marianas.

P/MSA: None are identified in Northern Marianas.

M/NM: No metropolitan areas are identified for Northern Marianas.

City or Place: None are identified in Northern Marianas.

P/S: No population size groups are identified for Northern Marianas.

Name: Northern Marianas as a whole is listed along with its respective code.

In addition, places used to identify nonresidents of Northern Marianas are also listed along with their codes.

		`	Vitai	Stat	istic	Effective With 1998 Data.	e unite	ea Si	tates		Pag	e 1
St (Statis P/MSA			P/S	Area Names					Codes P/MSA	Place
01	001	188	1			Alabama Autauga		01	001	5	5240	
			_	035	6	Prattville, part				_		62328
	002	184	1	999	9	Balance of county Baldwin			003	4	5160	99999
	002		_	010	6	Daphne			000	-	5200	19648
	003	000	2	999	9	Balance of county Barbour			005	5	0000	99999
	003	000	2	014	6	Eufaula			003	5	0000	24568
	004	000	2	999 999	9 9	Balance of county Bibb			007	6	0000	99999
	005	032	1	999	9	Blount			009	5	1000	
	006 007	000 000	2 2	999 999	9	Bullock Butler			011 013	6 6	0000 0000	
	008	012	ĺ		-	Calhoun			015	3	0450	
				$004 \\ 024$	5 6	Anniston Jacksonville						01852 38272
				999	9	Balance of county						99999
	009 010	000 000	2	999 999	9 9 9	Chambers Cherokee			017 019	5 6	0000 0000	
	011	000	2	999	9	Chilton			021	5	0000	
	012 013	000 000	2 2 2 2 2 2	999 999	9 9	Choctaw			023 025	6	0000 0000	
	$013 \\ 014$	000	2	999	9	Clarke Clay			025	5	0000	
	015	000	2	999	9	Cleburne Coffee			029	6 5	0000	
	016	000	4	013	6	Enterprise, part			031	5	0000	24184
	017	094	1	999	9	Balance of county Colbert			033	4	2650	99999
	017	094	Τ.	040	6	Sheffield			033	4	2030	69648
	018	000	2	999 999	9 9 9	Balance of county Conecuh			035	6	0000	99999
	019	000	2 2	999	9	Coosa			035	6	0000	
	020	000	2	999 999	9 9	Covington			039	5 6	0000	
	021 022	000 000	2	999	9	Crensĥaw Cullman			041 043	4	0000 0000	
				009 999	6 9	Cullman						18976
	023	077	1	999	9	Balance of county Dale			045	5	2180	99999
				012 013	4 6	Dothan, part						21184 24184
				033	6	Enterprise, part Ozark						57648
	024	000	2	999	9	Balance of county Dallas			047	5	0000	99999
	024	000	4	039	6	Selma			047	5	0000	69120
	025	000	2	999	9	Balance of county De Kalb			049	4	0000	99999
	023	000	2	017	6	Fort Payne			019	7	0000	27616
	026	188	1	999	9	Balance of county Elmore			051	5	5240	99999
	020	100	_	035	6	Prattville, part			031	5	3240	62328
	027	000	2	999 999	9 9	Balance of county Escambia			053	5	0000	99999
	028	105	ī		-	Etowah			055	4	2880	
				018 999	5 9	Gadsden Balance of county						28696 99999
	029	000	2	999		Fayette			057	6	0000	
	030 031	000 000	2 2	999 999	9 9 9	Franklin Geneva			059 061	5 6	0000 0000	
	032	000	2	999		Greene			063	6	0000	
	033 034	000 000	2 2	999 999	9 9	Hale Henry			065 067	6 6	0000 0000	
	035	077	ĺ		-	Houston			069	4	2180	
				012 999	4 9	Dothan, part Balance of county						21184 99999
	036	000	2		-	Jackson			071	5	0000	
				038 999	6 9	Scottsboro Balance of county						68736 99999
	037	032	1		-	Jefferson			073	1	1000	
				007 008	5 2	Bessemer Birmingham, part						05980 07000
				015	6	Fairfield						25120
				020 021	6 5	Homewood Hoover, part						35800 35896
				022	6	Hueytown						36448

77.	4-1	Q+ - +		Q1 -		Effective With 1998 Data.			D.C. C		
		Statis				Area Names	S+		PS C	odes P/MSA	Place
	21107	1 / 11011	11/ 1111	CICI	1,5			CIICI	1,0	1 / 11011	riace
01	037					Alabama Jefferson, con.	01	073	1	1000	
	03,			030	6	Mountain Brook		075	_	1000	51696
				046	6	Vestavia Hills					78552
				999	9	Leeds, part					99999
	038	000	2	999 999	9 9	Balance of county		075	6	0000	99999
	039	094	ĺ	222	9	Lamar Lauderdale		073	4	2650	
	033	0,5 1	_	016	5	Florence		0 7 7	-	2000	26896
				999	9	Balance of county					99999
	040	072	1	999	9	Lawrence		079	5	2030	
	041	000	2	006	5	Lee Auburn		081	4	0000	03076
				032	6	Opelika					57048
				034	5	Phenix City, part					59472
				999	9	Balance of county			_		99999
	042	129	1	005	_	Limestone		083	4	3440	00056
				005 011	6	Athens Decatur, part					02956 20104
				023	5	Huntsville, part					37000
				027	6	Madison, part					45784
			_	999	9	Balance of county			_		99999
	043	000	2	999	9	Lowndes		085	6	0000	
	044	000	2	045	6	Macon Tuskeqee		087	6	0000	77304
				999	9	Balance of county					99999
	045	129	1		_	Madison		089	3	3440	
				023	3	Huntsville, part					37000
				027	6	Madison, part					45784
	046	000	2	999 999	9 9	Balance of county Marengo		091	6	0000	99999
	047	000	2	999	9	Marion		093	5	0000	
	048	000	2			Marshall		095	4	0000	
				002	6	Albertville					00988
	040	104	1	999	9	Balance of county		007	2	F160	99999
	049	184	1	028	3	Mobile Mobile		097	2	5160	50000
				036	5	Prichard					62496
				037	6	Saraland					68160
			_	999	9	Balance of county			_		99999
	050	000	2	999	9	Monroe		099 101	6 3	0000	
	051	188	1	029	3	Montgomery Montgomery		101	3	5240	51000
				999	9	Balance of county					99999
	052	072	1			Morgan		103	3	2030	
				011	5 6	Decatur, part					20104
				019 999	6 9	Hartselle Palance of county					33448 99999
	053	000	2	999	9	Balance of county Perry		105	6	0000	2222
	054	000	2	999	9	Pickens		107	6	0000	
	055	000	2		_	Pike		109	5	0000	
				043	6	Troy					76920
	056	000	2	999 999	9 9	Balance of county Randolph		111	6	0000	99999
	057	063	ī	222	,	Russell		113	5	1800	
				034	5	Phenix City, part					59472
			_	999	9	Balance of county					99999
	058	032	1	000	0	St. Clair		115	4	1000	99999
				999 999	9 9	Balance of county Leeds, part					99999
	059	032	1	222	,	Shelby		117	4	1000	
				001	6	Alabaster					00820
				008	2	Birmingham, part					07000
				021 999	5	Hoover, part					35896
				999	9 9	Leeds, part Balance of county					99999 99999
	060	000	2	999	9	Sumter		119	6	0000	,,,,,
	061	000	2		_	Talladega		121	4	0000	
				041	6	Sylacauga					74352
				042 999	6 9	Talladega Balance of county					74592 99999
	062	000	2	223)	Tallapoosa		123	5	0000	JJJ33
		-		003	6	Alexander City			-		01132
	0.60	005	-1	999	9	Balance of county		105	2	0.600	99999
	063	287	1	031	6	Tuscaloosa Northport		125	3	8600	55200
				0.21	U	MOT CLIDOT C					JJ200

		Z	/ital	Stati	stic	cs Geographic	c Code Outline For e With 1998 Data.	The	United :	States	3	Pag	e 3
		Statis	stics	Codes	3	Area Names	with 1990 bata.			FI	PS C	Codes P/MSA	Place
01 06	3			044	4	Alabama Tuscaloosa Tuscaloo			01	125	3	8600	77256
06	54	000	2	999 025	9	Walker Jasper	of county			127	4	0000	99999 38416
06 06 06	6	000 000 000	2 2 2	999 999 999	9 9 9 9	Balance Washington Wilcox Winston	of county n			129 131 133	6 6 6	0000 0000 0000	99999

Effective With 1998 Data.											
7	/ital	Statis	stics	Codes	3			FI	IPS (Codes	
						Area Names	St.			P/MSA	Place
	2	_ ,	,	1	- , -			2	- ,	_ ,	
02	0.01	0.00	•				02	010	_	0000	
	001	000	2	999	9	Aleutians East		013	6	0000	
	002	000	2	999	9	Aleutians West		016	6	0000	
	003	010	1 2	001	3	Anchorage, coext. with Anchorage city	7	020	3	0380	03000
	004	000	2	999	9 9	Bethel		050	6	0000	
	005	000	2	999	9	Bristol Bay		060	6	0000	
	006	000		999	9	Dillingham		070	6	0000	
	007	000	2		_	Fairbanks North Star		090	4	0000	
				002	5	Fairbanks					24230
			_	999	9	Balance of area			_		99999
	008	000	2	999	9	Haines		100	6	0000	
	009	000	2	003	5	Juneau, coext, with Juneau city		110	5	0000	36400
	010	000	2 2 2	999	9	Kenai Peninsula		122	5	0000	
	011	000	2	999	9	Ketchikan Gateway		130	6	0000	
	012	000	2	999	9	Kodiak Island		150	6	0000	
	013	000	2	999	9	Lake and Peninsula		164	6	0000	
	014	000	2	999	9	Matanuska-Susitna		170	5	0000	
	015	000	2	999	9	Nome		180	6	0000	
	016	000	2	999	9	North Slope		185	6	0000	
	017	000	2	999	9	Northwest Arctic		188	6	0000	
	018	000	2	999	9	Prince of Wales-Outer Ketchikan		201	6	0000	
	019	000	2	999	9	Sitka		220	6	0000	
	020	000	2	999	9	Skagway-Hoonah-Angoon		232	6	0000	
	021	000	2	999	9	Southeast Fairbanks		240	6	0000	
	022	000	2	999	9	Valdez-Cordova		261	6	0000	
	023	000	2	999	9	Wade Hampton		270	6	0000	
	024	000	2	999	9	Wrangell-Petersburg		280	6	0000	
	025	000	2	999	9	Yakutat		282	6	0000	
	026	000	2	999	9	Yukon-Koyukuk		290	6	0000	

						Effective With 1998 Data.					
Q.		Statis				Auga Namas	a -			codes	D]
	_	P/MSA	M/NM	City	P/S	Area Names		Cnty	P/S	P/MSA	Place
0.3			_		_	Arizona	04		_		
	001	000	2	999	9	Apache		001	4	0000	
	002	000	2	000	_	Cochise		003	4	0000	20050
				006 020	6 5	Douglas Sierra Vista					20050 66820
				999	9	Balance of county					99999
	003	000	2	222	J	Coconino		005	4	0000	2222
	003	000	4	007	5	Flagstaff		003	-	0000	23620
				999	9	Balance of county					99999
	004	000	2	999	9	Gila		007	5	0000	
	005	000	2 2	999	9	Graham		009	5	0000	
	006	000	2	999	9	Greenlee		011	6	0000	
	007	000	2	999	9	La Paz		012	6	0000	
	008	215	1	001	_	Maricopa		013	0	6200	00000
				001 002	6 6	Apache Junction, part Avondale					02830 04720
				002	4	Chandler					12000
				008	6	Fountain Hills					25300
				009	5	Gilbert					27400
				010	3	Glendale					27820
				013	2	Mesa					46000
				015	6	Paradise Valley					52930
				016	4	Peoria					54050
				017 019	1	Phoenix					55000 65000
				019	3	Scottsdale Tempe					73000
				999	9	Balance of county					99999
	009	159	1)	Mohave		015	4	4120	
	000	133	-	003	6	Bullhead City		013	-	1120	08255
				011	6	Kingman					37620
				012	6	Lake Havasu City					39370
			_	999	9	Balance of county					99999
	010	000	2	999	9	Navajo		017	4	0000	
	011	285	1	000	2	Pima		019	1	8520	77000
				022 999	2 9	Tucson Balance of county					99999
	012	215	1	222	9	Pinal		021	3	6200	22222
	012	213	_	001	6	Apache Junction, part		021	5	0200	02830
				004	6	Casa Grande					10530
				999	9	Balance of county					99999
	013	000	2			Santa Cruz		023	5	0000	
				014	6	Nogales					49640
	014	0.00	•	999	9	Balance of county		005	_	0000	99999
	014	000	2	010	_	Yavapai		025	3	0000	E7200
				018 999	5 9	Prescott Balance of county					57380 99999
	015	311	1	シフフ	フ	Yuma		027	3	9360	22223
	010	711	_	023	4	Yuma		027	5	2300	85540
				999	9	Balance of county					99999
						-					

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			_		Effective With 1998 Data.				_	
					Anna Namas	Q L				Dlaga
Chty	P/MSA	M / INIM	CILLY	P/S			Chry	P/S	P/MSA	Place
0.47						05	000	4	0000	
04/			999	a			093	4	0000	99999
048	000	2					095	6	0000	2222
049	000	2	999	9	Montgomery		097	6	0000	
050	000				Nevada				0000	
			999	9						
052	000	2	005	6			103	5	0000	10720
			999							99999
053	000	2	999	9	Perry		105	6	0000	
054	000	2	0.017	_			107	5	0000	E 4 4 E O
										74450 99999
055	000	2		9			109	6	0000	22222
056	000	2	999	9	Poinsett		111	6	0000	
057	000	2	999	9	Polk		113	6	0000	
058	000	2	000	_			115	5	0000	61670
										61670 99999
059	000	2	999	9	Prairie		117	6	0000	
060	166	1			Pulaski		119	2	4400	
				5						34750
				3 4						41000 50450
			022	6						63800
			999	9	Balance of county					99999
			999	9						
062	000	2	$\cap \cap \circ$	6			123	5	0000	24430
			999	9						99999
063	166	1			Saline		125	4	4400	
										05290
064	000	2	999	9			127	6	0000	99999
	000			9	Searcy					
066	100	ī			Sebastian		131	4	2720	
										24550
067	000	2		9			122	6	0000	99999
		2	999	9			135	6		
069	000	2	999	9	Stone		137	6	0000	
070	000	2	000	_	Union_		139	5	0000	01000
										21070 99999
071	000	2					141	6	0000	22222
072	092	ī		-	Washington		143	3	2580	
			800	5	Fayetteville					23290
										66080 99999
073	000	2	シフフ	פ			145	4	0000	シフフフブ
0.5		_	021	6	Searcy			-		63020
0.7.4	0.00		999	9	Balance of county			_	0000	99999
				9						
075	000	4	シフフ	פ	ICII		143	U	0000	
	Cnty 047 048 049 050 0512 053 054 0556 057 058 060 061 062 063 064 0665 066 067 0689 070 071	Cnty P/MSA: 047 048 0000 050 0000 051 0000 052 0000 053 0000 054 0000 055 0000 057 0000 058 0000 059 0000 060 166 061 0000 062 0000 063 166 064 0000 065 0000 066 1000 067 0000 068 0000 069 0000 071 0000 071 0000 071 0000 072 092 073 0000 074 0000	Cnty P/MSA M/NM 047 048 0000 2 059 0000 2 051 0000 2 051 0000 2 055 0000 2 056 0000 2 057 0000 2 058 000 2 059 0000 2 060 166 1 061 000 2 062 000 2 063 166 1 064 000 2 065 000 2 066 100 1 067 000 2 068 000 2 069 000 2 070 000 2 071 000 2 072 092 1 073 000 2	Cnty P/MSA M/NM City 047 048 0000 2 999 050 0000 2 999 051 0000 2 999 052 0000 2 999 053 0000 2 999 054 0000 2 999 055 0000 2 999 056 0000 2 999 057 0000 2 999 058 000 2 999 059 000 2 999 059 000 2 999 060 166 1 012 014 016 022 999 061 0000 2 999 062 0000 2 999 063 166 1 012 014 016 022 999 064 0000 2 999 065 0000 2 999 066 100 1 010 999 067 0000 2 999 068 0000 2 999 068 0000 2 999 069 0000 2 999 060 0000 2 999 061 0000 2 999 062 0000 2 999 063 166 1 012 014 016 019 010 099 067 0000 2 999 068 0000 2 999 069 0000 2 999 071 0000 2 999 071 0000 2 999 072 092 1 008 0073 0000 2 021 008 0074 0000 2 999 074 0000 2 999 074 0000 2 999 0774 0000 2 999 0774 0000 2 999 0774 0000 2 999	047 048 000 02999 050 000 2999 051 000 2999 052 000 2005 0053 000 2999 054 000 2999 055 000 2027 6999 9056 000 2999 057 000 2999 057 000 2999 058 000 2999 057 000 2999 058 000 020 6999 059 059 060 166 1 012 014 3016 4022 6014 3016 4022 6014 3016 4022 6014 3016 4022 6014 3016 4022 6014 6012 6014 6012 6014 6012 6014 6012 6014 6014 6014 6015 6014 6016 6016 6017 6018 6018 6019 6019 6019 6019 6010	Arkansas	Compage PMSA M/NM City P/S Area Names Stark	Statistics Codes	Statistics Codes	Statistics Codes Codes

			VICUI	Deac	IDCIC	Effective With 1998 Data.	OIIICCA	beace	-6	1 4 9	C 0
St (Statis P/MSA				Area Names		t Cnty		Codes P/MSA	Place
05	001	201	1	002 003 025 073 090 103 135 173 179 199 204 242 287	46363345264449	California Alameda Alameda Albany Berkeley Dublin Fremont Hayward Livermore Newark Oakland Piedmont Pleasanton San Leandro Union City Balance of county	0	6 001	. 0	5775	00562 00674 06000 20018 20000 33000 41992 50916 56938 57792 68084 81204 9999
	002 003	000	2	999 999	9	Alpine Amador		003	5 5	0000	
	004	056	1	042 184 193 999	5 6 5 9	Butte Chico Oroville Paradise Balance of county		007		1620	13014 54386 55520 99999
	005 006 007	000 000 201	2 2 1	999 999 0052 00647 1058 1517 183 200 2013 2247 2495 299	99 43566656665545549	Calaveras Colusa Contra Costa Antioch Concord Danville El Cerrito Hercules Lafayette Martinez Moraga Town Orinda Pinole Pittsburg Pleasant Hill Richmond San Pablo San Ramon Walnut Creek Balance of county		009 011 013	6 3 1	0000 0000 5775	02252 16000 17988 21796 33308 39122 46114 49194 54232 57288 57456 60620 68294 68378 83346 9999
	008	000 239	2 1	999 270	9 6	Del Norte El Dorado South Lake Tahoe		015		0000 6920	73108
	010	104	1	999 047 091 216 238 264 999	9 426669	Balance of county Fresno Clovis Fresno Reedley Sanger Selma Balance of county		019		2840	99999 14218 27000 60242 67056 70882 99999
	011 012	000	2 2	999 009 083 999	9 6 5 9	Glenn Humboldt Arcata Eureka Balance of county		021 023	6 3 3	0000	02476 23042 99999
	013	000	2	027 032 076 999	6 6 5 9	Imperial Brawley Calexico El Centro Balance of county		025	5 3	0000	08058 09710 21782 99999
	014 015	000 020	2	999 016 066 219 296 999	39 36569	Inyo Kern Bakersfield Delano Ridgecrest Wasco Balance of county		025 029		0000 0680	03526 18394 60704 83542 99999
	016	000	2	053 100 134	6 5 6	Kings Corcoran Hanford Lemoore		031	. 3	0000	16224 31960 41152

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		Statis							FI	PS (Codes	
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	Ç	St	Cnty	P/S	P/MSA	Place
05						California	(06		_		
	016			999	9	Kings, con.			031	3	0000	99999
	017	000	2	999	9	Balance of county Lake			033	4	0000	99999
	01,	000	_	046	6	Clearlake			000	-	0000	13945
	010	000	2	999 999	9 9	Balance of county			035	_	0000	99999
	018 019	168	2 1	999	9	Lassen Los Angeles			035	5 0	0000 4480	
	010	100	-	001	6	Agoura Hills			037	J	1100	00394
				004	4	Alhambra						00884
				008 011	5 6	Arcadia Artesia						02462 02896
				015	5	Azusa						03386
				017	4	Baldwin Park						03666
				020 021	5 4	Bell Bellflower						04870 04982
				022	4 5 4 5 5	Bell Gardens						04996
				026	5	Beverly Hills						06308
				030 038	4	Burbank Carson						08954 11530
				041	4	Cerritos						12552
				045	5 6	Claremont						13756
				050 051		Commerce Compton						$14974 \\ 15044$
				057	4 5 6	Covina						16742
				058		Cudahy						17498
				059 068	5 4	Culver City Diamond Bar						17568 19192
				071	4	Downey						19766
				072 078	6	Duarte El Monte						19990 22230
				080	3 6	El Segundo						22412
				093		Gardena						28168
				096 097	5 3 5 6	Glendale Glendora						30000 30014
				101	6	Hawaiian Gardens						32506
				102	4	Hawthorne ,						32548
				106 112	6	Hermosa Beach Huntington Park						33364 36056
				115	4 3 6	Inglewood						36546
				117		La Canada Flintridge						39003
				123 125	4 5 4	Lakewood La Mirada						39892 40032
				126	4	Lancaster						40130
				128	5	La Puente						40340
				131 132	5 5 5 6	La Verne Lawndale						40830 40886
				138		Lomita						42468
				140 143	2 0	Long Beach Los Angeles						43000 44000
				146	4	Lynwood						44574
				148		Manhattan Beach						45400
				153 161	5 5 5	Maywood Monrovia						46492 48648
				163	4	Montebello						48816
				165	4	Monterey Park						48914
				176 188	4 4	Norwalk Palmdale						52526 55156
				192	6	Palos Verdes Estates						55380
				194	5	Paramount						55618
				195 198	3 4	Pasadena Pico Rivera						56000 56924
				205	3	Pomona						58072
				210 214	5 4	Rancho Palos Verdes						59514 60018
				223	4	Redondo Beach Rosemead						62896
				234	5 6	San Dimas						66070
				235 237	6	San Fernando San Gabriel						66140 67042
				245	5	San Marino						68224
				253	3	Santa Clarita						69088
				255 257	6 4	Santa Fe Springs Santa Monica						69154 70000
				265	6	Sierra Madre						71806
				268	6	South El Monte						72996

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		Statis				Area Names	St			odes p/mga	Place
05	JIICY	1 / 1 1011	1-1/ 141-1	CICY	1,0	California	06	CITCY	1,0	1 / 1/10/11	Tacc
05	019					Los Angeles, con.	00	037	0	4480	
				269	4	South Gate					73080
				271	6	South Pasadena					73220
				278 280	5	Temple City Torrance					78148 80000
				294	5	Walnut					83332
				298	4	West Covina					84200
				299 302	5 4	West Hollywood Whittier					84410 85292
				999	9	Balance of county					99999
	020	104	1		_	Madera		039	4	2840	
				147 999	5 9	Madera					45022 99999
	021	250	1	222	9	Balance of county Marin		041	3	7360	2222
			_	130	6	Larkspur			-		40438
				157 177	6	Mill Valley					47710
				227	5	Novato San Anselmo					52582 64434
				248	5	San Rafael					68364
	000	0.00	0	999	9	Balance of county		0.40	_	0000	99999
	022 023	000 000	2 2	999	9	Mariposa Mendocino		043 045	6 4	0000 0000	
	023	000	-	286	6	Ukiah		015	-	0000	81134
	004	170	-1	999	9	Balance of county		0.47	2	4040	99999
	024	179	1	013	6	Merced Atwater		047	3	4940	03162
				144	6	Los Banos					44028
				155	4	Merced					46898
	025	000	2	999 999	9 9	Balance of county Modoc		049	6	0000	99999
	026	000	2	999	9	Mono		051	6	0000	
	027	245	1	1 = 0	_	Monterey		053	2	7120	45550
				150 164	5 5 6	Marina Monterey					45778 48872
				187	6	Pacific Grove					54848
				226	3	Salinas					64224
				263 999	5 9	Seaside Palango of gounty					70742 99999
	028	290	1	222	9	Balance of county Napa		055	3	8720	2222
				171	4	Napa					50258
	029	000	2	999 999	9 9	Balance of county Nevada		057	4	0000	99999
	030	207	ĺ	222	,	Orange		059	Õ	5945	
				005	2	Anaheim					02000
				028 029	5 4	Brea Buena Park					08100 08786
				056	4	Costa Mesa					16532
				061	5	Cypress					17750
				063 089	5 4	Dana Point Fountain Valley					17946 25380
				092	3	Fullerton					28000
				094	3	Garden Grove					29000
				111 116	3 3	Huntington Beach Irvine					36000 36770
				119	6	Laguna Beach					39178
				120	5	Laguna Niguel					39248
				121 127	4 6	La Habra La Palma					39290 40256
				141	6	Los Alamitos					43224
				159	4	Mission Viejo					48256
				174 182	4 3	Newport Beach					51182 53980
				202		Orange Placentia					57526
				232	5 5 5	San Clemente					65084
				241 250	5 2	San Juan Capistrano Santa Ana					68028 69000
				262	5	Seal Beach					70686
				273	5	Stanton					73962
				284 300	4 4	Tustin					80854 84550
				304	4	Westminster Yorba Linda					86832
			_	999	9	Balance of county			_		99999
	031	239	1	014	6	Placer Auburn		061	3	6920	03204
				OTA	U	Vapatii					03204

Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names FIPS Codes St Cnty P/S P/MSA Place California Placer, con. Rocklin 061 3 Roseville Balance of county Plumas Riverside 5 Banning Cathedral City 4 Coachella 067 Corona Desert Hot Springs 36448 Hemet 122 Indio Lake Elsinore La Quinta Moreno Valley Norco Palm Desert Palm Springs 220 239 277 999 Perris Riverside San Jacinto 67112 78120 Temecula Balance of county Sacramento 067 0 Folsom Sacramento
Balance of county
San Benito 2.25 9 Hollister Balance of county San Bernardino 071 0 04030 13210 14890 Apple Valley Barstow Chino Colton 4 5 4 Fontana Grand Terrace Hesperia Highland Loma Linda Montclair 48788 Ontario Rancho Cucamonga Redlands 217 228 285 Rialto 3 6 4 5 San Bernardino Twentynine Palms Upland Victorville 81344 82590 291 Yucaipa Balance of county San Diego 073 0 Carlsbad Chula Vista Coronado El Cajon Encinitas 055 075 21712 22678 113 Escondido Imperial Beach $\bar{1}24$ La Mesa Lemon Grove National City Oceanside Poway San Diego San Marcos Õ Santee Solana Beach Balance of county
San Francisco, coext. with San Francisco 075
San Joaquin 999 039 274 Lodi

Vital	l Statistics Codes			S			FI	PS C	odes!	
St Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
05					California	06				
050					Stanislaus, con.	00	099	2	5170	
000			160	3	Modesto		0,7,7	_	51.0	48354
			178	6	Oakdale					52694
			283	5	Turlock					80812
0.51	210	-	999	9	Balance of county		1.01	4	0040	99999
051	310	1	305	г	Sutter		101	4	9340	86972
			999	5 9	Yuba City Balance of county					99999
052	000	2	222	9	Tehama		103	5	0000	2222
032	000	_	211	6	Red Bluff		103	9	0000	59892
			999	9	Balance of county					99999
053	000	2	999	9	Trinity		105	6	0000	
054	294	1		_	Tulare		107	2	8780	
			069	6	Dinuba					19318
			206 282	5 5	Porterville Tulare					58240 80644
			292	4	Visalia					82954
			999	9	Balance of county					99999
055	000	2	999	9	Tuolumne		109	5	0000	
056	291	1			Ventura		111	1	8735	
			033	4	Camarillo					10046
			085 166	6	Fillmore					24092
			185	5 3	Moorpark Oxnard					49138 54652
			207	6	Port Hueneme					58296
			230	$\overset{\circ}{4}$	San Buenaventura (Ventura)					65042
			258	5	Santa Paula					70042
			266	3	Simi Valley					72016
			279	3	Thousand Oaks					78582
057	307	1	999	9	Balance of county Yolo		113	3	9270	99999
057	307	Т	065	5	Davis		113	3	9270	18100
			301	5 5	West Sacramento					84816
			303	5	Woodland					86328
			999	9	Balance of county					99999
058	310	1	1.50	_	Yuba		115	4	9340	46170
			152 999	6	Marysville					46170
			999	9	Balance of county					99999

Vital Statistics Geographic Code Outline For The United States Page 14
Effective With 1998 Data.

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		Statis P/MSA				Area Names	St			odes P/MSA	Place
06	_			_		Colorado	08	_			
0	01	074	1	001	4	Adams Arvada, part		001	2	2080	03455
				002	3	Aurora, part					04000
				004 005	6 6	Brighton, part Broomfield, part					08675 09280
				800	6	Commerce City					16495
				023 026	5 4	Northglenn Thornton					54330 77290
				027	4	Westminster, part					83835
0	002	000	2	999 999	9 9	Balance of county Alamosa		003	6	0000	99999
	003	074	ī		-	Arapahoe		005	2	2080	
				002 011	3 5	Aurora, part Englewood					04000 24785
				019	5 9	Littleton, part					45255
0	04	000	2	999 999	9	Balance of county Archuleta		007	6	0000	99999
0	05	000	2 2 2	999	9	Baca		009	6	0000	
)06)07	000 038	1	999	9	Bent Boulder		011 013	6 3	0000 1125	
· ·	, , ,	000	_	003	4	Boulder		010	J		07850
				005 017	6 6	Broomfield, part Lafayette					09280 41835
				020	4	Longmont					45970
				021 999	6 9	Louisville Balance of county					46355 99999
	800	000	2	999	9	Chaffee		015	6	0000	
)09)10	000 000	2 2 2 2 2 2 2 1	999 999	9	Cheyenne Clear Creek		017 019	6 6	0000 0000	
)11)12	000	2	999 999	9	Conejos		021 023	6 6	0000	
)13	000	2	999	9 9	Costilla Crowley		025	6	0000	
)14)15	000 000	2	999 999	9 9	Custer Delta		027 029	6 6	0000	
0	16	074	1	009	2	Denver, coext. with Denver city		031	2	2080	20000
)17)18	000 074	2 1	999	9	Dolores Douglas		033 035	6 4	0000 2080	
0	,10	071	_	002	3 5	Aurora, part		033	-	2000	04000
				019 999	5 9	Littleton, part Balance of county					45255 99999
	19	000	2 2	999	9	Eagle		037	6	0000	
)20)21	000 060	1	999	9	Elbert El Paso		039 041	6 2	0000 1720	
				007	2	Colorado Springs					16000
				013 999	6 9	Fountain Balance of county					27865 99999
0	22	000	2	006	6	Fremont Canon City		043	5	0000	11810
				999	9	Balance of county					99999
)23)24	000 000	2	999 999	9	Garfield Gilpin		045 047	5 6	0000	
0	25	000	2	999		Grand		049	6	0000	
)26)27	000 000	2 2 2 2	999 999	9 9 9	Gunnison Hinsdale		051 053	6 6	0000 0000	
0	28	000	2	999	9	Huerfano		055	6	0000	
)29)30	000 074	2 1	999	9	Jackson Jefferson		057 059	6 2	0000 2080	
· ·	, , ,	0,1	_	001	4	Arvada, part		000	_	2000	03455
				005 014	6 6	Broomfield, part Golden					09280 30835
				018	3 4	Lakewood					43000
				027 028	5	Westminster, part Wheat Ridge					83835 84440
0	31	000	2	999 999	9 9	Balance of county Kiowa		061	6	0000	99999
0	32	000	2	999	9	Kit Carson		063	6	0000	
)33)34	000 000	2	999	9	Lake La Plata		065 067	6 5	0000	
0			_	010	6	Durango		557	3	0000	22035
Λ	35	096	1	999	9	Balance of county Larimer		069	3	2670	99999
O	_ 3		_	012	4	Fort Collins		500	-	_0.0	27425
				022 999	5 9	Loveland Balance of county					46465 99999
						4					

77:	+ - 1	Statis	tiaa	Code	c	Directive with 1990 bata.		E-1	רחם (Codes	
						Area Names	C+			P/MSA	Place
	JILCY	F/MSA	I'I / INI'I	СТСУ	F/3			CITCY	F/S	F/MSA	Flace
06						Colorado	8 0				
	036	000	2	999	9	Las Animas		071	6	0000	
	037	000	2	999	9	Lincoln		073	6	0000	
	038	000	2			Logan		075	6	0000	
				025	6	Šterling					73935
				999	9	Balance of county					99999
	039	000	2			Mesa		077	4	0000	
				015	5	Grand Junction					31660
				999	9	Balance of county					99999
	040	000	2	999	9	Mineral		079	6	0000	
	041	000	2	999	9	Moffat		081	6	0000	
	042	000	2 2 2	999	9	Montezuma		083	6	0000	
	043	000	2	999	9	Montrose		085	6	0000	
	044	000	2	999	9	Morgan		087	6	0000	
	045	000	2	999	9	Otero		089	6	0000	
	046	000	2	999	9	Ouray		091	6	0000	
	047	000	2	999	9	Park		093	6	0000	
	048	000	2	999	9	Phillips		095	6	0000	
	049	000	2	999	9	Pitkin		097	6	0000	
	050	000	2	999	9	Prowers		099	6	0000	
	051	223	1			Pueblo		101	3	6560	
				024	4	Pueblo					62000
				999	9	Balance of county					99999
	052	000	2 2	999	9	Rio Blanco		103	6	0000	
	053	000	2	999	9	Rio Grande		105	6	0000	
	054	000	2	999	9	Routt		107	6	0000	
	055	000	2	999	9	Saguache		109	6	0000	
	056	000	2	999	9	San Juan		111	6	0000	
	057	000	2 2 2 2	999	9	San Miquel		113	6	0000	
	058	000	2	999	9	Sedgwick		115	6	0000	
	059	000		999	9	Summit		117	6	0000	
	060	000	2	999	9	Teller		119	6	0000	
	061	000	2	999	9	Washington		121	6	0000	
	062	114	1			Weld		123	3	3060	
				004	6	Brighton, part					08675
				005	6	Broomfield, part					09280
				016	4	Greeley					32155
				999	9	Balance of county					99999
	063	000	2	999	9	Yuma		125	6	0000	

		~		~ 1		Effective With 1998 Data.			_~ ~		
St C	tal nty	Statis P/MSA	tics M/NM	Code	s P/S	Area Names				odes P/MSA	Place
	001	194	1	002 004 007 008 014 016 023 033 035 036 038 044 999	6346444535569	Connecticut Fairfield Bethel town Bridgeport Danbury Darien town Fairfield town Greenwich town Norwalk Shelton Stamford Stratford town Trumbull town Westport town Balance of county Hartford	09	001	1	5483 3283	04720 08000 18430 18920 26620 33620 55990 68100 73000 74260 77270 83500 99999
	002	122	1	005 011 013 015 019 024 026 0312 0425 0445 0447 999	4455344566545659	Bristol East Hartford town Enfield town Enfield town Glastonbury town Hartford Manchester town New Britain Newington town Plainville town Rocky Hill town Southington town West Hartford town Wethersfield town Windsor Locks town Windsor town Balance of county				3203	08420 22630 25990 31240 37000 44700 50370 7052210 60120 65370 705590 84900 87070 87070 87070 879999
	003	000	2	037 999	5 9	Litchfield Torrington Balance of county		005	3	0000	76500 99999
	004	122	1	021	5	Middlesex Middletown Balance of county		007	3	3283	47290 99999
	005	194	1	001 003 006 009 012 017 020 023 025 028 040 043 999	6556654455365349	New Haven Ansonia Branford town Cheshire town Derby Derby East Haven town Hamden town Meriden Milford Naugatuck borough New Haven North Haven town Wallingford town Waterbury West Haven Balance of county		009	1	5483	01150 07310 14160 19480 22980 35650 46450 47500 49880 52000 54870 78740 80000 82800 99999
	006	195	1	027 030 999	5 5 9	New London New London Norwich Balance of county		011	2	5523	52280 56200 99999
	007	122	1	039	5	Tolland Vernon town Balance of county		013	3	3283	78250 99999
	800	000	2	999	9	Windham		015	3	0000	

		7	Vital	Stat	isti	cs Geographic Code Effective With	Outline For	The	United	States	3	Pag	e 17
		Statis P/MSA				Area Names	1990 Data.		St			Codes P/MSA	Place
08	001	078	1	001 999	5	Delaware Kent Dover			10	001	3	2190	21200 99999
	002	304	1	002 003	5 4	Balance of cou New Castle Newark Wilmington	-			003	2	9160	50670 77580
	003	000	2	999 999	9 9	Balance of cou Sussex	лису			005	3	0000	99999

Vital Statistics Geographic Code Outline For The United States

Effective With 1998 Data.

Vital Statistics Codes
St Cnty P/MSA M/NM City P/S Area Names

St Cnty P/S Area Names

O9 001 296 1 001 1 District of Columbia

11 001 1

FIPS Codes St Cnty P/S P/MSA Place 11 001 1 8840

Page 18

033 2

Vital Statistics Geographic Code Outline For The United States Par Effective With 1998 Data. Istics Codes FIPS Codes Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names St Cnty P/S P/MSA Place Florida Palm Beach, con. 099 1 Jupiter Lake Worth 5 Lake Worth
6 North Palm Beach
6 Palm Beach Gardens
5 Riviera Beach
6 Royal Palm Beach
4 West Palm Beach
9 Balance of county
Pasco
6 New Port Richey
9 Balance of county
Pinellas New Port Richt Balance of cot Pinellas
Clearwater
Dunedin
Gulfport
Largo
Pinellas Park
Safety Harbor
St. Petersburg
Tarpon Springs
Balance of
Polk 101 2 052 279 103 1 Tarpon Springs Balance of county Bartow
Haines City
Lakeland
Winter 053 154 105 2 Winter Haven Balance of county 9 Putnam 9 Palatka Balance of county St. Johns
St. Augustine
Balance of county
St. Lucie
Fort Pierce
Port St. Lucie
Balance of county 9 Santa Rosa Sarasota
North Port
Sarasota
Venice
Balance of county 4 5 64175 73900 seminole
Altamonte Springs
Casselberry
Longwood
Oviedo
Sanford
Winter Springs 053 076 097 53575 63650 Winter Springs Balance of county Sumter Suwannee 123 125 Suwaimice Taylor Inion 063 Volusia Daytona Beach DeLand Daytona Beach
DeLand
Edgewater
Holly Hill
New Smyrna Beach
Ormond Beach
Port Orange
South Daytona
Balance of county 026 038 19825 087 Port Orange South Daytona Balance of county 67325 Wakulla

Washington

		G		a 1		Effective With 1998 Data.					
		Statis P/MSA				Area Names Georgia	St 13			odes P/MSA	Place
тт	001	000	2	999	9 9	Appling	13	001	6	0000	
	002 003	000 000	2 2	999 999	9	Atkinson Bacon		003 005	6 6	0000 0000	
	004	000	2	999	9	Baker		007	6	0000	
	005	000	2	029	6	Baldwin Milledgeville		009	5	0000	51492
				999	9	Balance of county					99999
	006 007	000 016	2 1	999 999	9 9	Banks Barrow		011 013	6 5	0000 0520	
	007	016	i	999	-	Bartow		015	4	0520	
				010 999	6 9	Cartersville					13688 99999
	009	000	2	999	9	Balance of county Ben Hill		017	6	0000	99999
	010 011	000	2 1	999	9	Berrien		019 021	6 3	0000	
	OII	172	Т	027	3	Bibb Macon, part		021	3	4680	49000
	010	0.00	0	999 999	9	Balance of county		000	_	0000	99999
	012 013	000 000	2 2	999	9 9 9	Bleckley Brantley		023 025	6 6	0000 0000	
	014	000	2	999	9 9	Brooks		027	6	0000	
	015 016	258 000	1 2	999	9	Bryan Bulloch		029 031	6 5	7520 0000	
				038	6	Statesboro					73256
	017	000	2	999 999	9 9	Balance of county Burke		033	6	0000	99999
	018	000	2	999	9	Butts		035	6	0000	
	019 020	000 000	2 2	999 999	9 9 9	Calhoun Camden		037 039	6 5	0000 0000	
	021	000	2	999	9	Candler		043	6	0000	
	022	016	1	009	6	Carroll Carrollton		045	4	0520	13492
				999	9	Balance of county			_		99999
	023 024	053 000	1 2	999 999	9 9	Catoosa Charlton		047 049	5 6	1560 0000	
	025	258	ī		-	Chatham		051	3	7520	
				035 999	3 9	Savannah Balance of county					69000 99999
	026	063	1	999	9	Chattahoochee		053	6	1800	
	027 028	000 016	2 1	999 999	9	Chattooga Cherokee		055 057	6 4	0000 0520	
	029	015	i		-	Clarke		059	4	0500	
				004 999	5 9	Athens Balance of county					03432 99999
	030	000	2	999	9	Clay		061	6	0000	
	031	016	1	011	6	Clayton College Park, part		063	3	0520	17776
				021	6	Forest Park					30536
	032	000	2	999 999	9 9	Balance of county Clinch		065	6	0000	99999
	033	016	ī			Cobb		067	2	0520	
				028 036	5 5	Marietta Smyrna					49756 71492
				999	9	Balance of county					99999
	034	000	2	017	6	Coffee Douglas		069	5	0000	23872
				999	9	Balance of county					99999
	035	000	2	030	6	Colquitt Moultrie		071	5	0000	53060
				999	9	Balance of county					99999
	036 037	018 000	1 2	999 999	9 9	Columbia Cook		073 075	4 6	0600 0000	
	038	016	ī			Coweta		077	4	0520	
				031 999	6 9	Newnan Balance of county					55020 99999
	039	000	2	999	9	Crawford		079	6	0000	
	040	000	2	013	6	Crisp Cordele		081	6	0000	19616
	_			999	9	Balance of county			_		99999
	041 042	053 000	1 2	999 999	9 9	Dade Dawson		083 085	6 6	1560 0000	
	042	000	2			Decatur		087	5	0000	
				007 999	6 9	Bainbridge Balance of county					04896 99999
	044	016	1			De Kalb		089	1	0520	
				005	2	Atlanta, part					04000

Dublin Balance of county

177 6

						Effective with 1998 Data.					
Vital Statistics								FIPS Codes			
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
11	120	0.00	2	000	0	Georgia	13		_	0000	
	139 140	000 000	2 2	999 999	9 9	Towns Treutlen		281 283	6 6	0000	
	$140 \\ 141$	000	2			Troup		285	4	0000	
				025	5 9	La Grange					44340
	142	000	2	999 999	9	Balance of county		287	6	0000	99999
	143	172	2	999	9	Turner		289	6	4680	
	$143 \\ 144$	000	7	999	9	Twiggs Union		291	6 6	0000	
	145	000	2	999	9	Upson		293	5	0000	
	146	053	1	999	9	Walker		295	4	1560	
	147	016	ī	999	9	Walton		297	5	0520	
	148	000	2	,,,		Ware		299	5	0000	
		000	_	044	6	Waycross, part			J	0000	80956
				999	9	Balance of county					99999
	149	000	2	999	9	Warren		301	6	0000	
	150	000	2 2	999	9	Washington		303	6	0000	
	151	000	2	999	9	Wayne		305	6	0000	
	152	000	2	999	9	Webster		307	6	0000	
	153	000	2	999	9	Wheeler		309	6	0000	
	154	000	2	999	9	White		311	6	0000	
	155	000	2		_	Whitfield		313	4	0000	
				015	6	Dalton					21380
	156	0.00	_	999	9	Balance of county		015	_		99999
	156	000	2	999	9	Wilcox		315	6	0000	
	157	000	۷	999	9	Wilkes		317	6	0000	
	158	000	2	999	9	Wilkinson		319	6	0000	
	159	000	4	999	9	Worth		321	6	0000	

Vital	Statistics	Geographic	Code	Outline	For	The	United	States	Page	26	
		Effort in	Tit i + h	1000 Dat	- ~				_		

Ctatio	atica	Code	=	Effective with 1996 Data.	FIDS Codes					
				Area Names	St				Place	
000	2	002	5	Hawaii Hawaii Hilo	15	001	3	0000	14650	
125	1	001 003 005 006 007 008 009 010	62555566	Honolulu Ewa Beach Honolulu Kailua Kaneohe Mililani Town Pearl City Schofield Barracks Wahiawa		003	1	3320	99999 07450 17000 23150 28250 51050 62600 69050 72650 79700	
000 000 000	2 2 2	999 999 999 004 011 999	999 669	Balance of county Kalawao Kauai Maui Kahului Wailuku Balance of county		005 007 009	6 4 3	0000 0000 0000	22700 77450 99999	
	P/MSA 000 125	P/MSA M/NM 000 2 125 1	P/MSA M/NM City 000 2	000 2 999 9 125 1 001 6 003 2 005 5 006 5 007 5 008 5 009 6 010 6 012 5 999 9 000 2 999 9 000 2 999 9 000 2 999 9	Statistics Codes	Statistics Codes P/MSA M/NM City P/S Area Names Statistics Area Names Statistics Statistics Statistics City P/S Area Names Statistics Statistics	Statistics Codes FI	Statistics Codes FIPS FIPS Codes FIPS FI	Statistics Codes FIPS FIPS	

Vital Statistics Geographic Code Outline For The United States
Effective With 1998 Data.

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	Statist: P/MSA M				Area Names	St		PS C P/S	P/MSA	Place
14 001	000	2	120	_	Illinois Adams	17	001	4	0000	60268
002 003 004	000	2 2 1	138 999 999	5 9 9	Quincy Balance of county Alexander Bond Boone		003 005 007	6 6 5	0000 0000 6880	62367 99999
005 006 007	000	2 2 2	999	6 9 9 9	Belvidere Balance of county Brown Bureau Calhoun		009 011 013	6 5 6	0000	05092 99999
008 009 010	000	2 2 1	999 999	9 9 4 6	Carroll Cass Champaign Champaign		015 017 019	6 6 3	0000 0000 1400	12385
011	000	2	139 160 999	6 5 9	Rantoul village Urbana Balance of county Christian Taylorville		021	5	0000	62783 77005 99999 74574
012 013 014	000	2 2 1	999 999 999	9 9 9	Balance of county Clark Clay Clinton		023 025 027	6 6 5	0000 0000 7040	99999
015	000	2	031 999 033 105	6 9 6	Centralia, part Balance of county Coles Charleston Mattoon		029	4	0000	12164 99999 12567 47553
016	055	1	999 00057 0110 0113 00121 0012	69 646665666555555564666646456466655555666556665666	Mattoon Balance of county Cook Alsip village Arlington Heights village Bartlett village, part Bellwood village Bensenville village, part Berwyn Blue Island Bridgeview village Buffalo Grove village, part Burbank Calumet City Chicago, part Chicago Heights Chicago Ridge village Cicero Country Club Hills Crestwood village Deerfield village, part Des Plaines Dolton village Elgin, part Elk Grove Village village, part Elk Grove Village village Evanston Evergreen Park village Forest Park village Franklin Park village Glenview village Harvey Hazel Crest village, part Hoffman Estates village, part Hoffman Estates village, part Hoffman Estates village Justice village La Grange Park village La Grange Village La Grange Village Lansing village Markham Matteson village		031	0	1600	499 01543589 0454375599 0154375487345672767276727672767276727672767276727672

Vital Statistics Geographic Code Outline For The United States Pa Effective With 1998 Data. Istics Codes FIPS Codes Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names St Cnty P/S P/MSA Place Illinois Du Page, con.
Wood Dale
Woodridge village, part
Balance of county 043 1 Balance Edgar
Edwards
Effingham
Effingham
Balance of county 5 Fayette
Ford
Franklin
Fulton 027 028 055 Canton Galı. Greene Grundy Morr Bala Balance of county Gallatin Greene Morris Hamii Hancock Hardin Henderson Henry Kewanee Balance of county Troquois Troquois Balance of county 035 Carbondale Balance of county 9 Jasper Jefferson Balance of county Jersey Jo Daviess Johnson Kane Mount Vernon
Balance of county Kane
Algonquin village, part Algonquin village, part
Aurora, part
Bartlett village, part
Batavia, part
Carpentersville village
Elgin, part
Geneva
St. Charles, part
Balance of county
Kankakee
Bourbonnais village
Bradley village 66703 091 4 046 144 Bradley village Kankakee Balance of county Kendall Kenaca Knox Galesburg Balance of county Lake
Buffalo Grove village, part
Deerfield village, part
Gurnee village 049 055 097 1 073 079 Lake Forest
Lake Zurich village
Libertyville village
Mundelein village
North Chicago
Round Lake Beach village Vernon Hills village 171 179 81087 Waukegan Wheeling village, part Zion Balance of county 050 000 La Salle 099 3 128 6

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		Statis				Awaa Namag	C+			odes	Dlago
	LIILY	P/MSA	IvI / IVIvI	CILY	P/S	Area Names		CIICY	P/S	P/MSA	Place
14	000					Illinois	17	1.60	_	E040	
	082			038	6	St. Clair, con. Collinsville, part		163	2	7040	15599
				054	6 5	East St. Louis					22255
				063	6	Fairview Heights					25141
				126	ő	O'Fallon					55249
				999	9	Balance of county					99999
	083	000	2	999	9	Saline		165	5	0000	
	084	269	1	1 - 1	2	Sangamon		167	3	7880	70000
				154 999	3 9	Springfield Balance of county					72000 99999
	085	000	2	999	9	Schuyler		169	6	0000	22222
	086	000	2 2	999	9	Scott		171	6	0000	
	087	000	2	999	9	Shelby		173	6	0000	
	088	000	2 2 2	999	9	Stark		175	6	0000	
	089	000	2	0.66	_	Stephenson		177	5	0000	05004
				066 999	5 9	Freeport Balance of county					27884 99999
	090	213	1	999	9	Tazewell		179	3	6120	99999
	000	213	_	053	6	East Peoria		110	5	0120	22164
				112	6	Morton village					50621
				134	5	Pekin, part					58447
				164	6	Washington					79033
	091	000	2	999 999	9 9	Balance of county Union		181	6	0000	99999
	092	000	2	222	9	Vermilion		183	4	0000	
	0,2	000	_	043	5	Danville		103	-	0000	18563
				999	9	Balance of county					99999
	093	000	2	999	9	Wabash		185	6	0000	
	094	000	2	999	9 9	Warren		187	6	0000	
	095 096	000 000	2	999 999	9	Washington		189 191	6 6	0000 0000	
	097	000	2	999	9	Wayne White		193	6	0000	
	098	000	2	,,,	_	Whiteside		195	$\overset{\circ}{4}$	0000	
				155	6	Sterling					72546
	000	0.5.5	-	999	9	Balance of county		100		1.000	99999
	099	055	1	017	г	Will		197	2	1600	07122
				017 040	5 6	Bolingbrook village, part Crest Hill					07133 17458
				084	4	Joliet					38570
				116	$\overline{4}$	Naperville, part					51622
				132	6	Park Forest village, part					57732
				146	6	Romeoville village					65442
				159 175	5 5	Tinley Park village, part					75484 83245
				999	9	Woodridge village, part Balance of county					99999
	100	000	2)	Williamson		199	4	0000	
				077	6	Herrin					34358
				102	6	Marion					46916
	101	027	1	999	9	Balance of county		201	2	6000	99999
	101	237	1	098	6	Winnebago Loves Park		201	2	6880	45031
				100	6	Machesney Park village					45726
				143	3	Rockford					65000
				999	9	Balance of county			_		99999
	102	213	1	999	9	Woodford		203	5	6120	

Henry
New Castle
Balance of county

Balance of county

Howard

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	al Stat				7 27	C +			Codes	D1
	ty P/MS	A M/NM	City	P/S	Area Names		Cnty	P/S	P/MSA	Place
15		_		_	Indiana	18		_		
	63 000	2	999	9	Pike		125	6	0000	
0	64 108	1	0 - 1	_	Porter		127	3	2960	C1000
			051 059	5 6	Portage					61092 78326
			999	9	Valparaiso Balance of county					99999
0.0	65 089	1	999	9	Posey		129	5	2440	
	66 000	2	999	9	Pulaski		131	6	0000	
Ō	67 000	2	999	9	Putnam		133	5	0000	
	68 000	2	999	9	Randolph		135	5	0000	
	69 000	2	999	9	Ripley		137	6	0000	
	70 000		999	9	Rush		139	6	0000	
U	71 267	1	040	_	St. Joseph		141	3	7800	40020
			042 056	5 3	Mishawaka South Bend					49932 71000
			999	9	Balance of county					99999
0,	72 169	1	999	9	Scott		143	6	4520	
	73 130	ī		-	Shelby		145	5	3480	
			055	6	Shelbyville					69318
		_	999	9	Balance of county			_		99999
	74 000	2	999	9	Spencer		147	6	0000	
	75 000	2 2	999 999	9 9	Starke		149 151	6 5	0000	
	76 000 77 000	2	999	9	Steuben Sullivan		151	6	0000 0000	
	78 000	2 2	999	9	Switzerland		155	6	0000	
	79 152	ī		-	Tippecanoe		157	3	3920	
			031	5	Lafayette					40788
			064	5	West Lafayette					82862
0		-	999	9	Balance of county		1.50	_	2050	99999
	80 149 81 000	1 2	999 999	9 9	Tipton		159 161	6 6	3850 0000	
	82 089	1	999	9	Union Vanderburgh		163	3	2440	
01	000	_	014	3	Evansville		103	5	2440	22000
			999	9	Balance of county					99999
0	83 280	1	999	9	Vermillion		165	6	8320	
0	84 280	1			Vigo		167	3	8320	
			058	4	Terre Haute					75428
0	0.00	0	999	9	Balance of county		1.00	_	0000	99999
03	85 000	2	061	6	Wabash		169	5	0000	79370
			999	9	Wabash Balance of county					99999
0:	86 000	2	999	9	Warren		171	6	0000	22222
	87 089	ī	999	9	Warrick		173	5	2440	
0	88 000	2	999	9	Washington		175	6	0000	
0	89 000	2			Wayne		177	4	0000	
			052	5	Richmond					64260
0.	90 102	1	999 999	9	Balance of county Wells		179	_	2760	99999
	90 102 $91 000$	1 2	999	9 9	Wells White		181	5 6	2760 0000	
	92 102	1	999	9	Whitley		183	5	2760	
0.		_	,,,	_			100	_	2,00	

Page 36

		,	Vital	Stat	istic	Effective With 1998 Data.	United	States	3	Pag	e 3/
		Stati: P/MSA			P/S	Area Names	St 19	Cnty		Codes P/MSA	Place
Τρ	053 054 055 056	000 000 000 000	2 2 2 2	999 999 999	9 9 9	Iowa Jones Keokuk Kossuth Lee	13	105 107 109 111	6 6 5	0000 0000 0000 0000	
	057	047	1	015 018 999	6 6 9	Fort Madison Keokuk Balance of county Linn Cedar Rapids		113	3	1360	28605 40845 99999 12000
	058 059 060	000 000 000	2 2 2 2	019 999 999 999	69999	Marion Balance of county Louisa Lucas Lyon		115 117 119	6 6	0000 0000 0000	49485 99999
	061 062 063	000	2 2	999 024 999 999	9 6 9	Madison Mahaska Oskaloosa Balance of county Marion		121 123 125	6 6 5	0000	59925 99999
	064	000	2	020 999 999	5 9 9	Marshall Marshalltown Balance of county Mills		127	5	0000	49755 99999
	066 067 068 069 070	000 000 000 000 000	2 2 2 2 2 2	999 999 999 999	9999	Mitchell Monona Monroe Montgomery Muscatine		131 133 135 137 139	66665	0000 0000 0000 0000	55110
	071 072 073 074 075 076 077	000 000 000 000 000 000 075	2 2 2 2 2 2	022 999 999 999 999 999	09999999	Muscatine Balance of county O'Brien Osceola Page Palo Alto Plymouth Pocahontas Polk		141 143 145 147 149 151 153	6666662	0000 0000 0000 0000 0000 0000 2120	99999
	078	206	1	002 012 028 030 999	6 3 6 5 9	Ankeny Des Moines Urbandale West Des Moines, part Balance of county Pottawattamie		155	4	5920	02305 21000 79950 83910 99999
	079 080	000	2 2	010 999 999 999	4 9 9	Council Bluffs Balance of county Poweshiek Ringgold		157 159	6	0000	16860 99999
	081 082	000 069	2	999 003 011 999	9 5 4 9	Sac Scott Bettendorf Davenport Balance of county		161 163	6 3	0000 1960	06355 19000 99999
	083 084 085	000 000 000	2 2 2	999 999 001	9 9 5 9	Shelby Sioux Story Ames		165 167 169	6 5 4	0000 0000 0000	01855
	086 087 088 089 090	000 000 000 000 000	2 2 2 2 2	999 999 999 999 999	99999 6	Balance of county Tama Taylor Union Van Buren Wapello Ottumwa		171 173 175 177 179	6 6 6 5	0000 0000 0000 0000	99999 60465
	091	075	1	999 016 999	9 6 9	Balance of county Warren Indianola Balance of county		181	5	2120	99999 38280 99999
	092 093 094	000 000 000	2 2 2	999 999 014	9 9 5	Washington Wayne Webster Fort Dodge		183 185 187	6 6 5	0000 0000 0000	28515
	095 096	000	2 2	999 999 999	9 9 9	Balance of county Winnebago Winneshiek		189 191	6 6	0000	99999

		,	Vital	Stat	istic	cs Geographic Co Effective Wi	ode Outline For	The	United	States	5	Pag	e 38
		Stati	stics	Codes	S	Area Names	ien 1990 Baca.			FI	PS (Codes P/MSA	Place
16	097	265	1	026	4	Iowa Woodbury Sioux City			19	193	4	7720	73335
	098 099	000	2 2	999 999 999	9	Balance of Worth Wright	county			195 197	6 6	0000	99999

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		Statis					~.			Codes	
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
17						Kansas	20				
Τ,	089					Shawnee, con.	20	177	3	8440	
	009			999	9	Balance of county		1//	5	0110	99999
	090	000	2	999	9	Sheridan		179	6	0000	22222
			4								
	091	000	2	999	9	Sherman		181	6	0000	
	092	000	2	999	9	Smith		183	6	0000	
	093	000	2	999	9	Stafford		185	6	0000	
	094	000	2	999	9	Stanton		187	6	0000	
	095	000	2	999	9	Stevens		189	6	0000	
	096	000	2	999	9	Sumner		191	5	0000	
	097	000	2	999	9	Thomas		193	6	0000	
	098	000	2	999	9	Trego		195	6	0000	
	099	000	2	999	9	Wabaunsee		197	6	0000	
	100	000	2	999	9	Wallace		199	6	0000	
	101	000	2	999	9	Washington		201	6	0000	
	102	000	2	999	9	Wichita		203	6	0000	
	103	000	2	999	9	Wilson		205	6	0000	
			4		9						
	104	000	4	999	9	Woodson		207	6	0000	
	105	145	Τ	014	~	Wyandotte		209	3	3760	26000
				014	3	Kansas City					36000
				999	9	Balance of county					99999

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		Statis P/MSA				Area Names	St			Codes P/MSA	Place
18	-			1		Kentucky	21	2			
	102 103 104	000 000 000	2	999 999 999	9 9 9	Rockcastle Rowan Russell		203 205 207	6 6	0000 0000 0000	
	104	163	1	999	9	Scott		207	6	4280	
				010 999	6 9	Georgetown Balance of county					30700 99999
	106 107	000 000	2 2	999 999	9 9	Shelby Simpson		211 213	6 6	0000	
	108 109	000 000	2	999 999	9 9	Spencer Taylor		215 217	6 6	0000	
	110	000	2	999	9	Todd		219	6	0000	
	111 112	000 000	2	999 999	9 9	Trigg Trimble		221 223	6 6	0000 0000	
	113	000	2	999	9	Union		225	6	0000	
	114	000	2	002 999	5 9	Warren Bowling Green Balance of county		227	4	0000	08902 99999
	115	000	2	999	9	Washington		229	6	0000	
	116 117	000 000	2	999 999	9 9	Wayne Webster		231 233	6 6	0000 0000	
	118	000	2	999	9	Whitley		235	5	0000	
	119 120	000 163	2	999 999	9 9	Wolfe Woodford		237 239	6 6	0000 4280	

FIPS Codes St Cnty P/S P/MSA Place Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names Louisiana Rapides Alexandria 040 006 079 3 Pineville Balance of parish Red River Richland Sabine St. Bernard St. Charles St. Helena 5560 047 St. Herena
St. James
St. John the Baptist
St. Landry
Eunice, part
Opelousas
Balance of parish 5 4 196 095 5560 Balance of parish
St. Martin
St. Mary
Morgan City
Balance of parish
St. Tammany
Slidell
Balance of parish 103 3 9 053 000 Tangipahoa 105 4 Hammond Balance of parish 055 Tensas 4 Terrebonne Houma Balance of parish Union Vermilion Abbeville Balance of parish Vernon Washington 117 059 Bogalusa Balance of parish Webster Minden Balance of parish West Baton Rouge West Carroll West Feliciana Winn

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Vital	Statis	stics	Code	S			FI	PS (Codes	
St Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
20					Maine	23				
001	162	1			Androscoggin		001	3	4243	
			001	6	Auburn					02060
			005	5	Lewiston					38740
		_	999	9	Balance of county					99999
002	000	2	000	_	Aroostook		003	4	0000	60005
			007	6	Presque Isle					60825
000	010	1	999	9	Balance of county		005	3	C 1 0 2	99999
003	219	1	006	4	Cumberland Portland		005	3	6403	60545
			009	6	South Portland					71990
			011	6	Westbrook					82105
			999	9	Balance of county					99999
004	000	2	999	9	Franklin		007	5	0000	
005		2	999	9	Hancock		009	5	0000	
006	000	2			Kennebec		011	3	0000	
			002	6	Augusta					02100
			010	6	Waterville					80740
0.00	0.00	0	999	9	Balance of county		010	_	0000	99999
007		2	999	9	Knox		013	5	0000	
008 009		2	999 999	9 9	Lincoln Oxford		015 017	5 4	0000 0000	
010		1	999	9	Penobscot		017	3	0733	
010	022	_	003	5	Bangor		019	5	0733	02795
			999	9	Balance of county					99999
011	000	2	999	9	Piscataquis		021	6	0000	
012	000	2	999	9	Sagadahoc		023	5	0000	
013	000	2	999	9	Somerset		025	5	0000	
014	000	2	999	9	Waldo		027	5	0000	
015	000	2	999	9	Washington		029	5	0000	
016	000	2	004	_	York		031	3	0000	0.4060
			004	6	Biddeford					04860
			008 999	6 9	Saco Balance of county					64675 99999
			ラフフ	9	Dalaiice Of Couilly					フフフフソ

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~. V	'ital	Statis	tics	Code	S_,_		~.		PS_C		
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
21						Maryland	24				
	001	066	1			Allegany		001	4	1900	
	001	000	_	007	6	Cumberland		001	-	2500	21325
				999	9	Balance of county					99999
	002	021	1			Anne Arundel		003	2	0720	
	002	021	_	002	5	Annapolis		000	_	0,20	01600
				999	9	Balance of county					99999
	003	021	1	999	9	Baltimore		005	1	0720	
	004	021	ī	003	ĺ	Baltimore city		510	1	0720	04000
	005	296	1	999	9	Calvert		009	4	8840	
	006	000	2	999	9	Caroline		011	5	0000	
	007	021	1			Carroll		013	3	0720	
				018	6	Westminster					83100
				999	9	Balance of county					99999
	008	304	1	999	9	Cecil		015	4	9160	
	009	296	1	999	9	Charles		017	3	8840	
	010	000	2			Dorchester		019	5	0000	
				005	6	Cambridge					12400
				999	9	Balance of county					99999
	011	296	1			Frederick		021	3	8840	
				800	5	Frederick					30325
				999	9	Balance of county					99999
	012	000	2	999	9	Garrett		023	5	0000	
	013	021	1		_	Harford		025	3	0720	
				001	6	Aberdeen					00125
			_	999	9	Balance of county			_		99999
	014	021	1	999	9	Howard		027	3	0720	
	015	000	2	999	9	Kent		029	6	0000	
	016	296	1	000	_	Montgomery		031	1	8840	21175
				009	5 5	Gaithersburg					31175
				015 017	6	Rockville					67675 76650
				999	9	Takoma Park, part Balance of county					99999
	017	296	1	999	9	Prince George's		033	1	8840	99999
	017	290	Т	004	5	Bowie		033	Т	0040	08775
				004	5 6	College Park					18750
				010	6	Greenbelt					34775
				012	6	Hyattsville					41250
				013	6	Laurel					45900
				014	6	New Carrollton					55400
				017	6	Takoma Park, part					76650
				999		Balance of county					99999
	018	021	1	999	9 9 9	Oueen Anne's		035	5	0720	
	019	000	2	999	9	Št. Mary's		037	4	0000	
	020	000	2 2	999	9	Somerset		039	6	0000	
	021	000	2	999	9	Talbot		041	5	0000	
	022	119	ī			Washington		043	3	3180	
				011	5	Hagerstown					36075
				999	9	Baľance of county					99999
	023	000	2			Wicomico		045	4	0000	
				016	6	Salisbury					69925
			_	999	9	Balance of county			_		99999
	024	000	2	999	9	Worcester		047	5	0000	

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St C		Statis P/MSA				Area Names				lodes P/MSA	Place
22	001	023	1	008	5	Massachusetts Barnstable Barnstable town Falmouth town	25	001	3	0743	03635 23105
	002	218	1	999 062 067	9 6 5	Balance of county Berkshire North Adams Pittsfield		003	3	6323	99999 46225 53960
	003	037	1	999 007	9 5	Balance of county Bristol Attleboro		005	1	1123	99999 02690
	004 005	000 037	2 1	023 029 030 059 064 077 089 99	564456599	Dartmouth town Fairhaven town Fall River New Bedford North Attleborough town Somerset town Taunton Balance of county Dukes Essex		007 009	6 1	0000 1123	16425 22130 23000 45000 46575 62430 69170 99999
				003 0010 0102 0335 0341 0047 0054 0075 0075 0075 0075 0075 0075	6556544466565555690	Amesbury town Andover town Beverly Danvers town Gloucester Haverhill Lawrence Lynn Lynnfield town Marblehead town Methuen town Newburyport Peabody Salem Saugus town Swampscott town Balance of county					01185 01465 015250 26150 29405 334550 37490 37560 40675 452490 59105 608645 9999
	006	000 271	2	999 002 027 038 044 079 091 999	9 546563559	Franklin Hampden Agawam town Chicopee East Longmeadow town Holyoke Longmeadow town Springfield Westfield West Springfield town Balance of county		011	4 2	0000	00800 13660 19645 30840 36300 67000 76030 77850 99999
	800	271	1	004 026 063 999	5 6 5 9	Hampshire Amherst town Easthampton town Northampton Balance of county		015	3	8003	01325 19330 46330 99999
	009	037	1	006 0011 0016 0017 00185 0033 00448 00551 00557 0071	56564555465345645546	Middlesex Arlington town Belmont town Billerica town Burlington town Cambridge Chelmsford town Dracut town Everett Framingham town Hudson town Lexington town Lowell Malden Marlborough Maynard town Medford Melrose Natick town Newton Reading town		017	0	1123	01605 05070 05805 09840 11000 13135 17475 21990 24925 31540 35215 37000 37875 39625 39835 40315 43895 45560 56130

Vital Statistics Geographic Code Outline For The United States Page 50
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A M/NM City P/S Area Names St Cnty P/S P/MSA Place Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names Massachusetts Middlesex, con. Somerville 017 0 Stoneham town 6 4 085 Tewksbury town Wakefield town 72215 Waltham Wattriam
Watertown town
Wilmington town
Winchester town
Woburn
Balance of county 098 Word Balance Nantucket Norfolk Braintre 011 0.21 Braintree town Brookline town Brookline town
Dedham town
Holbrook town
Milton town
Needham town
Norwood town
Quincy
Randolph town
Stoughton town
Wellesley town
Westwood town
Weymouth town
Balance of coun 55745 55955 67945 069 Balance of county Plymouth
Abington town 012 037 023 2 Brockton Hull town 073 094 Plymouth town Rockland town 57775 79530 Whitman town Balance of county Suffolk 025 1 013 037 Boston Chelsea Revere Winthrop town Worcester Clinton town Fitchburg 014 037 027 1 5 5 6 Gardner Leominster
Milford town 055 076 73895 Shrewsbury town Webster town Worcester Balance of county 099 3 9

		V	ILAI	Stat	ISCIC	Effective With 1998 Data.	iii tea s	cates		Pag	e 51
		Statis P/MSA				Area Names	St 26			odes P/MSA	Place
43	001 002	000	2	999 999	9 9	Michigan Alcona Alger	20	001 003	6	0000	
	003	112	1	051 999	5 9	Allegan Holland, part Balance of county		005	4	3000	38640 99999
	004	000	2	004	6	Alpena Alpena		007	5	0000	01740
	005 006 007 008 009	000 000 000 000 240	2 2 2 2 1	999 999 999 999	9 9 9 9	Balance of county Antrim Arenac Baraga Barry Bay		009 011 013 015 017	6 6 4 3	0000 0000 0000 0000 6960	99999
	010	000	2	007 009 064 999 999	6 5 9 9	Bangor township Bay City Midland, part Balance of county Benzie		019	6	0000	05120 06020 53780 99999
	011	027	1	010 071	6	Berrien Benton Harbor Niles, part		021	3	0870	07520 57760
	012 013	000 143	2 1	999 999 002	9 9 6	Balance of county Branch Calhoun Albion		023 025	5 3	0000 3720	99999
	014	000	2	008 999	4 9	Battle Creek Balance of county Cass		027	5	0000	05920 99999
	015	000	2	071 999 999	6 9 9	Niles, part Balance of county Charlevoix		029	6	0000	57760 99999
	016 017	000	2	999 091 999	6	Cheboygan Chippewa Sault Ste. Marie Balance of county		031 033	6 5	0000	71740 99999
	018 019 020 021	000 156 000 000	2 1 2 2	999 999 999	9 9 9	Clare Clinton Crawford Delta		035 037 039 041	6 4 6 5	0000 4040 0000 0000	
	022 023	000 156	2 1	030 999 999	6 9 9	Escanaba Balance of county Dickinson Eaton		043 045	5 4	0000 4040	26360 99999
	024	000	2	024 057 999 999	5 3 9	Delta township Lansing, part Balance of county Emmet		047	5 2	0000	21520 46000 99999
	025	093	1	016 034 035 039 067 999	5 3 5 5 9	Genesee Burton Flint Flint township Grand Blanc township Mount Morris township Balance of county		049		2640	12060 29000 29020 33300 55980 99999
	026 027 028	000 000 000	2 2 2	999 999 098	9 9 6	Gladwin Gogebic Grand Traverse Traverse City, part		051 053 055	6 6 4	0000 0000 0000	80340
	029 030 031 032 033	000 000 000 000 156	2 2 2 2 1	999 999 999 999	9 9 9 9	Balance of county Gratiot Hillsdale Houghton Huron Ingham		057 059 061 063 065	5 5 5 2	0000 0000 0000 0000 4040	99999
	034	000	2	028 057 063 999	4 3 5 9	East Lansing Lansing, part Meridian township Balance of county Ionia		067	4	0000	24120 46000 53140 99999
	035 036 037	000 000 000	2 2 2	999 999 068 999	9 9 6 9	Iosco Iron Isabella Mount Pleasant Balance of county		069 071 073	5 6 4	0000 0000 0000	56020 99999

				Deac		Effective With 1998 Data.	JIII CCA			1 43	C 32
St (ital Cnty	Statis P/MSA	stics M/NM	Code	r P/S	Area Names				Codes P/MSA	Place
23	038	132	1	053	5 9	Michigan Jackson Jackson	26	075	3	3520	41420
	039	143	1	999 054		Balance of county Kalamazoo Kalamazoo		077	3	3720	99999 42160
				055 079 999	4 6 5 9	Kalamazoo township Portage					42180 65560 99999
	040 041	000 112	2 1	999	9	Balance of county Kalkaska Kent		079 081	6 1	0000 3000	
				027 041 042 056 101 109 999	6365649	East Grand Rapids Grand Rapids Grandville Kentwood Walker Wyoming Balance of county					23980 34000 34160 42820 82960 88940 99999
	042 043	000 000	2	999 999	9 9	Keweenaw Lake		083 085	6 6	0000	,,,,,
	044 045	076 000	1 2	999	9	Lapeer Leelanau Traverse City, part		087 089	4 6	2160 0000	80340
	046	011	1	999	9	Balance of county Lenawee		091	4	0440	99999
	047	011	1	001 999 999	6 9 9	Adrian Balance of county Livingston		093	3	0440	00440 99999
	048 049	000	2 2	999 999	9 9	Luce Mackinac		095 097	3 6 6	0000	
	050	076	1	019 021 026 036 048 066 090 092 095 102 999	545666445339	Macomb Chesterfield township Clinton township East Detroit Fraser Harrison township Mount Clemens Roseville St. Clair Shores Shelby township Sterling Heights Warren Balance of county		099	1	2160	15340 16520 23920 30420 36820 55820 69800 70760 72820 76460 84000 99999
	051 052	000	2 2	999	9	Manistee Marquette		101 103	6 4	0000	
	053	000	2	061 999 999	6 9 9	Marquette Balance of county Mason		105	5	0000	51900 99999
	054	000	2	013 999	6 9	Mecosta Big Rapids Balance of county		107	5	0000	08300 99999
	055 056	000 240	2 1	999 064	9 5	Menominee Midland Midland, part		109 111	6 4	0000 6960	53780
	057	000	2	999 999	9	Balance of county Missaukee		113		0000	99999
	058	076	2	065 999 999	6 9 9	Monroe Monroe Balance of county Montcalm		115	3	2160	55020 99999
	060 061	000 112	2 1	999 069 070 073	9 5 6 6	Montmorency Muskegon Muskegon Muskegon Heights Norton Shores		119 121	6	3000	56320 56360 59140
	062 063	000	2	999	9	Balance of county Newaygo		123 125	5 0	0000 2160	99999
	003	076	1	006 011 012 014 015 020 031	6666566	Oakland Auburn Hills Berkley Beverly Hills village Birmingham Bloomfield township Clawson Farmington		125	U	2100	04105 07660 08160 08640 09100 16160 27380

		7	/ital	Stat	istic	cs Geographic Effective	Code With	Outline For	The	United	d S	States	3	Pag	e 54
		Statis P/MSA				Area Names				:	St			Codes P/MSA	Place
23	082			094 097 099 104 106 107 108	5 4 6 6 4 6 5	Michigan Wayne, con. Southgate Taylor Trenton Wayne Westland Woodhaver Wyandotte	<u>:</u> L			:	26	163	0	2160	74960 79000 80420 84940 86000 88380 88900
	083	000	2	999 017 999	9 6 9	Balance o Wexford Cadillac Balance o		-				165	5	0000	99999 12320 99999

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		Statis				Davis and Marine and	a +			Codes	D1
	Chty	P/MSA	IVI / INIVI	CILLY	P/S	Area Names		Chry	P/S	P/MSA	Place
24						Minnesota	27		_		
	062				_	Ramsey, con.		123	2	5120	
				070	6	White Bear Lake, part					69970
	063	000	2	999 999	9 9	Balance of county Red Lake		125	6	0000	99999
	063 064	000	2 2	999	9	Redwood		127	6	0000	
	065	000	2	999	9	Renville		129	6	0000	
	066	000	2	,,,	_	Rice		131	5	0000	
	000	000	_	027	6	Faribault			J		20546
				048	6	Northfield, part					46924
			_	999	9 9	Balance of county			_		99999
	067	000	2	999		Rock		133	6	0000	
	068	000	2	999	9	Roseau		135	6	0000	
	069	080	1	021	4	St. Louis Duluth		137	3	2240	17000
				032	6	Hibbing					28790
				999	9	Balance of county					99999
	070	183	1		-	Scott		139	4	5120	
				054	6	Prior Lake					52594
				064	6	Shakopee					59350
	0.71	100		999	9	Balance of county			_	F100	99999
	071	183	1	005	_	Sherburne		141	5	5120	10674
				025 061	6 5	Elk River St. Cloud, part					18674 56896
				999	9	Balance of county					99999
	072	000	2	999	9	Sibley		143	6	0000	
	073	241	1		-	Stearns		145	3	6980	
				061	5	St. Cloud, part					56896
			_	999	9	Balance of county			_		99999
	074	000	2	0.50	_	Steele		147	5	0000	40200
				052 999	6 9	Owatonna Balance of county					49300 99999
	075	000	2	999	9	Stevens		149	6	0000	99999
	076	000	2	999	9	Swift		151	6	0000	
	077	000	2	999	9	Todd		153	6	0000	
	078	000	2	999	9	Traverse		155	6	0000	
	079	000	2 2 2 2 2	999	9	Wabasha		157	6	0000	
	080	000		999	9	Wadena 		159	6	0000	
	081	000	2 1	999	9	Waseca		161	6 3	0000	
	082	183	Т	019	6	Washington Cottage Grove		163	3	5120	13456
				031	6	Hastings, part					27530
				051	ő	Oakdale					47680
				067	6	Stillwater					62824
				070	6	White Bear Lake, part					69970
				073	6	Woodbury					71428
	002	0.00	2	999	9	Balance of county		1 6 5	_	0000	99999
	083 084	000 000	2 2	999 999	9 9	Watonwan Wilkin		165 167	6 6	0000 0000	
	085	000	2	シフフ	פ	Winona		169	5	0000	
	000	000	ے	072	5	Winona		100	5	0000	71032
				999	9	Balance of county					99999
	086	183	1	999	9	Wright		171	4	5120	
	087	000	2	999	9	Yellow Medicine		173	6	0000	

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		\	/ital	Stat	lsti	es Geographic Code Outline For The U Effective With 1998 Data.	nited	i S	tates		Pag	e 59
St	ital Cnty	Statis P/MSA	stics M/NM	Code: City	B P/S	Area Names					Codes P/MSA	Place
25	041	000	2			Mississippi Lee	2	8	081	4	0000	
	0 1 1		_	032	5	Tupelo			001	-		74840
	042	000	2	999	9	Balance of county Leflore			083	5	0000	99999
	0 12		_	012	6	Greenwood			000			29340
	043	000	2	999	9	Balance of county Lincoln			085	5	0000	99999
	045	000	2	003	6	Brookhaven			003	J	0000	08820
	044	000	2	999	9	Balance of county Lowndes			087	4	0000	99999
	044	000	2	800	6	Columbus			067	4	0000	15380
	0.45	122	1	999	9	Balance of county			000	4	2560	99999
	045	133	1	004	6	Madison Canton			089	4	3560	11100
				017	3	Jackson, part						36000
				029 999	6 9	Ridgeland Balance of county						62520 99999
	046	000	2	999	9	Marion			091	5 5	0000	
	047 048	000 000	2	999 999	9 9	Marshall Monroe			093 095	5	0000 0000	
	049	000	2 2 2 2 2	999	9	Montgomery			097	5	0000	
	050	000	2	999	9	Neshoba			099	6	0000	
	051 052	000 000	2	999 999	9 9	Newton Noxubee			101 103	6 6	0000 0000	
	053	000	2			Oktibbeha			105	5	0000	
				031 999	6 9	Starkville Balance of county						70240 99999
	054	000	2	999	9	Panola			107	5	0000	99999
	055	000	2	0.00	_	Pearl River			109	5	0000	EE160
				028 999	6 9	Picayune Balance of county						57160 99999
	056	000	2	999	9	Perry			111	6	0000	
	057	000	2	020	6	Pike McComb			113	5	0000	43280
				999	9	Balance of county						99999
	058	000	2	999	9	Pontotoc			115	6	0000	
	059 060	000 000	2 2	999 999	9 9	Prentiss Quitman			117 119	6 6	0000 0000	
	061	133	ī		_	Rankin			121	4	3560	
				002 017	6 3	Brandon Jackson, part						08300 36000
				027	6	Pearl						55760
	062	000	2	999 999	9 9	Balance of county			123	6	0000	99999
	063	000	2	999	9	Scott Sharkey			125	6	0000	
	064	000	2	999	9	Simpson			127	6	0000	
	065 066	000 000	2 2	999 999	9 9	Smith Stone			129 131	6 6	0000 0000	
	067	000	2			Sunflower			133	5	0000	
				016 999	6 9	Indianola Balance of county						34740 99999
	068	000	2	999	9	Tallahatchie			135	6	0000	22222
	069	000	2	999		Tate			137	6	0000	
	070 071	000 000	2 2	999 999	9 9	Tippah Tishomingo			139 141	6 6	0000 0000	
	072	000	2	999	9	Tunica			143	6	0000	
	073 074	000 000	2 2	999 999	9	Union Walthall			$\frac{145}{147}$	6 6	0000 0000	
	075	000	2		-	Warren			149	5	0000	
				033 999	6 9	Vicksburg						76720 99999
	076	000	2	999	9	Balance of county Washington			151	4	0000	99999
				011	5	Greenville						29180
	077	000	2	999 999	9 9	Balance of county Wayne			153	6	0000	99999
	078	000	2	999	9	Webster			155	6	0000	
	079 080	000 000	2 2 2 2	999 999	9 9	Wilkinson Winston			157 159	6 6	0000 0000	
	081	000		999	9	Yalobusha			161	6	0000	
	082	000	2	034	6	Yazoo City			163	5	0000	81520
				999	9	Yazoo City Balance of county						99999
						-						

		`	/ILaI	Stat	ISCIC	Effective With 1998 Data.	ille ollicea	states		Pag	e 01
St		Statis P/MSA				Area Names				Codes P/MSA	Place
26	042 043 044 045 046 047 048	000 000 000 000 000 000 145	2 2 2 2 2 2	999 999 999 999 999	99999	Missouri Henry Hickory Holt Howard Howell Iron Jackson	29	083 085 087 089 091 093	6666561	0000 0000 0000 0000 0000 0000 3760	
	010	113	_	006 021 024 028 032 042 999	5632559	Blue Springs Grandview Independence, part Kansas City, part Lee's Summit, part Raytown Balance of county		0,53	_	3700	06652 28324 35000 38000 41348 60788 99999
	049	142	1	009 027 999	6 5 9	Jasper Carthage Joplin, part Balance of county		097	4	3710	11656 37592 99999
	050	243	1	001	6	Jefferson Arnold Balance of county		099	3	7040	01972 99999
	051	000	2	054 999	6 9	Johnson Warrensburg Balance of county		101	5	0000	77092 99999
	052 053 054 055 056 057 058 069 061 062 063	000 000 145 000 000 243 000 000 000 000	2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	999999999999999999999999999999999999999	99999999999	Knox Laclede Lafayette Latayette Lawrence Lewis Lincoln Linn Livingston McDonald Macon Madison Maries		103 105 107 109 111 113 115 117 119 121 123 125	655565666666	0000 0000 3760 0000 7040 0000 0000 0000 0000	
	064	000	2	022 999 999	6	Marion Hannibal, part Balance of county		127	5	0000	30214 99999
	065 066 067 068 069 070 071 072	000 000 000 000 000 000 000	2 2 2 2 2 2 2 2	999 999 999 999 999	9999999	Mercer Miller Mississippi Moniteau Monroe Montgomery Morgan New Madrid		129 131 133 135 137 139 141 143	66666666	0000 0000 0000 0000 0000 0000	
	073	142	1	051 999	6 9	Sikeston, part Balance of county Newton		145	5	3710	67790 99999
	074	000	2	027 999 036	5 9 6	Joplin, part Balance of county Nodaway Maryville		147	6	0000	37592 99999 46640
	075 076 077 078 079 080	000 000 000 000 000	2 2 2 2 2 2	999 999 999 999 999	999999	Balance of county Oregon Osage Ozark Pemiscot Perry Pettis		149 151 153 155 157 159	666665	0000 0000 0000 0000 0000	99999
	081	000	2	050 999 044	6 9 6	Sedalia Balance of county Phelps Rolla		161	5	0000	66440 99999 62912
	082 083	000 145	2 1	999 999	9 9	Balance of county Pike Platte		163 165	6 4	0000 3760	99999
	084 085 086 087	000 000 000 000	2 2 2 2	028 999 999 999 999	2 9 9 9 9	Kansas City, part Balance of county Polk Pulaski Putnam Ralls Hannibal, part		167 169 171 173	6 5 6 6	0000 0000 0000 0000	38000 99999 30214

						Effective With 1998 Data.				5	
St		Stati: P/MSA				Area Names				odes P/MSA	Place
26	087					Missouri Ralls, con.	29	173	6	0000	
	067			999	9	Balance of county		1/3	O	0000	99999
	088	000	2		_	Randolph		175	6	0000	
				038 999	6 9	Moberly Ralango of gounty					49034 99999
	089	145	1	222	9	Balance of county Ray		177	6	3760	22222
				015	6	Excelsior Springs, part					23086
	090	000	2	999 999	9 9	Balance of county		179	6	0000	99999
	090	000	2 2	999	9	Reynolds Ripley		181	6 6	0000	
	092	243	1			Ripley St. Charles		183	3	7040	
				039 046	6 4	O'Fallon					54074 64082
				049	5	St. Charles St. Peters					65126
				999	9	Balance of county					99999
	093 094	000	2 2	999 999	9	St. Clair		185 186	6 6	0000	
	094	000 000	2	999	9	Ste. Genevieve St. Francois		187	5	0000 0000	
	0,7,0	000	_	016	6	Farmington			J	0000	23752
	006	040	1	999	9	Balance of county		100	1	7040	99999
	096	243	1	002	6	St. Louis Ballwin		189	1	7040	03160
				003	6	Bellefontaine Neighbors					04222
				005	6	Berkeley					04906
				007 010	6 5	Bridgeton Chesterfield					08398 13600
				011	5	Clayton					14572
				013	6	Crestwood					17218
				014 017	6 6	Creve Coeur Ferguson					17272 23986
				018	4	Florissant					24778
				023	6	Hazelwood					31276
				026 031	6 5 5	Jennings Kirkwood					37178 39044
				035	5	Maryland Heights					46586
				040	6	Overland					55550
				043 045	6 6	Richmond Heights St. Ann					61706 63956
				053	5	University City					75220
				056	6	Webster Groves					78154
	097	243	1	999 048	9 2	Balance of county St. Louis city		510	2	7040	99999 65000
	098	000	2			Saline		195	6	0000	
				034	6	Marshall					46316
	099	000	2	999 999	9 9	Balance of county Schuyler		197	6	0000	99999
	100	000	2	999	9	Scotland		199	6	0000	
	101	000	2	0.51	_	Scott		201	5	0000	67700
				051 999	6 9	Sikeston, part Balance of county					67790 99999
	102	000	2	999	9	Shannon		203	6	0000	
	103	000	2	999	9	Shelby		205 207	6	0000	
	104 105	000	2	999 999	9	Stoddard Stone		207	5	0000 0000	
	106	000	2	999	9	Sullivan		211	656656	0000	
	107	000	2	999	9	Taney		213	5	0000	
	108 109	000 000	2	999 999	9 9 9	Texas Vernon		215 217	6	0000 0000	
	110	243	ĩ	999	9	Warren		219	6	7040	
	111	000	2	999	9	Washington		221	6	0000	
	112 113	000 270	2 2 2 2 2 1 2 2 1	999 999	9	Wayne Webster		223 225	6	0000 7920	
	114	000	2	999	9	Worth		227	6	0000	
	115	000	2	999	9	Wright		229	6	0000	

FIPS Codes St Cnty P/S P/MSA Place Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names Nebraska 117 6 119 5 999 9 McPherson Madison Norfolk Balance of county Balanc Merrick Morrill Nance Nemaha Nuckolls Otoe Pawnee Perkins Phelps 127 129 131 Nuckolls 067 137 070 071 Pierce Platte Columbus Balance of county 073 074 075 Polk Red Willow 147 149 0000 0000 Richardson Rock Saline Sarine
Sarpy
Bellevue
Papillion
Balance of county 012 38295 6 9 9 Saunders
Scotts Bluff
Scottsbluff
Balance of county 079 157 9 Balance of county Seward 163 999 Sheridan Sherman 167 169 084 0000 0000 Sioux Stanton Thayer 173 Thomas Thurston Valley 1 2 2 Washington Wayne Webster Wheeler York

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Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names	St Cnt	FIPS (y P/S	Codes P/MSA	Place
29 Nevada	32	-		
001 000 2 002 5 Carson City 002 000 2 999 9 Churchill 003 159 1 Clark		1 6	0000 0000 4120	09700
001 6 Boulder 0 004 4 Henderson 005 2 Las Vegas 006 5 North Las	City 1 5	J 1	1120	06500 31900 40000 51800 99999
004 000 2 999 9 Douglas 005 000 2 Elko	00		0000	
003 6 Elko 999 9 Balance		7 3	0000	22500 99999
006 000 2 999 9 Esmeralda 007 000 2 999 9 Eureka 008 000 2 999 9 Humboldt 009 000 2 999 9 Lincoln 011 000 2 999 9 Lyon 012 000 2 999 9 Mineral 013 159 1 999 9 Nye 014 000 2 999 9 Pershing 015 000 2 999 9 Storey 016 230 1 Washoe	00 01 01 01 01 01 02 02 02 02	1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	0000 0000 0000 0000 0000 0000 4120 0000 6720	
007 3 Reno 008 4 Sparks 999 9 Balance o 017 000 2 999 9 White Pine	of county	3 6	0000	60600 68400 99999

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		Statis P/MSA				Area Names	St			odes P/MSA	Place
30	001	000	2	006	6	New Hampshire Belknap Laconia	33	001	5	0000	40180
	002 003	000	2 2	999 999 005	9 9 6	Balance of county Carroll Cheshire Keene		003 005	5 4	0000	99999 39300
	004	000	2	999	9	Balance of county Coos		007	5	0000	99999
	005	000	2	001 999	6 9	Berlin Balance of county Grafton		009	4	0000	05140 99999
	006	037	1	007 999	6 9	Lebanon Balance of county Hillsborough		011	2	1123	41300 99999
	007	000	2	008 009 999	4 4 9	Manchester Nashua Balance of county Merrimack		013	3	0000	45140 50260 99999
				003 999	5 9	Concord Balance of county					14200 99999
	800	037	1	010 012	5 5	Rockingham Portsmouth Salem town		015	3	1123	62900 66660
	009	037	1	999 004	9 5	Balance of county Strafford Dover		017	3	1123	99999 18820
	010	000	0	011 013 999	5 6 9	Rochester Somersworth Balance of county		010	_	0000	65140 69940 99999
	010	000	2	002 999	6 9	Sullivan Claremont Balance of county		019	5	0000	12900 99999

Page 68 Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names FIPS Codes St Cnty P/S P/MSA Place New Jersey 001 017 Atlantic 001 3 Atlantic City Brigantine 130 Hammonton. Pleasantville Somers Point Ventnor City
Balance of county 002 028 003 1 Bergen Bergenfield borough Cliffside Park borough 13570 18400 031 038 Dumont borough
Elmwood Park borough 6 5 Englewood Fair Lawn borough Fairview borough Fort Lee borough 25770 Garfield Glen Rock borough 053 060 Hackensack
Hasbrouck Heights borough
Lodi borough
Lyndhurst township
New Milford borough 30420 North Arlington borough Oakland borough 117 Palisades Park borough
Paramus borough
Ramsey borough
Ridgefield Park village
Ridgewood village 5 65280 65340 72360 72420 River Edge borough Rutherford borough 144 156 157 Saddle Brook township
Teaneck township
Tenafly borough
Wallington borough 5 6 Westwood borough Wyckoff township Balance of county 003 214 005 2 Burlington Cinnaminson township
Delran township
Evesham township
Florence township Maple Shade township
Moorestown township
Mount Holly township
Mount Laurel township
Pemberton township
Willingboro township 47880 102 122 5 5 57510 Balance of county 004 214 Camden 007 1 Bellmawr borough Camden
Cherry Hill township
Collingswood borough
Gloucester City
Gloucester township
Haddonfield borough 051 26820 6 4 054 28770 28740 Haddon township Lindenwold borough Pennsauken township 177 Voorhees township Winslow township Balance of county Cape May
Ocean City
Balance of county 005 017 009 4 006 293 Cumberland 011 3 Bridgeton Millville 5 4 9

Vineland

Balance of county

Vital Statistics Geographic Code Outline For The United States Page 69
Effective With 1998 Data.

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					Area Names	St		PS C P/S 1		Place
31					New Jersey	34				
007	198	1	017 033 069 089 094 102 1151 164 999	556445665256699	Essex Belleville township Bloomfield township Cedar Grove township East Orange Irvington township Livingston township Maplewood township Millburn township Montclair township Newark Nutley township South Orange Village township Verona township Balance of county Balance of county			1	5640	04690 016230 119390 34430 40920 47485 51000 69274 75800 69274 75800 99999
008		1	049 096 168 171 179	6655669	Gloucester Deptford township Glassboro borough Monroe township Washington township West Deptford township Woodbury Balance of county		015	3	6160	17710 26340 47250 77180 78800 82120 99999
009		1	059 066 071 073 109 147 161 170 173 999	465355646590	Hudson Bayonne Harrison Hoboken Jersey City Kearny North Bergen township Secaucus Union City Weehawken township West New York Balance of county		017	1	3640	03580 32250 36000 36510 52440 66570 74630 79610 99999
010 011		1	034 041 056 075 133 160	9 6545649	Hunterdon Mercer East Windsor township Ewing township Hamilton township Lawrence township Princeton borough Trenton Balance of county		019 021	3 2	5015 8480	19780 22180 29310 39510 60900 74000 99999
012		1	016 032 036 063 091 105 110 116 127 127 145 150 153 178	9 654666554556556669	Middlesex Carteret borough East Brunswick township Edison township Highland Park borough Metuchen borough Metuchen borough New Brunswick North Brunswick township Old Bridge township Perth Amboy Piscataway township Plainsboro township Sayreville borough South Brunswick township South Plainfield borough South River borough Woodbridge township Balance of county			1	5015	10750 18970 20260 31470 45690 45900 51210 54705 58200 58980 69790 68790 68790 68790 69420 89999
013	186	1	001 002 035 047 062 068 072 082	666665555	Monmouth Aberdeen township Asbury Park Eatontown borough Freehold borough Hazlet township Howell township Keansburg borough Long Branch Manalapan township		025	1	5190	00070 01960 19840 25200 30690 33300 36480 41310 42990

Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names FIPS Codes St Cnty P/S P/MSA Place New Jersey Monmouth, con. 025 1 Marlboro township Middletown township Neptune township Ocean township
Red Bank borough
Tinton Falls borough
Balance of county 9 014 198 Morris
Denville township 027 2 029 058 076 Dover Hanover township Lincoln Park borough Madison borough Hanover township
Lincoln Park borough
Madison borough
Morristown
Morris township
Parsippany-Troy Hills township
Pequannock township
Balance of county
Ocean
Rerkeley township 015 186 029 2 Ocean
Berkeley township
Brick township
Dover township
Jackson township
Lakewood township
Manchester township
Point Pleasant borough
Balance of county
Passaic 074 5 5 5 clifton
Hawthorne borough
Little Falls township
Passaic
Paterson
Pompton Lakes borough
Ringwood borough
Totowa borough
Wayne township
West Paterson boro
Balance of com
Salem
Somerset 016 028 031 2 56550 57000 121 132 139 3 6 6 018 035 Somerset
Bridgewater township
Franklin township
Hillsborough township
Manville borough
North Plainfield borough
Somerville borough
Balance of county 149 999 Jugh
Jounty

Jong borough
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Jion

Berkeley Heights town
Clark township
Cranford township
Elizabeth
Hillside township
Linden
New Providence boron
Plainfield
Rahway
Roselle bor
Roselle
Scote'
Sr 99999 019 198 037 3 Hopatcong borough Balance of county 020 198 039 2 Berkeley Heights township 15670 065 077 32010 New Providence borough Plainfield Plainfield
Rahway
Roselle borough
Roselle Park borough
Scotch Plains township
Springfield township
Summit
Union township
Westfield
Balance of county
Jarren 172 021 198 Warren Phillipsburg Balance of county 041 4 5640

Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names 32	
001 005 1 Bernalillo 001 2 002 2 Albuquerque 999 9 Balance of county 002 000 2 999 9 Catron 003 6	02000 99999 0000 0000 64930 99999
002 000 2 999 9 Catron 003 6	0000 0000 64930 99999 0000
003 000 2 Chaves 005 4	99999
014 5 Roswell	0000
999 9 Balance of county 004 000 2 999 9 Cibola 005 000 2 999 9 Colfax 007 6	0000
006 000 2 Curry 009 5	0000
005 5 Clovis	16420
999 9 Balance of county	99999
007 000 2 999 9 De Baca 011 6	0000
008 158 1 Dona Ana 013 3	4100
010 4 Las Cruces	39380
999 9 Balance of county	99999
009 000 2 Eddy 015 5	0000
003 6 Artesia	05220
004 6 Carlsbad	12150
999 9 Balance of county	99999
010 000 2 Grant 017 5	0000
016 6 Silver City 999 9 Balance of county 011 000 2 999 9 Guadalupe 019 6 012 000 2 999 9 Harding 021 6	73260 99999 0000
013 000 2 999 9 Hidalgo 023 6 014 000 2 Lea 025 4	0000 0000 0000
009 5 Hobbs	32520
999 9 Balance of county	99999
015 000 2 999 9 Lincoln 027 6	0000
016 255 1 999 9 Los Alamos 028 6	7490
017 000 2 Luna 029 6	0000
006 6 Deming	20270
999 9 Balance of county	99999
018 000 2 McKinley 031 4	0000
008 6 Gallup	28460
999 9 Balance of county	99999
019 000 2 999 9 Mora 033 6	0000
020 000 2 Otero 035 4	0000
001 5 Alamogordo	01780
999 9 Balance of county 021 000 2 999 9 Quay 037 6 022 000 2 999 9 Rio Arriba 039 5 023 000 2 Roosevelt 041 6	99999 0000 0000 0000
012 6 Portales	59260
999 9 Balance of county	99999
024 005 1 Sandoval 043 4	0200
013 5 Rio Rancho	63530
999 9 Balance of county	99999
025 000 2 San Juan 045 4	0000
007 5 Farmington	25800
999 9 Balance of county	99999
026 000 2 San Miguel 047 5	0000
011 6 Las Vegas	39940
999 9 Balance of county	99999
027 255 1 Santa Fe 049 4	7490
015 4 Santa Fe	70500
999 9 Balance of county	99999
028 000 2 999 9 Sierra 051 6	0000
028 000 2 999 9 Sierra 051 6 029 000 2 999 9 Socorro 053 6 030 000 2 999 9 Taos 055 6 031 000 2 999 9 Torrance 057 6 032 000 2 999 9 Union 059 6 033 005 1 999 9 Valencia 061 5	0000 0000 0000 0000 0200

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St		Statis P/MSA				Area Names				Codes P/MSA	Place
33	0.01	004	1			New York	36	001	2	0160	
	001	004	1	001	3	Albany Albany		001	2	0160	01000
				007	3	Bethlehem town					06354
				017 097	6 6	Cohoes Watervliet					16749 78674
				999	9	Balance of county					99999
	002 003	000 031	2 1	999	9	Allegany Broome		003 007	4	0000 0960	
	003	031	_	800	4	Binghamton		007	5	0900	06607
				024 043	6 6	Endicott village					24515 38748
				095	5	Johnson City village Vestal town					77255
	004	0.00	0	999	9	Balance of county		000	4	0000	99999
	004	000	2	065	6	Cattaraugus Olean		009	4	0000	54716
	005	0.7.6		999	9	Balance of county		011		01.50	99999
	005	276	1	003	5	Cayuga Auburn		011	4	8160	03078
				999	9	Balance of county					99999
	006	137	1	021	6	Chautauqua Dunkirk		013	3	3610	21105
				026	6	Fredonia village					27419
				042 999	5 9	Jamestown					38264
	007	085	1	999	9	Balance of county Chemung		015	4	2335	99999
				023	5	Elmira					24229
	008	000	2	999 999	9 9	Balance of county Chenango		017	4	0000	99999
	009	000	2			Clinton		019	$\bar{4}$	0000	50554
				073 999	6 9	Plattsburgh Balance of county					58574 99999
	010	000	2	999	9	Columbia		021	4	0000	
	011	000	2	019	6	Cortland Cortland		023	5	0000	18388
				999	9	Balance of county					99999
	012 013	000 081	2 1	999	9	Delaware Dutchess		025 027	5 2	0000 2281	
	013	001	Τ.	006	6	Beacon		027	4	2201	05100
				076	5 9	Poughkeepsie					59641
	014	043	1	999	9	Balance of county Erie		029	1	1280	99999
				012	2	Buffalo					11000
				020 036	6 6	Depew village Hamburg village					20313 31643
				044	6	Kenmore village					39232
				046 047	6 6	Lackawanna Lancaster village					40189 41135
				091	6	Tonawanda					74166
				099 999	5 9	West Seneca town Balance of county					80918 99999
	015	000	2	999	9	Essex		031	5 5	0000	
	016 017	000 000	2 2	999	9	Franklin Fulton		033 035	5 4	0000 0000	
	017	000	-	034	6	Gloversville		033	-	0000	29443
	018	236	1	999	9	Balance of county Genesee		037	4	6840	99999
	010	250	_	005	6	Batavia		037	-	0010	04715
	019	000	2	999 999	9 9	Balance of county Greene		039	5	0000	99999
	020	000	2	999	9	Hamilton		041	6	0000	
	021 022	289 000	1 2	999	9	Herkimer Jefferson		043 045	4 3	8680 0000	
	022	000	2	096	5	Watertown		043	5	0000	78608
	023	000	2	999 999	9 9	Balance of county Lewis		049	5	0000	99999
	023	236	ĺ	999	9	Livingston		051	4	6840	
	025	276	1	066	6	Madison Oneida		053	4	8160	54837
				999	9	Balance of county					99999
	026	236	1	000	E	Monroe		055	1	6840	00246
				009 015	5 5	Brighton town Chili town					08246 15462
				030	5 4	Gates town					28442
				035	4	Greece town					30290

Vital Statistics Geographic Code Outline For The United States Page 73 Effective With 1998 Data.

Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names FIPS Codes St Cnty P/S P/MSA Place New York 055 1 Monroe, con. Henrietta town Irondequoit town Penfield town Rochester Balance of county Montgomery Amsterdam ğ Balance of county Nassau 059 0 assau
East Rockaway village
Floral Park village
Freeport village
Garden City village 027 Glen Cove Hempstead village 33139 Hempstead village
Long Beach
Lynbrook village
Massapequa Park village
Mineola village
Rockville Centre village
Valley Stream village
Westbury village
Balance of county
New York city
Bronx borough, Bronx county
Brooklyn borough, Kings county
Manhattan borough, New York county
Oueens borough, Queens county
Staten Island borough, Richmond county
Niagara

063 079 79444 ğ 077 Niagara Lockport Niagara Falls 53682 North Tonawanda Balance of county Oneida Rome Utica Balance of county Onondaga Syracuse Balance of county Ontario Canandaigua 999 Geneva, part Balance of county Orange Middletown Newburgh Balance of county Orleans 3 Oswego Fulton Oswego Balance of county Otsego 9 Oneonta Balance of county Putnam Carmel town
Balance of county
Rensselaer Troy Balance of county Rockland Spring Valley village Suffern village Balance of county St. Lawrence Massena village 075 Ogdensburg Potsdam village Balance of county Saratoga Clifton Park town 042 004 091 3

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V	ıtal	Statis	tics	Code	S .					Codes	_
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
33						New York	36				
33	042						30	091	3	0160	
	042			000	_	Saratoga, con.		091	3	0100	CEOFE
				083	5	Saratoga Springs					65255
			_	999	9	Balance of county			_		99999
	043	004	1			Schenectady		093	3	0160	
				062	6	Niskayuna town					51264
				081	5	Rotterdam town					63935
				085	4	Schenectady					65508
				999	9	Balance of county					99999
	044	004	1	999	9	Schoharie		095	5	0160	
	045	000	2	999	9	Schuyler		097	6	0000	
			2	222	9			099	5		
	046	000	2	0.21	_	Seneca		099	5	0000	20640
				031	6	Geneva, part					28640
				999	9	Balance of county					99999
	047	000	2			Steuben		101	4	0000	
				018	6	Corning					18256
				999	9	Balance of county					99999
	048	193	1			Suffolk		103	0	5380	
				004	6	Babylon village					03408
				048	5	Lindenhurst village					42554
				070	6	Patchoque village					56660
				999	9	Balance of county					99999
	040	000	2		9			105	4	0000	99999
	049	000	2	999		Sullivan		105	4	0000	
	050	031	1	999	9	<u>Tioga</u>		107	4	0960	
	051	000	2		_	Tompkins		109	4	0000	
				041	5	Ithaca					38077
				999	9	Balance of county					99999
	052	000	2			Ulster		111	3	0000	
				045	6	Kingston					39727
				999	9	Balance of county					99999
	053	109	1		-	Warren		113	4	2975	
	033	100	_	033	6	Glens Falls			-	20,0	29333
				999	9	Balance of county					99999
	054	109	1	999	9			115	4	2975	22222
					9	Washington					
	055	236	1	999	9	Wayne		117	4	6840	
	056	197	1		_	Westchester		119	1	5600	20100
				037	6	Harrison village					32402
				052	6	Mamaroneck village					44831
				058	4 4	Mount Vernon					49121
				060	4	New Rochelle					50617
				068	6	Ossining village					55530
				071	6	Peekskill					56979
				074	6	Port Chester village					59223
				082	6	Rye					64309
				084	6	Scarsdale village					65431
				090	6	Tarrytown village					73176
					٢						
				100	5	White Plains					81677
				101	3 5	Yonkers					84000
				102	5	Yorktown town					84077
			_	999	9	Balance of county			_		99999
	057	000	2	999	9	Wyoming		121	5	0000	
	058	000	2	999	9	Yates		123	6	0000	

			VILAI	Stat	ISCIC	Effective With 1998 Data.	Ullicea	States		Pag	e /5
St		Statis P/MSA				Area Names		t Cnty		odes P/MSA	Place
34	001	116	1	005	5 6	North Carolina Alamance Burlington	3′	001	3	3120	09060
	002 003 004 005 006 007 008 009 010	124 000 000 000 000 000 000 000 305 014	1 2 2 2 2 2 2 2 2 1 1	018 9999 9999 9999 9999 9999	6999999999	Graham Balance of county Alexander Alleghany Anson Ashe Avery Beaufort Bertie Bladen Brunswick Buncombe		003 005 007 009 011 013 015 017 019	5666656543	3290 0000 0000 0000 0000 0000 0000 9200 9480	27280 99999
	012	124	1	003 999	4 9	Asheville Balance of county Burke		023	4	3290	02140 99999
	012	124	1	023 036 999	5 6 9	Hickory, part Morganton Balance of county		023	4	3290	31060 44400 99999
	013	051	1	010 026	5	Cabarrus Concord Kannapolis, part		025	4	1520	14100 35200
	014	124	1	999	9 6	Balance of county Caldwell Lenoir		027	4	3290	99999 37760
	015	000	2	999	9 6	Balance of county Camden Elizabeth City, part		029	6	0000	99999
	016 017 018	000 000 124	2 2 1	999 999 999	9	Balance of county Carteret Caswell Catawba		031 033 035	4 6 3	0000 0000 3290	99999
	019 020 021 022 023	226 000 000 000 000	1 2 2 2 2	023 999 999 999 999	5 9 9 9 9	Hickory, part Balance of county Chatham Cherokee Chowan Clay Cleveland		037 039 041 043 045	5 6 6 4	6640 0000 0000 0000 0000	31060 99999
	024 025	000	2 2	044 999 999	6 9 9	Shelby Balance of county Columbus Craven		047 049	5 4	0000	61200 99999
	026	091	1	021 037 999	6 6 9	Havelock New Bern Balance of county Cumberland		051	2	2560	30120 46340 99999
	027	200	1	014 999 999	4 9 9	Fayetteville Balance of county Currituck		053	6	5720	22920 99999
	028 029	000 116	2	999 024 031 047	4 6 6	Dare Davidson High Point, part Lexington Thomasville		055 057	6	0000 3120	31400 38060 67420
	030 031 032	116 000 226	1 2 1	999 999 999	9 9 9	Balance of county Davie Duplin Durham		059 061 063	5 5 3	3120 0000 6640	99999
	033	238	1	008 011 999	5 3 9	Chapel Hill, part Durham, part Balance of county Edgecombe		065	4	6895	11800 19000 99999
				041 046 999	5 6 9	Rocky Mount, part Tarboro Balance of county		_	_		57500 66700 99999
	034	116	1	024 027 050	4 6 3	Forsyth High Point, part Kernersville, part Winston-Salem		067	2	3120	31400 35600 75000
	035 036	226 051	1	999	9	Balance of county Franklin Gaston		069 071	5 3	6640 1520	99999
				016	4	Gastonia					25580

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St		Statis P/MSA			P/S	Area Names		t Cnty		Codes P/MSA	Place
34	036					North Carolina Gaston, con.	3	071	3	1520	
	037 038 039 040 041	000 000 000 000 116	2 2 2 2 1	999 999 999 999	99999	Balance of county Gates Graham Granville Greene Guilford		073 075 077 079 081	6 5 6	0000 0000 0000 0000 3120	99999
	041	000	2	019 024 027 999	3 4 6 9	Greensboro High Point, part Kernersville, part Balance of county Halifax		081		0000	28000 31400 35600 99999
	043	000		040 999 999	6 9 9	Roanoke Rapids Balance of county Harnett		085		0000	56900 99999
	044 045 046 047 048 049	000 000 000 000 000	2 2 2 2 2 2 2	999 999 999 999	999999	Haywood Henderson Hertford Hoke Hyde Iredell		087 089 091 093 095	5 4 6 6	0000 0000 0000 0000 0000	
	050 051 052	000 226 000	2 1 2	045 999 999 999	69999	Statesville Balance of county Jackson Johnston Jones		099 101 103	4	0000 6640 0000	64740 99999
	053	000	2	043	6	Lee Sanford		105		0000	59280
	054	000	2	999 028	9 5	Balance of county Lenoir Kinston		107	4	0000	99999 35920
	055 056 057 058 059	051 000 000 014 000	1 2 2 1 2	999 999 999 999 999	999999	Balance of county Lincoln McDowell Macon Madison Martin		109 111 113 115 117	5 6 6 5	1520 0000 0000 0480 0000	99999
	060	051	1	009 033 034 999	26699	Mecklenburg Charlotte Matthews Mint Hill Balance of county		119		1520	12000 41960 43480 99999
	061 062 063 064	000 000 000 238	2 2 2 1	999 999 999	9 9 9	Mitchell Montgomery Moore Nash Rocky Mount, part		121 123 125 127	6 4	0000 0000 0000 6895	57500
	065	305	1	999 048	9 4	Balance of county New Hanover Wilmington		129	3	9200	99999 74440
	066 067	000 136	2 1	999 999 025	9 9 5	Balance of county Northampton Onslow Jacksonville		131 133	6 3	0000 3605	99999 34200
	068	226	1	999 006 008 011	9 6 5 3	Balance of county Orange Carrboro Chapel Hill, part Durham, part		135	4	6640	99999 10620 11800 19000
	069 070	000	2 2	999 999 013 999	9 9 6 9	Balance of county Pamlico Pasquotank Elizabeth City, part Balance of county		137 139		0000	99999 20580 99999
	071 072 073 074	000 000 000 117	2 2 2 1	999 999 999	9 9 9	Pender Perquimans Person Pitt		141 143 145 147	6 5	0000 0000 0000 3150	
	075	000	2	020 999 999	5 9 9	Greenville Balance of county Polk Bandolph		149 151	6	0000	28080 99999
	076	116	1	002 024	6 4	Randolph Asheboro High Point, part		121	3	3120	02080 31400

						Effective With 1998 Data.				_	
St C		Statis P/MSA				Area Names				odes P/MSA	Place
34	076			999	9	North Carolina Randolph, con. Balance of county	37	151	3	3120	99999
	077 078	000 000	2 2	999	9	Richmond Robeson		153 155	5 3	0000	
	079	000	2	032 999	6 9	Lumberton Balance of county Rockingham		157	4	0000	39700 99999
				012 039 999	6 6 9	Eden Reidsville Balance of county					20080 55900 99999
	080	051	1	026	5	Rowan Kannapolis, part		159	3	1520	35200
	081 082 083	000 000 000	2 2 2	042 999 999 999	6 9 9	Salisbury Balance of county Rutherford Sampson Scotland		161 163 165	4 5 5	0000 0000 0000	58860 99999
	084	000	2	029 999	6 9	Laurinburg Balance of county Stanly		167	4	0000	37220 99999
				001 999	6	Albemarle Balance of county			_		00680 99999
	085 086 087 088 089 090	116 000 000 000 000 051	1 2 2 2 2	999 999 999 999	99999	Stokes Surry Swain Transylvania Tyrrell Union		169 171 173 175 177 179	5 4 6 5 6 4	3120 0000 0000 0000 0000 1520	
			_	035 999	6 9	Monroe Balance of county			_		43920 99999
	091	000	2	022 999	6 9	Vance Henderson Balance of county		181	5	0000	30660 99999
	092	226	1	007 015 038	5 6 3	Wake Cary Garner		183	2	6640	10740 25480 55000
	093 094 095	000 000 000	2 2 2	999 999 999	9 9 9	Raleigh Balance of county Warren Washington Watauga		185 187 189	6 6 5	0000 0000 0000	99999
	096	110	1	004 999	6 9	Boone Balance of county Wayne		191	3	2980	07080 99999
	097	000	2	017 999 999	5 9 9	Goldsboro Balance of county Wilkes		193	4	0000	26880 99999
	097	000	2	049	5	Wilson Wilson		193	4	0000	74540
	099 100	116 000	1 2	999 999 999	9 9 9	Balance of county Yadkin Yancey		197 199	5 6	3120 0000	99999

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St (ital Cnty	Statis P/MSA	tics M/NM	Code City	r P/S	Area Names Ohio	St	Cnty		Codes P/MSA	Place
30	001 002	000 164	2 1	999 072	9 5	Adams Allen Lima	33	001 003	5 3	0000 4320	43554
	003	000	2	999	9	Balance of county Ashland Ashland		005	5	0000	99999
	004	059	1	999	9	Balance of county Ashtabula Ashtabula		007	4	1680	99999
	005	000	2	035 999	6 9	Conneaut Balance of county Athens		009	4	0000	18350 99999
	006	164	1	006 999 999	6 9 9	Athens Balance of county Auglaize		011	5 4	4320	02736 99999
	007 008 009	300 057 120	1 1 1	999	9	Belmont Brown Butler		013 015 017	4 5 2	9000 1640 3200	05050
				050 063 088 102 117	5 4 5 6	Fairfield Hamilton Middletown, part Oxford Sharonville, part					25970 33012 49840 59234 71892
	010 011	045 000	1 2	999 999 134	9 9 6	Balance of county Carroll Champaign		019 021	5 5	1320 0000	99999 79072
	012	070	1	999	9	Urbana Balance of county Clark Springfield		023	3	2000	79072 99999 74118
	013 014	057 000	1 2	999 999	9	Balance of county Clermont Clinton		025 027	3 5	1640 0000	99999
	015	309	1	149 999 045	6 9 6	Wilmington Balance of county Columbiana East Liverpool		029	3	9320	85792 99999 23730
	016	000	2	113 999	6 9	Salem Balance of county Coshocton		031	5	0000	69834 99999
	017	174	1	036 999	6	Coshocton Balance of county Crawford		033	5	4800	18868 99999
	010	0.5.0	1	024 058 999	6 6 9	Bucyrus Galion Balance of county		025	0	1.500	10030 29162 99999
	018	059	1	009 0010 0013 0010 0012 0021 0021 0021 0033 0044 0055 0077 0087 0087 0087 0087 0087 0087	6666666666145465465665646665	Cuyahoga Bay Village Beachwood Bedford Bedford Heights Berea Brecksville Broadview Heights Brooklyn Brook Park Cleveland Cleveland Cleveland Heights East Cleveland Euclid Fairview Park Garfield Heights Lakewood Lyndhurst Maple Heights Mayfield Heights Middleburg Heights North Olmsted North Royalton Parma Parma Parma Heights Rocky River Seven Hills Shaker Heights		035	0	1680	04416 044508 04920 05690 090644 090246 090246 090246 090246 090246 09246

		V	ILAI	Stat	ISCIC	Effective With 1998 Data.	: Ullicea i	states		Pag	e 01
St		Statis P/MSA				Area Names	St 39			Codes P/MSA	Place
36	037 038 039	000 000 000	2 2 2	999 999	9 9	Ohio Hocking Holmes Huron	39	073 075 077	5 5 4	0000 0000 0000	
	040 041	000 273	2	099 999 999	6 9 9	Norwalk Balance of county Jackson Jefferson		079 081	5 4	0000	57302 99999
	041	000	2	123 999	6 9	Steubenville Balance of county					74608 99999
				089 999	6 9	Knox Mount Vernon Balance of county		083	5	0000	53102 99999
	043	059	1	044 085 103 146 147 148 999	6566669	Lake Eastlake Mentor Painesville Wickliffe Willoughby Willowick Balance of county		085	3	1680	23618 49056 59416 85036 85484 85638 99999
	044	128	1	066 999	6	Lawrence Ironton Balance of county		087	4	3400	37464 99999
	045	064	1	090 111 999	5 5 9	Licking Newark Reynoldsburg, part		089	3	1840	54040 66390
	046	000	2	014 999	6	Balance of county Logan Bellefontaine Balance of county		091	5	0000	99999 05130 99999
	047	059	1	003 007 046 073 096 137 999	6644669	Lorain Amherst Avon Lake Elyria Lorain North Ridgeville Vermilion, part Balance of county		093	2	1680	01798 03464 25256 44856 56966 79716 99999
	048	282	1	082 101 127 130 999	6 6 6 2 9	Lucas Maumee Oregon Sylvania Toledo Balance of county		095	2	8400	48342 58730 76022 77000 99999
	049 050	064 309	1	999 002 026 126 153 999	9 6 6 6 4 9	Madison Mahoning Alliance, part Campbell Struthers Youngstown, part Balance of county		097 099	5 2	1840 9320	01420 11066 75126 88000 99999
	051	000	2	079 999	5 9	Marion Marion Balance of county		101	4	0000	47754 99999
	052	059	1	023 084 138 999	5 6 6 9	Medina Brunswick Medina Wadsworth Balance of county		103	3	1680	09680 48790 80304 99999
	053 054 055	000 000 070	2 2 1	999 999 065 107 131 999	99 5669	Meigs Mercer Miami Huber Heights, part Piqua Troy Balance of county		105 107 109	6 5 4	0000 0000 2000	36610 62848 77588 99999
	056 057	000 070	2	999 028 038 047 065 068 086	9 636546	Monroe Montgomery Centerville Dayton Englewood Huber Heights, part Kettering Miamisburg		111 113	6 1	0000 2000	13190 21000 25396 36610 40040 49434

Vital	Statistics	Geographic	Code	Outline	For	The	United	States	Page	83
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		Statis								Codes	
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
36						Ohio	39				
	083			0.71	_	Warren, con.		165	3	1640	10061
				071 080	6 6	Lebanon					42364 48188
				088	5	Mason Middletown, part					49840
				999	9	Balance of county					99999
	084	211	1			Washington		167	4	6020	
				078	6	Marietta					47628
	005	000	2	999	9	Balance of county		1.00	2	0000	99999
	085	000	2	098	6	Wayne Norton, part		169	3	0000	57260
				150	6	Wooster					86548
				999	9	Balance of county					99999
	086	000	2	999	9	Williams		171	5	0000	
	087	282	1	010	_	Wood		173	3	8400	07070
				018 054	5 6	Bowling Green Fostoria, part					07972 28014
				106	6	Perrysburg					62148
				999	9	Balance of county					99999
	880	000	2	999	9	Wyandot		175	6	0000	

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St C		Statis P/MSA				Area Names				Codes P/MSA	Place
37	042					Oklahoma Logan, con.	40	083	5	5880	
	043	000	2	999 999	9 9	Balance of county Love		085	6	0000	99999
	044	204	ĺ			McClain		087	6	5880	
				025 999	2 9	Oklahoma City, part Balance of county					55000 99999
	045	000	2	999	9	McCurtain		089	5	0000	
	046 047	000 000	2	999 999	9	McIntosh Major		091 093	6 6	0000 0000	
	048	000	2 2 2 2	999	9	Marshall		095	6	0000	
	049 050	000 000	2	999 999	9	Mayes Murray		097 099	5 6	0000 0000	
	051	000	2	000	_	Muskogee		101	4	0000	F00F0
				022 999	5 9	Muskogee Balance of county					50050 99999
	052 053	000	2	999 999	9 9 9	Noble		103 105	6 6	0000 0000	
	053	000 000	2 2 2 1	999	9	Nowata Okfuskee		103	6	0000	
	055	204	1	005	6	Oklahoma Bethany		109	1	5880	05700
				009	6	Del City					19900
				012 020	4 4	Edmond Midwest City					23200 48350
				025	2	Oklahoma City, part					55000
				034 999	6 9	The Village Balance of county					73250 99999
	056	000	2			Okmulgee		111	5	0000	
				026 999	6 9	Okmulgee Balance of county					55150 99999
	057	286	1			Osage		113	5	8560	
				004 029	5 6	Bartlesville, part Sand Springs, part					04450 65300
				035 999	2 9	Tulsa, part					75000 99999
	058	000	2			Balance of county Ottawa		115	5	0000	
				019 999	6 9	Miami Balance of county					48000 99999
	059	000	2	999	9	Pawnee		117	6	0000	22222
	060	000	2	032	5	Payne Stillwater		119	4	0000	70300
			_	999	9	Balance of county			_		99999
	061	000	2	018	6	Pittsburg McAlester		121	5	0000	44800
	0.60	0.00	0	999	9	Balance of county		100	_	0000	99999
	062	000	2	001	6	Pontotoc Ada		123	5	0000	00200
	063	204	1	999	9	Balance of county Pottawatomie		125	4	5880	99999
	003	204	1	025	2	Oklahoma City, part		123	4	3000	55000
				031 999	5 a	Shawnee Balance of county					66800 99999
	064	000	2	999	2 5 9 9	Pushmataha		127	6	0000	22222
	065 066	000 286	2 1	999	9	Roger Mills Rogers		129 131	6 4	0000 8560	
	000	200	_	800	6	Člaremore		131	-	0300	14700
	067	000	2	999 999	9 9	Balance of county Seminole		133	5	0000	99999
	068	100	1	999	9	Sequoyah		135	5	2720	
	069	000	2	010	6	Stephens Duncan		137	5	0000	21900
	070	000	2	999 999	9 9	Balance of county Texas		120	6	0000	99999
	070	000	2 2	999	9	Tillman		139 141	6	0000	
	072	286	1	006	1	Tulsa Broken Arrow, part		143	1	8560	09050
				027	4 6	Owasso					56650
				029 035	6 2	Sand Springs, part Tulsa, part					65300 75000
				035	2	Tulsa, part					75000
	073	286	1	999	9	Balance of county Wagoner		145	5	8560	99999
	-	-		006	4	Broken Arrow, part		-	-		09050
	074	000	2	999	9	Balance of county Washington		147	5	0000	99999
				004	5	Bartľesville, part					04450

		Vital	Stat	isti	cs Geographic Code Outline For Effective With 1998 Data.	The	United S	States	3	Pag	e 86
Vital St Cnty	Stati	stics	Code	3	Area Names			FI	PS (Codes P/MSA	Place
37 074			999	9	Oklahoma Washington, con. Balance of county		40	147	5	0000	99999
075 076 077	000 000 000	2 2 2	999	9	Washita Woods Woodward			149 151 153	6 6	0000 0000 0000	
			037 999	6 9	Woodward Balance of county						82150 99999

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St C		Statis P/MSA				Area Names			PS C P/S	odes P/MSA	Place
38	001	000	2	999	9	Oregon Baker	41	001	6	0000	
	002	000	2	001 008	5 5	Benton Albany, part Corvallis		003	4	0000	01000 15800
	003	220	1	999	9	Balance of county Clackamas		005	2	6440	99999
	003	220	_	011 019	6 5	Gladstone Lake Oswego, part		003	2	0110	29000 40550
				023 025	6	Milwaukie, part Oregon City					48650 55200
				027 032	2 6	Portland, part Tualatin, part					59000 74950
				033	6	West Linn Balance of county					80150 99999
	004	000	2	003	6	Clatsop Astoria		007	5	0000	03150
	005	220	1	999 999	9 9	Balance of county Columbia		009	5	6440	99999
	006	000	2	007	6	Coos Coos Bay		011	4	0000	15250
	007	000	2	999 999	9	Balance of county Crook		013	6	0000	99999
	008 009	000 000	2 2	999	9	Curry Deschutes		015 017	6 4	$0000 \\ 0000$	05000
	010	000	0	005 999	6 9	Bend Balance of county		010	4	0000	05800 99999
	010	000	2	028 999	6	Douglas Roseburg		019	4	0000	63650
	011 012	000	2	999 999 999	9 9 9	Balance of county Gilliam Grant		021 023	6 6	0000	99999
	013 014	000	2 2	999 999	9	Harney Hood River		025 027	6	0000	
	015	176	1	002	6	Jackson Ashland		029	3	4890	03050
				022 999	5 9	Medford Balance of county					47000 99999
	016 017	000	2 2	999	9	Jefferson Josephine		031 033	6 4	0000	
				012 999	6 9	Grants Pass Balance of county					30550 99999
	018	000	2	017	6	Klamath Klamath Falls		035	4	0000	39700
	019	000	2	999 999	9 9	Balance of county Lake		037	6	0000	99999
	020	088	1	009	3	Lane Eugene		039	2	2400	23850
	021	000	2	030 999 999	5 9 9	Springfield Balance of county Lincoln		041	5	0000	69600 99999
	021	000	2	001		Linn Albany, part		041	4	0000	01000
				020	5 6 9	Lebanon Balance of county					41650 99999
	023 024	000 244	2 1	999	9	Malheur Marion		045 047	5 3	0000 7080	
				016 029	6 3	Keizer Salem, part					38500 64900
				034 999	6 9	Woodburn Balance of county					83750 99999
	025 026	000 220	2 1	999	9	Morrow Multnomah		049 051	6 1	0000 6440	
				013 019	4 5	Gresham Lake Oswego, part					31250 40550
				023 027	6	Milwaukie, part Portland, part					48650 59000
	027	244	1	999	9	Balance of county Polk		053	5	7080	99999
	028	000	2	029 999 999	3 9 9	Salem, part Balance of county Sherman		055	6	0000	64900 99999
	029	000	2 2	999	9	Tillamook Umatilla		057 059	6 4	0000	
	550	500		014	6	Hermiston		337	•	5500	33700

		7	Vital	Stat	istic	s Geographic Code Outline For The Effective With 1998 Data.	United :	States	3	Pag	e 88
St		Statis P/MSA				Area Names	St			Codes P/MSA	Place
38	030			026	6	Oregon Umatilla, con. Pendleton	41	059	4	0000	57150
	031	000	2	999	9	Balance of county Union		061	6	0000	99999
	032	000	2	018 999 999	6 9 9	La Grande Balance of county Wallowa		063	6	0000	40350 99999
	033	000	2	006	6	Wasco City of the Dalles		065	6	0000	13425
	034	220	1	999	9	Balance of county Washington Beaverton		067	2	6440	99999 05350
				010 015 019 027 031 032 999	6552569	Forest Grove Hillsboro Lake Oswego, part Portland, part Tigard Tualatin, part Balance of county					26200 34100 40550 59000 73650 74950 99999
	035 036	000 220	2 1	999	9	Wheeler Yamhill		069 071	6 4	0000 6440	
				021 024 999	6 6 9	McMinnville Newberg Balance of county					45000 52100 99999

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St		Statis P/MSA				Area Names				Codes P/MSA	Place
39	001	000	2	999	9	Pennsylvania Adams	42	001	4	0000	
	002	217	1		_	Allegheny		003	Ō	6280	02000
				006 010	6 5	Baldwin borough Bethel Park borough					03928 06064
				014	6	Brentwood borough					08416
				036	6	Franklin Park borough					27552
				041 065	6 5	Harrison Township McCandless Township					32868 45904
				066	5	McKeesport					46256
				074 076	5	Mount Lebanon Munhall borough					51704 52320
				077	5	Municipality of Monroeville borough	1				52330
				088 091	6 4	North Versailles Penn Hills					55496 59040
				094	2 5	Pittsburgh					61000
				095 102	5	Plum borough Ross Township					61536 66356
				105	5 5 6	Shaler Township					69596
				107 118	6	South Park Township Swissvale borough					72403 75816
				129	6	Upper St. Clair					79312
				137 139	6 6	West Mifflin borough Whitehall borough					83512 84512
				144 999	6 9	Wilkinsburg borough					85188 99999
	003	000	2	999	9	Balance of county Armstrong		005	4	0000	22222
	004	217	1	002	6	Beaver Aliquippa		007	3	6280	00820
				007	6	Beaver Falls					04792
	005	000	2	999 999	9 9	Balance of county Bedford		009	5	0000	99999
	006	228	ī			Berks		011	2	6680	
				075 100	6 4	Muhlenberg township Reading					52200 63624
				113	6	Spring township					72824
	007	800	1	999	9	Balance of county Blair		013	3	0280	99999
				004 999	4 9	Altoona					02184 99999
	008	000	2	999	9	Balance of county Bradford		015	4	0000	22222
	009	214	1	008	4	Bucks Bensalem township		017	1	6160	05616
				015	6	Bristol borough					08760
				016 035	4 5	Bristol township Falls township					08768 25112
				059	5	Lower Makefield township					44968
				064 071	6 5	Lower Southampton township Middletown township					45112 49120
				084	5 6	Newtown township					54192
				086 130	5 6	Northampton township Upper Southampton township					54688 79296
				132	5	Warminster township					80952
	010	217	1	999	9	Balance of county Butler		019	3	6280	99999
				017 999	6 9	Butler					10464 99999
	011	141	1	999	9	Balance of county Cambria		021	3	3680	
				050 999	5 9	Johnstown Balance of county					38288 99999
	012	000	2	999	9	Cameron		023	6	0000	22222
	013 014	007 272	1 1	999	9	Carbon Centre		025 027	4	0240 8050	
	011	2,2	_	114	5	State College borough		027	3	0050	73808
	015	214	1	999	9	Balance of county Chester		029	2	6160	99999
				018 024	6 6	Caln township Coatesville					10824 14712
				028	6	East Goshen township					21192
				093 120	6 5	Phoenixville borough Tredyffrin township					60120 77344
				131	6	Uwchlan township					79480
				135 136	6 6	West Chester borough West Goshen township					82704 83080
				999	ğ	Balance of county					99999

Vital Statistics Geographic Code Outline For The United States Pa Effective With 1998 Data. FIPS Codes Page 90 Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names St Cnty P/S P/MSA Place Pennsylvania 2 2 2 Clarion Clearfield 4 Clinton 4 Columbia Berwick borough
Bloomsburg
Balance of county Crawford Meadville 9 Meadville
Balance of county
Cumberland
Carlisle borough
East Pennsboro township
Hampden township
Lower Allen township
Upper Allen township 021 121 041 3 Lower Allen townsing Balance of county whin 122 Dauphin Harrisburg 022 121 043 3 Lower Paxton township Susquehanna township Swatara township Balance of county 75528 117 Delaware 023 214 045 1 Aston township Aston township
Chester
Darby borough
Haverford township
Lansdowne borough
Marple township
Middletown township 026 Nether Providence Township 54224 Nether Providence Township
Newtown township
Radnor Township
Ridley township
Springfield
Upper Chichester township
Upper Darby township
Voaden berough 099 64800 73040 110 Yeadon borough Balance of county 025 049 Elk Erie Erie Millcreek township Balance of county Fayette Uniontown Balance of county Forest Franklin 028 055 Chambersburg borough Balance of county Fulton 5 4 Greene Huntingdon Indiana
Indiana borough
Balance of county 067 Jefferson 6 3 035 7560 Juniata Lackawanna Carbondale 104 Dunmore borough Scranton
Balance of county
Lancaster 036 155 071 2 Columbia borough Ephrata borough Ephrata Dolough Lancaster Lancaster township Manheim township Balance of county 067 5 9

Lawrence

New Castle

081 5

Vital Statistics Codes St Cnty P/MSA M/NM City P/S Area Names FIPS Codes St Cnty P/S P/MSA Place Pennsylvania Pennsylvania
Lawrence, con.
Balance of county 073 4 999 9 038 121 Lebanon Lebanon 056 6 999 9 Lehigh
Allentown
Bethlehem, part
Emmaus borough
Salisbury township
South Whitehall township
Whitehall township
Balance of county
Luzerne
Hazleton
Kingston borough Balance of county 039 007 077 2 032 67576 84528 040 259 079 2 079 Nanticoke Wilkes-Barre Balance of county Lycoming
Williamsport
Balance of county
McKean
Mercer 041 303 1 Hermitage Sharon Balance of county Balanc Mifflin Monroe Montgome Abingt Mifflin
Monroe
Montgomery
Abington township
Cheltenham township
East Norriton
Hatfield township
Horsham township
Lower Merion township
Lower Merion township
Lower Providence township
Montgomery township
Norristown borough
Plymouth township
Pottstown borough
Springfield township
Towamencin township
Upper Dublin township
Upper Gwynedd township
Upper Gwynedd township
Upper Merion township
Upper Moreland township
West Norriton
Whitemarsh township
Whitpain township
Balance of county 029 042 047 054 21608 35808 6 6 4 Lower Providence township 79056 127 128 138 79176 83704 Balance of
Montour
Northampton Balance of county Bethlehem, part Bethlehem township 030 Easton
Palmer township Balance of county Northumberland 097 4 Sunbury Balance of county Perry 099 Philadelphia, coext. with Philadelphia c 101 052 1 2 2 Ó Õ Pike Potter Schuylkill Pottsville Balance of county 056 057 058 Snyder 4 6 5 Somerset 0000 113 Sullivan Susquehanna

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	Statis P/MSA				Area Names	St			Codes P/MSA	Place
39 059 060 061	000 000 000	2 2 2	999 999 089	9 9 6	Pennsylvania Tioga Union Venango	42	117 119 121	5 5 4	0000 0000 0000	56456
062	000	2	999	9	Oil City Balance of county Warren Warren		123	5	0000	99999
063	217	1	999 134	9	Balance of county Washington Washington		125	3	6280	99999
064 065	000 217	2 1	999 999 037	9 9 6	Balance of county Wayne Westmoreland Greensburg		127 129	5 2	0000 6280	99999 31200
066	259	1	045 049 058 078 082 087 999	056666599	Hempfield township Jeannette Lower Burrell Municipality of Murrysville borough New Kensington North Huntingdon township Balance of county Wyoming	L	131	5	7560	33792 337784 44864 52332 53736 55128 99999
067	308	1	039 109 112 147 999	6 6 5 9	York Hanover borough Springettsbury township Spring Garden township York Balance of county		133	2	9280	32448 72992 73168 87048 99999

	Statis P/MSA				Area Names	St			Codes P/MSA	Place
40			0101	-,5	Rhode Island	44	_			11400
001	221	1	001 002 015 999	6 6 6 9	Bristol Barrington Bristol Warren town Balance of county		001	5	6483	04960 09460 73760 99999
002	221	1	004 016 999	5 4 9	Kent Coventry town Warwick Balance of county		003	3	6483	18640 74300 99999
003	000	2	009 011 999	6 5 9	Newport Middletown town Newport Balance of county		005	4	0000	45460 49960 99999
004	221	1	003 005 006 007 008 012 013 014 017 999	6454554359	Providence Central Falls Cranston Cumberland town East Providence Johnston town North Providence Pawtucket Providence Woonsocket Balance of county		007	1	6483	14140 19180 20080 22960 37720 51940 54640 59000 89780 99999
005	221	1	010 999	6 9	Washington Narragansett town Balance of county		009	3	6483	48340 99999

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St		Statis				Area Names	St			Codes P/MSA	Place
	CITCY	1 / 1.1011	1.1/ 141.1	CICY	1/5			CITCY	1/0	1 / 1-10/11	TTACC
41						South Carolina	45				
	035	000	2			Marlboro		069	5	0000	
				003	6	Bennettsville					05680
				999	9	Balance of county					99999
	036	000	2			Newberry		071	5	0000	
				021	6	Newberry					49570
				999	9	Balance of county					99999
	037	000	2	999	9	Oconee		073	4	0000	
	038	000	2			Orangeburg		075	4	0000	
				024	6	Orangeburg					53080
				999	9	Balance of county					99999
	039	118	1			Pickens		077	4	3160	
				006	6	Clemson, part					14950
				008	6	Easley					21985
				999	9	Balance of county					99999
	040	062	1			Richland		079	2	1760	
				007	4	Columbia					16000
				017	6	Irmo, part					35890
				999	9	Balance of county					99999
	041	000	2	999	9	Saluda		081	6	0000	
	042	118	1			Spartanburg		083	3	3160	
				014	6	Greer, part					30985
				027	5	Spartanburg					68290
				999	9	Balance of county					99999
	043	275	1			Sumter		085	3	8140	
				029	5	Sumter					70405
				999	9	Balance of county					99999
	044	000	2	999	9	Union		087	5	0000	
	045	000	2	999	9	Williamsburg		089	5	0000	
	046	051	1			York		091	3	1520	
				025	5	Rock Hill					61405
				999	9	Balance of county					99999

Vital	Statistics	Geographic	Code	Outline	For	The	United	States	Page	97
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7	<i>I</i> ital	Statis	stics	Codes	3			FI	IPS (Codes	
						Area Names	42			P/MSA	Place
טכ	CITCY	E / MDA	1.1/ 141.1	CICY	E/D	AICA NAMICS	DC	CITCY	F / D	F / MDA	Fiacc
42						South Dakota	46				
	055	000	2	999	9	Sanborn		111	6	0000	
	056	000	2	999	9	Shannon		113	6	0000	
	057	000	วี	999	9	Spink		115	6	0000	
			2								
	058	000	2	999	9	Stanley		117	6	0000	
	059	000	2	999	9	Sully		119	6	0000	
	060	000	2	999	9	Todd		121	6	0000	
	061	000	2	999	9	Tripp		123	6	0000	
	062	000	2	999	9	Turner		125	6	0000	
	063	000	2	999	9	Union		127	6	0000	
	064	000	2	999	9	Walworth		129	6	0000	
	065	000	2		_	Yankton		135	6	0000	
	005	000	2	010	6	Yankton		133	O	0000	73060
				999	9	Balance of county					99999
	066	000	2	999	9	Ziebach		137	6	0000	

7.7		Q+_+:		O = 4] =	_	Effective With 1998 Data.			Da a		
		Stati:				Area Names	St		PS C	odes P/MSA	Place
43	circy	1 / 1/10/1	1.1/ 141.1	CICY	1/5		47	Circy	1/5	1 / 1/1021	racc
43	001	148	1			Tennessee Anderson	4 /	001	4	3840	
	001	110	_	035	5	Oak Ridge, part		001	-	3010	55120
			_	999	9	Balance of county			_		99999
	002	000	2	027	_	Bedford		003	5	0000	67760
				037 999	6 9	Shelbyville Balance of county					67760 99999
	003	000	2	999	9	Benton		005	6	0000	
	004	000	2	999	9	Bledsoe		007	6	0000	
	005	148	1	0.00	_	Blount		009	4	3840	46200
				029 999	6 9	Maryville Balance of county					46380 99999
	006	000	2	222	J	Bradley		011	4	0000	2222
				800	5	Cleveland					15400
	000	0.00	0	999	5 9 9	Balance of county		010	_	0000	99999
	007 008	000 000	2 2 2	999 999	9	Campbell Cannon		013 015	5 6	0000	
	009	000	2	999	9	Carroll		017	5	0000	
	010	140	ī			Carter		019	4	3660	
				014	6	Elizabethton					23500
				023 999	5 9	Johnson City, part					38320 99999
	011	192	1	999	9	Balance of county Cheatham		021	5	5360	99999
	012	000	2	999	9	Chester		023	5 6	0000	
	013	000	2 2	999	9	Claiborne		025	5	0000	
	014	000	2 2	999	9	Clay		027	6	0000	
	015 016	000 000	2	999	9	Cocke Coffee		029 031	5 5	0000	
	010	000	-	040	6	Tullahoma, part		031	9	0000	75320
			_	999	9 9	Balance of county			_		99999
	017 018	000 000	2	999 999	9	Crockett Cumberland		033 035	6 5	0000	
	019	192	1	999	9	Davidson		035	1	5360	
	010	172	_	019	6	Goodlettsville, part		037	_	3300	29920
				034	2	Nashville-Davidson					52010
	020	000	2	999 999	9 9	Balance of county		039	6	0000	99999
	020	000	2 2	999	9	Decatur De Kalb		039	6 6	0000	
	022	192	1	999	9	Dickson		043	5	5360	
	023	000	2		_	Dyer		045	5	0000	
				012 999	6 9	Dyersburg					22200 99999
	024	178	1	999	9	Balance of county Fayette		047	5	4920	99999
	025	000	2	999	9	Fentress		049	6	0000	
	026	000	2	0.40	_	Franklin		051	5	0000	
				040 999	6 9	Tullahoma, part Balance of county					75320 99999
	027	000	2	999	9	Gibson		053	5	0000	2222
	028	000	2 2	999	9	Giles		055	5 5	0000	
	029	000	2	999	9	Grainger		057	6	0000	
	030	000	2	020	6	Greene Greeneville		059	4	0000	30980
				999	9	Balance of county					99999
	031	000	2	999	9	Grundy		061	6	0000	
	032	000	2	032	6	Hamblen Morristown		063	4	0000	E0200
				999	9	Balance of county					50280 99999
	033	053	1			Hamilton		065	2	1560	
				006	3	Chattanooga					14000
				013 036	6 6	East Ridge Red Bank					22720 61960
				999	9	Balance of county					99999
	034	000	2	999	9	Hancock		067	6	0000	
	035	000	2 2	999	9	Hardeman		069	6	0000	
	036 037	000 140	2 1	999	9	Hardin Hawkins		071 073	6 5	0000	
	037	140	Т	024	5	Kingsport, part		0/3	5	3660	39560
				999	9	Balance of county					99999
	038	000	2	005	_	Haywood		075	6	0000	00000
				005 999	6 9	Brownsville Balance of county					08920 99999
	039	000	2	999	9	Henderson		077	6	0000	シンシフフ
	040	000	2	999	9	Henry		079	5	0000	
	041 042	000 000	2	999 999	9	Hickman Houston		081 083	6 6	0000	
	012	000	4	シシラ	J	11045 COII		003	U	0000	

Vital Statistics Geographic Code Outline For The United States Page 99
Effective With 1998 Data. Vital Statistics Codes

	24.1	Q+ - +		a - 1 -		Effective With 1998 Data.			D.C. C		
St		Statis P/MSA				Area Names				odes P/MSA	Place
43	043 044 045 046 047	000 000 000 000 148	2 2 2 2 1	999 999 999	9 9 9 9	Tennessee Humphreys Jackson Jefferson Johnson Knox	47	085 087 089 091 093	6 5 6 2	0000 0000 0000 0000 3840	
	048 049 050	000 000 000	2 2 2	015 025 999 999	63999	Farragut, part Knoxville Balance of county Lake Lauderdale Lawrence		095 097 099	6 6 5	0000 0000 0000	25760 40000 99999
	051 052 053	000 000 148	2 2 1	026 999 999 999	6 9 9 9	Lawrenceburg Balance of county Lewis Lincoln Loudon Farragut, part		101 103 105	6 5 5	0000 0000 3840	41340 99999 25760
	054	000	2	999	9	Balance of county McMinn Athens		107	5	0000	99999
	055 056 057	000 000 134	2 2 1	999 999 999	9 9 9	Balance of county McNairy Macon Madison		109 111 113	6 6 4	0000 0000 3580	99999 37640
	058 059 060	053 000 000	1 2 2	999 999 999	9 9 9	Jackson Balance of county Marion Marshall Maury Columbia		115 117 119	6 6 4	1560 0000 0000	16540
	061 062 063	000 000 058	2 2 1	999 999 999	9 9 9	Balance of county Meigs Monroe Montgomery Clarksville		121 123 125	6 5 3	0000 0000 1660	15160
	064 065 066	000 000 000	2 2 2	999 999 999	9 9 9	Balance of county Moore Morgan Obion Union City		127 129 131	6 6 5	0000 0000 0000	75940
	067 068 069 070 071	000 000 000 000 000	2 2 2 2 2	999 999 999 999	9999	Balance of county Overton Perry Pickett Polk Putnam		133 135 137 139 141	6 6 6 4	0000 0000 0000 0000 0000	99999
	072 073	000	2 2	011 999 999	6 9 9	Cookeville Balance of county Rhea Roane		143 145	6 5	0000	16920 99999 55120
	074	192	1	999	9 6	Oak Ridge, part Balance of county Robertson Springfield		147	5	5360	99999 70500
	075	192	1	999 033 038	9 5 6	Balance of county Rutherford Murfreesboro Smyrna		149	3	5360	99999 51560 69420
	076 077 078 079	000 000 148 178	2 2 1 1	999 999 999 999	9 9 9 9	Balance of county Scott Sequatchie Sevier Shelby Bartlett		151 153 155 157	6 6 4 1	0000 0000 3840 4920	99999 03440
	080 081 082	000 000 140	2 2 1	009 018 030 031 999 999	6516999	Collierville Germantown Memphis Millington Balance of county Smith Stewart Sullivan		159 161 163	6 6 3	0000 0000 3660	16420 28960 48000 49060 99999
				004 023	6 5	Bristol Johnson City, part					08540 38320

Vital Statistics Geographic Code Outline For The United States Page 100 Effective With 1998 Data.

						Effective With 1998 Data.					
		Statis								Codes	
St Cnt	y E	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
43 08	2					Tennessee Sullivan, con.	47	163	3	3660	
0.0		100	_	024 999	5 9	Kingsport, part Balance of county		1.65	_	5260	39560 99999
08	3	192	1	017 019 021 999	6 6 5 9	Sumner Gallatin Goodlettsville, part Hendersonville Balance of county		165	3	5360	28540 29920 33280 99999
08 08 08 08	5 6 7	178 000 140 148 000	1 2 1 1 2	999 999 999 999	99999	Tipton Trousdale Unicoi Union Van Buren		167 169 171 173 175	56666	4920 0000 3660 3840 0000	
08	19	000	2	028 999	6	Warren McMinnville Balance of county		177	5	0000	45100 99999
09	0	140	1	023 999	5 9	Washington Johnson City, part Balance of county		179	4	3660	38320 99999
09 09 09 09	2	000 000 000 192	2 2 2 1	999 999 999	9 9 9	Wayne Weakley White Williamson		181 183 185 187	6 5 6 4	0000 0000 0000 5360	
				003 016 999	6 6 9	Brentwood Franklin Balance of county			_		08280 27740 9999
09	15	192	1	027 999	6 9	Wilson Lebanon Balance of county		189	4	5360	41520 99999

Vital Statistics Geographic Code Outline For The United States Page 101
Effective With 1998 Data

				~ 1	1001	Effective With 1998 Data.	onreca			- 1	C 101
St C		Statis P/MSA				Area Names		t Cnty	IPS (P/S	Codes P/MSA	Place
44	001	000	2	116	6	Texas Anderson Palestine	4	8 001	5	0000	54708
	002	000	2	999	9 6	Balance of county Andrews Andrews		003	6	0000	99999 03216
	003	000	2	999	9	Balance of county Angelina		005	4	0000	99999
	004	000	2	098 999 999	5 9 9	Lufkin Balance of county Aransas		007		0000	45072 99999
	005	302	1	171 999	4 9	Archer Wichita Falls, part Balance of county		009		9080	79000 99999
	006 007 008	000 000 000	2 2 2	999 999 999	9 9	Armstrong Atascosa Austin		011 013 015	5 6	0000 0000 0000	
	009 010 011	000 000 019	2 2 2 2 1 2	999 999 999	9	Bailey Bandera Bastrop		017 019 021	6 5	0000 0000 0640	
	012 013	000	2	999 016	9 6	Baylor Bee Beeville		023 025		0000	07192
	014	147	1	999 018	9	Balance of county Bell Belton		027	3	3810	99999 07492
	015	0.40	1	071 084 152 999	6 4 5 9	Harker Heights Killeen Temple Balance of county		0.00	0	5040	32312 39148 72176 99999
	015	248	1	095 137 141 158 999	6 1 6 6	Bexar Live Oak San Antonio Schertz, part Universal City		029	0	7240	43096 65000 66128 74408
	016 017 018 019	000 000 000 281	2 2 2 1	999 999 999	9 9 9	Balance of county Blanco Borden Bosque Bowie		031 033 035 037	6 6	0000 0000 0000 8360	99999
	020	039	1	154 999	5 9	Texarkana Balance of county Brazoria		039	3	1145	72368 99999
	020	033	-	004 007 058 086 120 999	6 6 6 6 6 9	Alvin Angleton Freeport Lake Jackson Pearland, part Balance of county		033	3	1113	02272 03264 27420 40588 56348 99999
	021	042	1	025 032	4 4	Brazos Bryan College Station		041	3	1260	10912 15976
	022 023 024 025	000 000 000 000	2 2 2 2	999 999 999	9 9 9	Balance of county Brewster Briscoe Brooks Brown		043 045 047 049	6	0000 0000 0000 0000	99999
	026 027	000	2 2 1	024 999 999 999	6 9 9	Brownwood Balance of county Burleson Burnet		051 053 055	6	0000	10780 99999
	028	019		140 999	5 9	Caldwell San Marcos, part Balance of county				0640	65600 99999
	029	000	2	127 999	6	Calhoun Port Lavaca Balance of county		057		0000	58916 99999
	030 031	000 041	2	999 023 072 138 999	9 4 5 6 9	Callahan Cameron Brownsville Harlingen San Benito		059 061		0000 1240	10768 32372 65036
	032 033	000	2 2	999 999 999	9	Balance of county Camp Carson		063 065		0000	99999

		V .	ILAI	Stat	ISCIC	Effective With 1998 Data.	III Lea	states		Pag	E 102
St (ital Cnty	Statis P/MSA I	tics M/NM	Code City	s P/S	Area Names	St 48			odes P/MSA	Place
44	034 035 036	000 000 127	2 2 1	999 999	9	Texas Cass Castro Chambers	48	067 069 071	5 6 6	0000 0000 3360	
	037	000	2	013 999 080	4 9 6	Baytown, part Balance of county Cherokee Jacksonville		073	5	0000	06128 99999 37216
	038 039 040 041 042 043	000 000 000 000 000 067	2 2 2 2 2 1	999 999 999 999 999	999999	Balance of county Childress Clay Cochran Coke Coleman Collin		075 077 079 081 083 085	666662	0000 0000 0000 0000 0000 1920	99999
			_	003 029 039 063 100 124 129 999	6 4 0 3 6 3 4 9	Allen Carrollton, part Dallas, part Garland, part McKinney Plano, part Richardson, part Balance of county			_	1710	01924 13024 19000 29000 45744 58016 61796 99999
	044 045 046	000 000 248	2 2 1	999 999 112 141	9 9 5 6	Collingsworth Colorado Comal New Braunfels, part		087 089 091	6 6 4	0000 0000 7240	50820 66128
	047 048 049	000 000 000	2 2 2	999 999 999	9 9 9	Schertz, part Balance of county Comanche Concho Cooke		093 095 097	6 6 5	0000 0000 0000	99999
	050	147	1	060 999 036	6 9 6	Gainesville Balance of county Coryell Copperas Cove, part		099	4	3810	27984 99999 16624
	051 052 053 054 055	000 000 000 000 000	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	064 999 999 999 999 999	69999999	Gatesville Balance of county Cottle Crane Crockett Crosby Culberson Dallam		101 103 105 107 109	6666666	0000 0000 0000 0000 0000	29168 99999
	057	067	2	011 029 0330 0344 047 0543 0667 079 0894 11359 099	6466055634536534669	Dallas Balch Springs Carrollton, part Cedar Hill, part Coppell, part Dallas, part DeSoto Duncanville Farmers Branch Garland, part Grand Prairie, part Grapevine, part Irving Lancaster Lewisville, part Mesquite Richardson, part Rowlett, part University Park Balance of county Dawson		113	6	0000	05372 13024 13492 16612 19000 20092 21628 25452 29900 30464 37000 41212 47892 61796 634792 99999
	059	000	2	088 999 074	6 9 6	Lamesa Balance of county Deaf Smith		117	6	0000	41164 99999
	060 061	000 067	2	074 999 999 029 035 039	9 9 4 6 0	Hereford Balance of county Delta Denton Carrollton, part Coppell, part Dallas, part		119 121	6 2	0000 1920	33320 99999 13024 16612 19000

						Effective With 1998 Data.	ine onic	ed States	•	Pag	= 103
		Statis P/MSA				Area Names		FI St Cnty	PS C P/S		Place
44	0.61					Texas		48	0	1000	
	061			043 055 057 067 094 124 156 999	46255369	Denton, con. Denton Flower Mound, part Fort Worth, part Grapevine, part Lewisville, part Plano, part The Colony		121	2	1920	19972 26232 27000 30644 42508 58016 72530 99999
	062 063 064 065 066 067 068	000 000 000 000 000 000 203	2 2 2 2 2 2 1	9999 9999 9999 9999 114	9999999 4	Balance of county De Witt Dickens Dimmit Donley Duval Eastland Ector Odessa, part		123 125 127 129 131 133 135	6 6 6 6 6 6 6 3	0000 0000 0000 0000 0000 0000 5800	53388
	069 070	000 067	2 1	999 999 030	9 9	Balance of county Edwards Ellis Cedar Hill, part		137 139	6 4	0000 1920	13492
	071	083	1	052 066 101 166 999	6 4 6 6 9	Ennis Grand Prairie, part Mansfield, part Waxahachie Balance of county El Paso		141	1	2320	24348 30464 46452 76816 99999
	071	063	1	051 145 999	1 6 9	El Paso Socorro Balance of county		141	T	2320	24000 68636 99999
	072	000	2	147	6	Erath Stephenville		143	5	0000	70208
	073 074 075 076 077 078 079	000 000 000 000 000 000 127	2 2 2 2 2 2 1	999 999 999 999 999	9999999	Balance of county Falls Fannin Fayette Fisher Floyd Foard Fort Bend		145 147 149 151 153 155 157	6666663	0000 0000 0000 0000 0000 0000 3360	99999
	080 081 082 083 084	000 000 000 000 107	2 2 2 2 1	075 108 130 133 148 999 999 999	0566699999	Houston, part Missouri City, part Richmond Rosenberg Sugar Land Balance of county Franklin Freestone Frio Gaines		159 161 163 165 167	66663	0000 0000 0000 0000 2920	35000 48804 61892 63284 70808 99999
				059 062 087 092 155 999	6 4 6 5 9	Galveston Friendswood, part Galveston La Marque League City, part Texas City Balance of county					27648 28068 41116 41980 72392 99999
	085 086 087 088 089 090	000 000 000 000 000	2 2 2 2 2 2	999 999 999 999	99999	Garza Gillespie Glasscock Goliad Gonzales Gray		169 171 173 175 177 179	666666	0000 0000 0000 0000 0000	
	091	263	1	117 999	6 9	Pampa Balance of county Grayson		181	4	7640	54912 99999
	000	167	1	042 143 999	6 5 9	Denison Sherman Balance of county		100	2	4400	19900 67496 99999
	092	167	1	083 096 999	6 4 9	Gregg Kilgore, part Longview, part Balance of county		183	3	4420	39124 43888 99999
	093	000	2	999	9	Grimes		185	6	0000	JJJJJ

					Effective With 1998 Data.	THE UNITE	eu s	tates		Pagi	= 104
				P/S							Place
094	248		112 141 142 999	5 6 6	Guadalupe New Braunfels, part Schertz, part Seguin		48	187	4	7240	50820 66128 66644 99999
095	000	2	123	6	Hale Plainview			189	5	0000	57980
096 097 098 099 100	000 000 000 000 025 127	2 2	999 999 999 999 999	999999	Hall Hamilton Hardeman Hardin Harris			191 193 195 197 199 201	6 6 6 6 5 0	0000 0000 0000 0000 0840 3360	99999
			013 017 040 059 061 076 099 119 0146 999	465660655536669	Baytown, part Bellaire Deer Park Friendswood, part Galena Park Houston, part Humble La Porte League City, part Missouri City, part Pasadena Pearland, part South Houston West University Place Balance of county						06128 07324 27648 27696 350348 41480 41980 41980 41980 56348 69020 79999
102	167	1	096 102 999	4 6 9	Harrison Longview, part Marshall Balance of county			203	4	4420	43888 46776 99999
103 104 105	000 000 019	2 2 1	999 140	9	Hartley Haskell Hays San Marcos, part			205 207 209	6 6 4	0000 0000 0640	65600
106 107	000 067	2	999 009	9 9 6	Balance of county Hemphill Henderson Athens			211 213	6 4	0000 1920	99999 04504
108	175		045 049 099 103 107 122 139 168	65465566	Balance of county Hidalgo Donna Edinburg McAllen Mercedes Mission Pharr San Juan Weslaco Balance of county			215	2	4880	99999 20884 226660 45384 47700 48768 57200 65516 77272 99999
109 110	000	2 2	999		Hill Hockley Levelland Balance of county			217 219	5 6	0000	42448 99999
111 112	103 000	1 2	999 149 999	9 6 9	Hood Hopkins Sulphur Springs Balance of county			221 223	5 5	2800 0000	70904 99999
113 114	000	2 2	999 020	9	Houston Howard Big Spring			225 227	6 5	0000	08236 99999
115 116	000 067	2	999 068	9	Hudspeth Hunt Greenville			229 231	6 4	0000 1920	30920 99999
117	000	2	021 999	6 9	Hutchinson Borger			233	5	0000	09556 99999
118 119 120	000 000 000	2 2 2	999 999 999	9	Irion Jack Jackson			235 237 239	6 6	0000 0000 0000	
	102 103 104 105 106 107 108 1112 113 114 115 116 117 118	102 167 103 000 104 000 105 019 106 000 107 067 108 175 109 000 111 103 112 000 114 000 115 000 116 067 117 000 118 000 119 000	tal Statistics P/MSA M/NM 094 248 1 095 000 2 096 000 2 097 000 2 098 000 2 099 000 2 100 025 1 101 127 1 103 000 2 104 000 2 105 019 1 108 175 1 109 000 2 111 103 1 100 000 2 111 103 1 112 000 2 113 000 2 114 000 2 115 000 2 116 067 1 117 000 2 118 000 2 119 000 2	tal Statistics Codes Cnty P/MSA M/NM City 094 248 1 095 000 2 123 096 000 2 999 097 000 2 999 098 000 2 999 100 025 1 999 101 127 1 013 017 045 096 102 167 1 096 102 167 1 096 102 167 1 096 103 000 2 199 104 000 2 199 105 019 1 140 999 106 000 2 1999 107 067 1 009 108 175 1 045 049 099 111 103 1 103 1 107 122 139 168 999 111 103 1 103 1 107 122 139 168 999 111 103 1 103 107 122 139 168 999 111 000 2 149 999 114 000 2 999 115 000 2 999 116 067 1 068 117 000 2 118 000 2 999 118 000 2 999 119 000 2 999 119 000 2 999 111 000 2 999 115 000 2 999 116 067 1 068 117 000 2 999 118 000 2 999 119 000 2 999 119 000 2 999 119 000 2	Catal Statistics Codes City P/S A M/NM City P/	Statistics Codes Codes	Statistics	Effective With 1998 Data. Statistics Codes Scare Names Statistics Cotype Scare Scare Statistics Cotype Scare Scare	tal Statistics Codes http: P/MSA M/NM (city P/S Area Names	tal Statistics Codes	Statistics Codes Effective With 1998 Data. Statistics Codes Codes

		~		~ 1	10010	Effective With 1998 Data.	JIII CCA			. ,	C 103
St (Statis P/MSA				Area Names	St 48	Cnty	IPS C P/S	odes P/MSA	Place
44	121 122 123	000 000 025	2 2 1	999 999	9	Texas Jasper Jeff Davis Jefferson	48	241 243 245	5 6 3	0000 0000 0840	07000
	124	000	2	014 069 111 125 128 999 999	3 6 6 4 6 9 9	Beaumont Groves Nederland Port Arthur Port Neches Balance of county Jim Hogg		247	6	0000	07000 31328 50580 58820 58940 99999
	125	000	2	002 999	6 9	Jim Wells Alice Balance of county		249	5	0000	01852 99999
	126	103	1	027 031 101 999	6 6 6 9	Johnson Burleson, part Cleburne Mansfield, part Balance of county		251	4	2800	11428 15364 46452 99999
	127	000	2	001 999	3	Jones Abilene, part Balance of county		253	6	0000	01000 99999
	128 129	000 067	2 1	999 039 153	9 0 6	Karnes Kaufman Dallas, part Terrell		255 257	6 4	0000 1920	19000 72284
	130 131 132 133	000 000 000 000	2 2 2 2	999 999 999 999	9 9 9 9	Balance of county Kendall Kenedy Kent Kerr Kerr Kerrville		259 261 263 265	6 6 5	0000 0000 0000 0000	99999 39040
	134 135 136 137	000 000 000 000	2 2 2 2	999 999 999 999	9999	Refiville Balance of county Kimble King Kinney Kleberg		267 269 271 273	6665	0000 0000 0000 0000	99999
	138 139	000	2 2	037 085 999 999	2 5 9 9	Corpus Christi, part Kingsville Balance of county Knox Lamar		275 277	6 5	0000	17000 39352 99999
	140 141	000	2 2	118 999 999	6 9 9	Paris Balance of county Lamb Lampasas Copperas Cove, part		279 281	6	0000	55080 99999 16624
	142 143 144 145 146 147 148 149 150	000 000 000 000 127 000 000 000	222222222222222222222222222222222222222	09999999999999999999999999999999999999	09999999999	Balance of county La Salle Lavaca Lee Leon Liberty Limestone Lipscomb Live Oak Llano Loving		283 285 287 289 2993 2995 2997 2991	6666466666	0000 0000 0000 0000 3360 0000 0000 0000	99999
	152 153 154 155	170 000 000 295	1 2 2 1	097 999 999 999	3 9 9 9	Lubbock Lubbock Balance of county Lynn McCulloch McLennan Waco		303 305 307 309	3 6 6 3	4600 0000 0000 8800	45000 99999 76000
	156 157 158 159	000 000 000 000	2 2 2 2	999 999 999 999	9 9 9 9 4	Macon Balance of county McMullen Madison Marion Martin Midland, part		311 313 315 317	6 6 6	0000 0000 0000 0000	48072
	160 161	000	2 2	999 999 012	9 9 6	Balance of county Mason Matagorda Bay City		319 321	6 5	0000	99999 05984

		V	ILAI	Stat	ISCIC	Effective With 1998 Data.	onicea s	lates		Pag	E 100
St (Statis P/MSA				Area Names				odes P/MSA	Place
44	161					Texas Matagorda, con.	48	321	5	0000	
	160	000	2	999	9	Balance of county		202	_	0000	99999
	162	000	4	048	6	Maverick Eagle Pass		323	5	0000	21892
	1.60	0.00	0	999	9	Balance of county		205	_	0000	99999
	163 164	000 000	2 2	999 999	9	Medina Menard		325 327	5 6	0000 0000	
	165	203	ī			Midland		329	3	5800	
				105 114	4 4	Midland, part Odessa, part					48072 53388
			_	999	9	Balance of county			_		99999
	166 167	000 000	2 2	999 999	9	Milam Mills		331 333	6 6	0000	
	168	000	2	999	9 9	Mitchell		335	6	0000	
	169 170	000 127	2 1	999	9	Montague Montgomery		337 339	6 3	0000 3360	
	170	127	_	034	5	Conroe		337	J	3300	16432
				075 999	0 9	Houston, part Balance of county					35000 99999
	171	000	2			Moore		341	6	0000	
				046 999	6	Dumas Balance of county					21556 99999
	172	000	2	999	9 9	Morris		343	6	0000	22222
	173 174	000 000	2	999	9	Motley		345 347	6 4	0000	
	1/ 1	000	4	110	5	Nacogdoches Nacogdoches		347	4	0000	50256
	175	000	2	999	9	Balance of county		349	_	0000	99999
	1/5	000	4	038	6	Navarro Corsicana		349	5	0000	17060
	176	000	2	999 999	9 9	Balance of county		251	_	0000	99999
	177	000 000	2 2	999	9	Newton Nolan		351 353	6 6	0000	
				150	6	Sweetwater					71540
	178	065	1	999	9	Balance of county Nueces		355	2	1880	99999
				037 126	2 6	Corpus Christi, part					17000
				131	6	Portland, part Robstown					58904 62600
	179	000	2	999 999	9 9 9	Balance of county		357	6	0000	99999
	180	000	2 2	999	9	Ochiltree Oldham		359	6 6	0000	
	181	025	1	115	6	Orange Orange		361	4	0840	54132
				163	6	Vidor					75476
	182	000	2	999	9	Balance of county Palo Pinto		363	5	0000	99999
	102	000	2	106	6	Mineral Wells, part		303	5	0000	48684
	183	000	2	999 999	9	Balance of county Panola		365	6	0000	99999
	184	103	ī			Parker		367	4	2800	
				106 167	6 6	Mineral Wells, part Weatherford					48684 76864
			_	999	9	Balance of county			_		99999
	185 186	000 000	2 2	999 999	9	Parmer Pecos		369 371	6 6	0000 0000	
	187	000	2	999	9	Polk		373	5	0000	
	188	009	1	005	3	Potter Amarillo, part		375	4	0320	03000
	100	0.00	0	999	9	Balance of county		277	_	0000	99999
	189 190	000 000	2 2	999 999	9 9	Presidio Rains		377 379	6 6	0000	
	191	009	1	005	2	Randall		381	4	0320	02000
				005 028	3 6	Amarillo, part Canyon					03000 12532
	192	000	2	999 999	9	Balance of county		383	6	0000	99999
	193	000	2 2	999	9	Reagan Real		385	6 6	0000	
	194 195	000	2	999	9	Red River Reeves		387 389	6 6	0000	
	エクン	000	4	121	6	Pecos		202	U	0000	56516
	196	000	2	999 999	9	Balance of county Refugio		391	6	0000	99999
	197	000	2	999	9	Roberts		393	6	0000	
	198	000	2	999	9	Robertson		395	6	0000	

		V	'ital	Stat	istic	Es Geographic Code Outline For The C Effective With 1998 Data.	Jnitea	States		Pag	e 107
St		Statis P/MSA				Area Names		Cnty		odes P/MSA	Place
44	199	067	1	039 063 132 135	0 3 6 6	Texas Rockwall Dallas, part Garland, part Rockwall Rowlett, part	48	397	5	1920	19000 29000 62828 63572
	200 201	000	2 2	999 999 073 083	9 9 6 6	Balance of county Runnels Rusk Henderson Kilgore, part		399 401	6 5	0000	33212 39124
	202 203 204 205	000 000 000 065	2 2 2 1	999 999 999	9 9 9 9	Balance of county Sabine San Augustine San Jacinto San Patricio		403 405 407 409	6 6 6 4	0000 0000 0000 1880	99999
	206 207 208	000 000 000	2 2 2	037 126 999 999	2 6 9 9	Corpus Christi, part Portland, part Balance of county San Saba Schleicher Scurry		411 413 415	6 6 6	0000 0000 0000	17000 58904 99999
	209 210 211	000 000 000	2 2 2	144 999 999 999	6 9 9 9	Snyder Balance of county Shackelford Shelby Sherman		417 419 421	6 6	0000 0000 0000	68624 99999
	212 213 214 215 216 217 218 219	288 000 000 000 000 000 000	1 2 2 2 2 2 2 2 2	157 999 999 999 999 999 999	499999999	Smith Tyler Balance of county Somervell Starr Stephens Sterling Stonewall Sutton Swisher		425 427 429 431 433 435 437	3 6566666	8640 0000 0000 0000 0000 0000 0000	74144 99999
	220	103	1	008 015 0027 0333 00556 0067 0070 0070 0071 1113 1170 99	2566656624555665669	Tarrant Arlington Bedford Benbrook Burleson, part Colleyville Euless Flower Mound, part Forest Hill Fort Worth, part Grand Prairie, part Grapevine, part Haltom City Hurst Keller Mansfield, part North Richland Hills Watauga White Settlement Balance of county		439	0	2800	04000 07132 07552 11428 15988 24768 24768 26232 26544 27000 30644 31928 35576 36452 52356 78544 9999
	221	001	1	001 999	3	Taylor Abilene, part Balance of county		441	3	0040	01000 99999
	222 223 224 225	000 000 000 000	2 2 2 2	999 999 999	9 9 9	Terrell Terry Throckmorton Titus Mount Pleasant		443 445 447 449	6 6 6	0000 0000 0000 0000	49800
	226	247	1	999 136	9	Balance of county Tom Green San Angelo		451	4	7200	99999 64472
	227	019	1	999 010	9	Balance of county Travis Austin, part		453	1	0640	99999 05000
	228 229	000	2 2	134 999 999 999	2 5 9 9 9	Round Rock, part Balance of county Trinity Tyler		455 457	6 6	0000	63500 99999

						Effective With 1998 Data.					
		Statis								Codes	
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
44						Texas	48				
	230	167	1	999	9	Upshur	10	459	5	4420	
	231	000	2	999	9	Upton		461	6	0000	
	232	000	2		,	Uvalde		463	6	0000	
	252	000	2	160	6	Uvalde		403	O	0000	74588
				999	9	Balance of county					99999
	233	000	2	222	9	Val Verde		465	5	0000	22222
	433	000	4	041	5	Del Rio		403	5	0000	19792
				999	9	Balance of county					99999
	234	000	2	999	9	Van Zandt		467	5	0000	22222
	235	292	1	999	9	Victoria		469	4	8750	
	233	292	Т	162	1			409	4	6/50	75428
				999	4 9	Victoria					99999
	226	000	0	999	9	Balance of county		471	4	0000	99999
	236	000	2	077	_	Walker		471	4	0000	25520
				077	5	Huntsville					35528
	000	100	-1	999	9	Balance of county		400	_	2260	99999
	237	127	1 2	999	9	Waller		473	6	3360	
	238	000	2	999	9	Ward		475	6	0000	
	239	000	2	000	_	Washington		477	5	0000	10156
				022	6	Brenham					10156
	0.40		-	999	9	Balance of county		4.7.0	_	4000	99999
	240	157	1	0.01	_	Webb		479	3	4080	41 46 4
				091	3	Laredo					41464
	0.41	0.00	_	999	9	Balance of county		401	_		99999
	241	000	2		_	Wharton		481	5	0000	
				050	6	El_Campo _					22864
			_	999	9	Balance of county			_		99999
	242	000	2	999	9	Wheeler		483	6	0000	
	243	302	1		_	Wichita		485	3	9080	
				026	6	Burkburnett					11368
				171	4	Wichita Falls, part					79000
			_	999	9	Balance of county			_		99999
	244	000	2		_	Wilbarger		487	6	0000	
				161	6	Vernon					75308
			_	999	9	Balance of county			_		99999
	245	000	2	999	9	Willacy		489	6	0000	
	246	019	1		_	Williamson		491	3	0640	
				010	2	Austin, part					05000
				065	6	Georgetown					29336
				134	5	Round Rock, part					63500
				151	6	Taylor					71948
				999	9	Balance of county					99999
	247	248	1	999	9	Wilson		493	6	7240	
	248	000	2	999	9 9	Winkler		495	6	0000	
	249	000	2	999	9	Wise		497	5	0000	
	250	000	2	999	9	Wood		499	5	0000	
	251	000	2 2 2	999	9	Yoakum		501	6	0000	
	252	000	2	999	9	Young		503	6	0000	
	253	000	2	999	9	Zapata		505	6	0000	
	254	000	2	999	9	Zavala		507	6	0000	

Vital Statistics Geographic Code Outline For The United States Page 109
Effective With 1998 Data

		a		a 1		Effective With 1998 Data.			D.G. G	1	
St (ital Cnty	Stati: P/MSA	stics M/NM	Code	s P/S	Area Names			PS Co P/S 1	odes P/MSA	Place
45	001 002	000	2 2	999	9	Utah Beaver Box Elder	49	001 003	6 5	0000	00460
	003	000	2	003 999 009	6 9 5	Brigham City Balance of county Cache Logan		005	4	0000	08460 99999 45860
	004 005 006	000 000 246	2 2 1	999 999 999	9 9 9	Balance of county Carbon Daggett Davis		007 009 011	6 6 3	0000 0000 7160	99999
				002 005 006 007 008 999 999	566659	Bountiful Centerville Clearfield Kaysville Layton Balance of county					07690 11980 13850 40360 43660 99999
	007 008 009 010 011	000 000 000 000 000	2 2 2 2 2	999 999 999	599999	Duchesne Emery Garfield Grand Iron		013 015 017 019 021	66666	0000 0000 0000 0000	
	012	000	2	004 999 999	6 9 9	Cedar City Balance of county Juab		023	6	0000	11320 99999
	013 014 015 016 017 018	000 000 000 000 000 246	2 2 2 2 2 2 1	999 999 999 999	99999	Kane Millard Morgan Piute Rich Salt Lake		025 027 029 031 033 035	6 6 6 6 6	0000 0000 0000 0000 0000 7160	
				010 011 017 020 021 022 024 028 029 999	6563466549	Midvale Murray Riverton Salt Lake City Sandy South Jordan South Salt Lake West Jordan West Valley City Balance of county			-	7100	49710 53230 64340 67000 67550 71070 82950 83445 9999
	019 020 021 022 023	000 000 000 000 000	2 2 2 2 2	999 999 999	9999	San Juan Sanpete Sevier Summit Tooele		037 039 041 043 045	6 6 6 5	0000 0000 0000 0000 0000	
	024	000	2	027 999 999	6 9 9	Tooele Balance of county Uintah		047	6	0000	76680 99999
	025	222	1	001 014 015 016 025 026 999	6 4 6 4 6 6 9	Utah American Fork Orem Pleasant Grove Provo Spanish Fork Springville Balance of county		049	2	6520	01310 57300 60930 62470 71290 72280 99999
	026 027	000	2 2	999 019	9 5	Wasatch Washington St. George		051 053	6 5	0000	65330
	028 029	000 246	2 1	999 999	9 9	Balance of county Wayne Weber		055 057	6 3	0000 7160	99999
				012 013 018 023 999	6 4 6 6 9	North Ogden Ogden Roy South Ogden Balance of county					55100 55980 65110 70960 99999

Vital Statistics Geographic Code Outline For The United States Page 110 Effective With 1998 Data.

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		Statis				Anna Namas	Q.L			Codes	Dlaga
SL	Chry	P/MSA	IM / IMIM	CILLY	P/S	Area Names	SL	Chry	P/S	P/MSA	Place
46		0.00	0	000	0	Vermont	50	0.01	_	0000	
	001	000	2	999	9	Addison		001	5	0000	
	002	000	2 2	999	9	Bennington		003	5	0000	
	003	000	2	999	9	Caledonia		005	5	0000	
	004	044	1			Chittenden		007	3	1303	
				001	5	Burlington					10675
				003	6	South Burlington					66175
				999	9	Balance of county					99999
	005	000	2	999	9	Essex		009	6	0000	
	006	044	์ 1	999	9	Franklin		011	5	1303	
	007	044	ī	999	9	Grand Isle		013	6	1303	
	008	000	1 2	999	9	Lamoille		015	6	0000	
	009	000	2	999	9			017	5	0000	
						Orange			-		
	010	000	2	999	9	Orleans		019	6	0000	
	011	000	2		_	Rutland		021	4	0000	
				002	6	Rutland					61225
				999	9	Balance of county					99999
	012	000	2	999	9	Washington		023	4	0000	
	013	000	2	999	9	Windham		025	5	0000	
	014	000	2	999	9	Windsor		027	4	0000	

		\	/ital	Stat	istic	es Geographic Code Outline For The C Effective With 1998 Data.	Jnited	States	ŀ	Pag	e 112
		Statis P/MSA				Area Names		FI St Cnty 51		Codes P/MSA	Place
4/	071 072 073	000 000 296	2 2 1	999 999	9 9	Virginia Lee Lexington city Loudoun	5	105 678 107	6 6 4	0000 0000 8840	99999
	074	000	2	017 999 999	6 9 9	Leesburg Balance of county Louisa		109	6	0000	44984 99999
	075 076 077	000 171 000	2 1 2	999 018 999	4 9	Lunenburg Lynchburg city Madison		111 680 113	6 4 6	0000 4640 0000	47672
	078 079 080	296 296 000	1 1 2	019 999 020	5 9 6	Manassas city Manassas Park city Martinsville city		683 685 690	5 6 6	8840 8840 0000	48952 99999 49784
	081 082 083	200 000 000	1 2 2 2	999 999 999	9 9 9	Mathews Mecklenburg Middlesex		115 117 119 121	6 5 6	5720 0000 0000	
	084	000	2	003 007 999	5 6 9	Montgomery Blacksburg Christiansburg Balance of county		121	4	0000	07784 16608 99999
	085 086	000 232	2 1	999 999	9	Nelson New Kent		125 127	6 6	0000 6760	
	087 088 089	200 200 000	1 1 2	021 022 999	9 9 9 3 2 9	Newport News city Norfolk city Northampton		700 710 131	3 2 6	5720 5720 0000	56000 57000
	090 091 092	000 000 000	2 2 2	999 999 999	9999995	Northumberland Norton city Nottoway		133 720 135	6 6 6	0000 0000 0000	99999
	093 094 095	000 000 000	2 2 2 2 2	999 999 999	9 9 9	Orange Page Patrick		137 139 141	6 6 6	0000 0000 0000	
	096 097	232 068	1 1	023 999	9	Petersburg city Pittsylvania		730 143	5 4	6760 1950	61832
	098 099 100	200 200 232	1 1 1	024 025 999	6	Poquoson city Portsmouth city Powhatan		735 740 145	6 3 6	5720 5720 6760	63768 64000
	101 102	000 232	2 1	999 999	9	Prince Edward Prince George		147 149	6	0000 6760	
	103 104	296 000		999 999	9 9 6	Prince William Pulaski		153 155	5 3 5 6	8840 0000	
	105 106	000	1 2 2 2 2	026 999		Radford city Rappahannock		750 157	6	0000	65392
	107 108 109	000 232 234	1 1	999 027 999	9 9 3 9	Richmond Richmond city Roanoke		159 760 161	6 3 4	0000 6760 6800	67000
	110 111	234 000	1 2	028 999	9 4 9	Roanoke city Rockbridge		770 163	3 4 4 6	6800 0000	68000
	112 113 114	000 000 234	2 2 1	999 999 029	9 9 9	Rockingham Russell Salem city		165 167 775	4 5 6	0000 0000 6800	70000
	115 116	140 000	1	999 999	9 9 9	Scott Shenandoah		169 171	6	3660 0000	
	117 118 120	000 000 296	2 2 2 1	999 999 999	9	Smyth Southampton		173 175 177	5 6 4	0000 0000 8840	
	121 122	296 000	1 2	999 030	9	Spotsylvania Stafford Staunton city		179 790	4 6	8840 0000	75216
	123 124	200 000	1 2	031 999	4 9	Suffolk city Surry		800 181	4 6	5720 0000	76432
	125 126	000	2 2	999 999	9 9	Sussex Tazewell		183 185	6 5 2	$0000 \\ 0000$	
	127 128	200 296	1 1	033	2	Virginia Beach city Warren Front Boyal		810 187	2 5	5720 8840	82000 29968
	129	140	1	012 999 999	6 9 9	Front Royal Balance of county Washington		191	5	3660	99999
	130 131	000	2	034 999	6 9 6	Waynesboro city Westmoreland		820 193	5 6	$0000 \\ 0000$	83680
	132 133	200	1 2	035	6	Williamsburg city Winchester city		830 840	6	5720 0000	86160 86720
	134 135 136	000 000 200	2 2 1	999 999 999	9 9 9	Wise Wythe York		195 197 199	5 5 5	0000 0000 5720	
	_55		-		-	= * = · *		100		3.20	

		V	'ital	Stat	istic	Effective With 1998 Data.	Unite	ea S	states		Pag	e II3
St		Statis P/MSA				Area Names					odes P/MSA	Place
48	001	000	2	999	9	Washington Adams		53	001	6	0000	
	002	000	2	999	9 9	Asotin			003	6	0000	
	003	231	1	014	5	Benton Kennewick			005	3	6740	35275
				033 999	5 5 9	Richland Balance of county						58235 99999
	004	000	2			Chelan			007	4	0000	
				041 999	6 9	Wenatchee Balance of county						77105 99999
	005	000	2			Clallam			009	4	0000	
				028 999	6 9	Port Angeles Balance of county						55365 99999
	006	220	1	039	5	Clark Vancouver			011	3	6440	74060
				999	9	Balance of county						74060 99999
	007 008	000 000	2	999	9	Columbia Cowlitz			013 015	6 4	0000	
	000	000	4	013	6	Kelso			013	-	0000	35065
				018 999	5 9 9	Longview Balance of county						40245 99999
	009	000	2	999	9	Douglas			017	5 6	0000	
	010 011	000 231	1	999	9	Ferry Franklin			019 021	6 5	0000 6740	
				027 999	6 9	Pasco Balance of county						53545 99999
	012	000	2	999	9	Garfield			023	6	0000	99999
	013	000	2	022	6	Grant Moses Lake			025	4	0000	47245
				999	9	Balance of county						99999
	014	000	2	001	6	Grays Harbor Aberdeen			027	4	0000	00100
	015	0.50	-	999	9	Balance of county			0.00		5	99999
	015	260	1	025	6	Island Oak Harbor			029	4	7600	50360
	016	000	2	999 999	9	Balance of county			021	6	0000	99999
	016 017	260	2 1	999	9	Jefferson King			031 033	0	7600	
				003 004	5 4 6	Auburn Bellevue						03180 05210
				006	6	Bothell, part						07380
				009 015	6 5	Des Moines Kent						17635 35415
				016	5 5 6	Kirkland						35940
				021 031	5	Mercer Island Redmond						45005 57535
				032 034	5 1	Renton						57745
				038	6	Seattle Tukwila						63000 72625
	018	040	1	999	9	Balance of county Kitsap			035	3	1150	99999
	010	040	_	007	5	Bremerton			033	3	1130	07695
	019	000	2	999	9	Balance of county Kittitas			037	5	0000	99999
	017		_	011	6	Ellensburg			00.		0000	21240
	020	000	2	999	9 9	Balance of county Klickitat			039	6	0000	99999
	021	000	2		_	Lewis			041	4	0000	11160
				008 999	6 9	Centralia Balance of county						11160 99999
	022 023	000 000	2 2	999 999	9 9 9	Lincoln Mason			043 045	6	0000	
	024	000	2	999	9	Okanogan			047	5	0000	
	025 026	000 000	2	999 999	9 9	Pacific Pend Oreille			049 051	6 6	0000 0000	
	027	277	ī			Pierce			053	ĭ	8200	F.C.C.O.F.
				030 037	6 3	Puyallup Tacoma						56695 70000
	028	000	2	999 999	9	Balance of county			055	6	0000	99999
	028	000	2			San Juan Skagit			055	4	0000	
				002 024	6 6	Anacortes Mount Vernon						01990 47560
	0.5.5	0.00	•	999	9	Balance of county			0 = 0	_	0000	99999
	030	000	2	999	9	Skamania			059	6	0000	

Vital Statistics Geographic Code Outline For The United States Page 114
Effective With 1998 Data.

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7	√ital	Statis	stics	Codes	S			F.	IPS (Codes	
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
48	-			-		Washington	53	-			
40	0.21	260	1			Washington	53	0.61	0	7600	
	031	260	1	000	_	Snohomish		061	2	7600	0.17.0.0
				006	6	Bothell, part					07380
				010	5	Edmonds					20750
				012	5 4 5	Everett					22640
				019	5	Lynnwood					40840
				020	6	Marysville					43955
				023	6	Mountlake Terrace					47490
				999	9	Balance of county			_		99999
	032	268	1			Spokane		063	2	7840	
				035	3 9	Spokane _					67000
			_	999	9	Balance of county			_		99999
	033	000	2	999	9	Stevens		065	5	0000	
	034	205	1		_	Thurston		067	3	5910	
				017	6	Lacey					36745
				026	5	Olympia __					51300
			_	999	9	Balance of county			_		99999
	035	000	2	999	9	Wahkiakum		069	6	0000	
	036	000	2		_	Walla Walla		071	5	0000	
				040	5	Walla Walla					75775
				999	9	Balance of county			_		99999
	037	026	1		_	Whatcom		073	3	0860	
				005	4	Bellingham					05280
			_	999	9	Balance of county			_		99999
	038	000	2		_	Whitman		075	5	0000	
				029	6	Pullman					56625
				999	9	Balance of county			_		99999
	039	306	1		_	Yakima		077	3	9260	
				036	6	Sunnyside					68750
				042	4	Yakima					80010
				999	9	Balance of county					99999

		V	ıtaı	Stat	ISCIC	Effective With 1998 Data.	e onice	eu s	Lates		Pag	e 113
St		Statis P/MSA				Area Names					odes P/MSA	Place
49	001 002	000 296	2 1	999	9	West Virginia Barbour Berkeley Martinsburg		54	001 003	6 4	0000 8840	52060
	003 004 005	000 000 273	2 2 1	999 999 999	9 9 9	Balance of county Boone Braxton Brooke			005 007 009	5 6 5	0000 0000 8080	99999 85156
	006	128	1	014 999 006	9 4	Weirton, part Balance of county Cabell Huntington, part			011	4	3400	99999 39460
	007 008 009 010 011 012 013 014 015	000 000 000 000 000 000 000 273	2 2 2 2 2 2 2 2 1	99999999999999999999999999999999999999	99999999	Balance of county Calhoun Clay Doddridge Fayette Gilmer Grant Greenbrier Hampshire Hancock			013 015 017 019 021 023 025 027	666566565	0000 0000 0000 0000 0000 0000 0000 8080	99999
	016	000	2	014 999 999	6 9 9	Weirton, part Balance of county Hardy			031	6	0000	85156 99999
	017	000	2	004 999	6	Harrison Clarksburg Balance of county			033	4	0000	15628 99999
	018 019 020	296 050	2 1 1	999 999 003 011	9 9 9 4 6	Jackson Jefferson Kanawha Charleston St. Albans			035 037 039	5 5 3	8840 1480	14600 71212
	021 022 023 024 025	000 000 000 000 000	2 2 2 2 2	012 999 999 999 999	699999	South Charleston Balance of county Lewis Lincoln Logan McDowell Marion			041 043 045 047 049	6 6 5 5 4	0000 0000 0000 0000 0000	75292 99999
	026	300	1	005 999 009	6	Fairmont Balance of county Marshall Moundsville			051	5	9000	26452 99999 56020
	027 028	000	2 2	015 999 999	5 9 9	Wheeling, part Balance of county Mason Mercer			053 055	5 4	0000	86452 99999
	029 030 031	066 000 000	1 2 2	002 999 999 999	6 9 9	Bluefield Balance of county Mineral Mingo Monongalia			057 059 061	5 5 4	1900 0000 0000	08524 99999
	032 033 034 035	000 000 000 300	2 2 2 1	008 999 999 999 999	9 9 5	Morgantown Balance of county Monroe Morgan Nicholas Ohio Wheeling, part			063 065 067 069	6 6 5 4	0000 0000 0000 9000	55756 99999 86452
	036 037 038 039 040 041	000 000 000 000 050 000	2 2 2 2 1 2	999 999 999 999 999	999999	Balance of county Pendleton Pleasants Pocahontas Preston Putnam Raleigh			071 073 075 077 079 081	6 6 6 5 5 4	0000 0000 0000 0000 1480 0000	99999
	042 043 044 045 046 047	000 000 000 000 000	2 2 2 2 2 2 2	001 999 999 999 999 999	69999999	Beckley Balance of county Randolph Ritchie Roane Summers Taylor Tucker			083 085 087 089 091 093	566666	0000 0000 0000 0000 0000	05332 99999

Vital Statistics Geogr	aphic Code Outlin	ne For The	United States	Page 116
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	73 4 - 7	Q+ - +		Q1		Effective with 1990 Data.			. D. a		
		Statis					~.			odes	
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
49						West Virginia	54				
	048	000	2	999	9	Tyler		095	6	0000	
	049	000	2	999	9	Upshur		097	6	0000	
	050	128	1			Wayne		099	5	3400	
				006	4	Huntington, part					39460
				999	9	Balance of county					99999
	051	000	2	999	9	Webster		101	6	0000	
	052	000	2	999	9	Wetzel		103	6	0000	
	053	000	2	999	9	Wirt		105	6	0000	
	054	211	1			Wood		107	4	6020	
				010	5	Parkersburg					62140
				013	6	Vienna					83500
				999	9	Balance of county					99999
	055	000	2	999	9	Wyoming		109	5	0000	
	000	5 5 0	_		-			_0,	_	5500	

Vital Statistics Geographic Code Outline For The United States Page 117

		V	ıtaı	stat	ISCIC	Effective With 1998 Data.	THE UNIT			_	E 11/
St (Statis P/MSA			P/S	Area Names		St Cnty	FIPS C		Place
50	001 002 003 004 005	000 000 000 000 115	2 2 2 2 1	999 999 999 999 001 003 011	9999 6666	Wisconsin Adams Ashland Barron Bayfield Brown Allouez village Ashwaubenon village De Pere		55 003 005 005	3 6 5 5 7 6	0000 0000 0000 0000 3080	01175 03425 19775
	006 007 008	000 000 013	2 2 1	019 999 999 999	4 9 9 9	Green Bay Balance of county Buffalo Burnett Calumet Appleton, part		011 013 015	3 6	0000 0000 0460	31000 99999 02375
	009	082	1	030 999 009 012	6 9 6 4	Menasha, part Balance of county Chippewa Chippewa Falls Eau Claire, part		017	7 4	2290	50825 99999 14575 22300
	010 011 012 013	000 000 000 173	2 2 2 1	999 999 999	9999	Balance of county Clark Columbia Crawford Dane		019 021 023 025	5 3 6	0000 0000 0000 4720	99999
	014	000	0	013 026 034 051 999	6 3 6 6 9	Fitchburg Madison Middleton Sun Prairie Balance of county		0.05		0000	25950 48000 51575 78600 99999
	014	000	2	004 054 999	6 6 9	Dodge Beaver Dam Watertown, part Balance of county		025		0000	05900 83975 99999
	015 016	000	2	999 052 999	9 5 9	Door Douglas Superior Balance of county		029 031	L 5	0000 2240	78700 99999
	017	000	2	032 999	6 9	Dunn Menomonie Balance of county Eau Claire		033		2290	51025 99999
	019 020	000	2 2	012 999 999	4 9 9	Eau Claire, part Balance of county Florence Fond du Lac Fond du Lac		035 039		0000	22300 99999 26275
	021 022 023	000 000 000	2 2 2	999 999 999	5999	Balance of county Forest Grant Green		041 043 045	3 5	0000 0000 0000	99999
	024 025 026 027 028	000 000 000 000	2 2 2 2 2	036 999 999 999 999	699999	Monroe Balance of county Green Lake Iowa Iron Jackson Jefferson		045 049 051 053	6 L 6 B 6	0000 0000 0000 0000	53750 99999
	029 030	000 146	2	015 054 061 999 999	6 6 6 9 9 4	Fort Atkinson Watertown, part Whitewater, part Balance of county Juneau Kenosha		057 059		0000 3800	26675 83975 86925 99999
	031 032	000 150	2	024 044 999 999	6 9 9	Kenosha Pleasant Prairie village Balance of county Kewaunee La_Crosse		061 063		0000 3870	39225 63300 99999
	033 034 035	000 000 000	2 2 2	025 042 999 999 999	469999	La Crosse Onalaska Balance of county Lafayette Langlade Lincoln		065 065	76	0000 0000 0000	40775 59925 99999

Vital Statistics Geographic Code Outline For The United States Page 118

			VILAI	Stat	ISCI	Effective With 1998 Data.	ine onitted	i States		Pag	e 110
St (Statis P/MSA				Area Names		St Cnty		odes P/MSA	Place
50	036	000	2	027 053	5	Wisconsin Manitowoc Manitowoc Two Rivers	į	55 071	4	0000	48500 81325
	037	298	1	999 029 056	9 6 5	Balance of county Marathon Marshfield, part Wausau		073	3	8940	99999 49675 84475
	038	000	2	999 028 999	9 6 9	Balance of county Marinette Marinette Balance of county		075	5	0000	99999 49300 99999
	039 040 041	000 000 182	2 2 1	999 999 007	9 9 6	Marquette Menominee Milwaukee Brown Deer village		077 078 079	6 6 1	0000 0000 5080	10375
				010 016 018 020 021 048 049 057 060 99	6666516665469	Cudahy Franklin Glendale Greendale village Greenfield Milwaukee, part Oak Creek Shorewood village South Milwaukee Wauwatosa West Allis Whitefish Bay village Balance of county					17975 27300 29400 31125 31175 53000 58800 73725 75125 84675 85300 99999
	042 043 044 045	000 000 000 013	2 2 2 1	999 999 999	9 9 9	Monroe Oconto Oneida Outagamie Appleton, part		081 083 085 087	5 5 3	0000 0000 0000 0460	02375
	046	182	1	023 999 008	6	Kaukauna Balance of county Ozaukee Cedarburg		089	4	5080	38800 99999 13375
	047 048	000 183	2	033 999 999 046	6 9 9	Mequon Balance of county Pepin Pierce River Falls, part		091 093	6 5	0000 5120	51150 99999 68275
	049 050	000	2 2	999 999 050	9 9 6	Balance of county Polk Portage Stevens Point		095 097	5 4	0000	99999 77200
	051 052	000 225	2 1	999 999 045	9 9 4	Balance of county Price Racine Racine		099 101	6	0000 6600	99999
	053 054	000 138	2 1	999 999 005	9 9 5	Balance of county Richland Rock Beloit		103 105	6	0000 3620	99999 06500
	055 056	000 183	2	022 999 999	4 9 9	Janesville Balance of county Rusk St. Croix River Falls, part		107 109	6 4	0000 5120	37825 99999 68275
	057 058 059 060	000 000 000 262	2 2 2 1	999 999 999 999	9 9 9 9	Balance of county Sauk Sawyer Shawano Sheboygan Sheboygan		111 113 115 117	5 6 5 3	0000 0000 0000 7620	72975
	061 062 063 064 065	000 000 000 000 000	2 2 2 2 2	999 999 999 999	9999	Balance of county Taylor Trempealeau Vernon Vilas Walworth		119 121 123 125 127	6 5 6 4	0000 0000 0000 0000 0000	99999
	066	000	2	061 999 999	6 9 9	Whitewater, part Balance of county Washburn		129	6	0000	86925 99999

Vital Statistics Geographic Code Outline For The United States Page 119
Effective With 1998 Data.

Vital	Statis	stics	Code	s	Effective With 1996 Data.		FI	PS C	odes	
St Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
067	182	1	017 035 059	6 1 6	Wisconsin Washington Germantown village Milwaukee, part West Bend	55	131	4	5080	28875 53000 85350
068	182	1	999 006 031 035 037 039 041 055 999	9 55165649	Balance of county Waukesha Brookfield Menomonee Falls village Milwaukee, part Muskego New Berlin Oconomowoc Waukesha Balance of county		133	2	5080	99999 10025 51000 53000 55275 56375 59250 84250 99999
069 070 071	000 000 013	2 2 1	999 999 002 030 038 043	9 9 4 6 6 4	Waupaca Waushara Winnebago Appleton, part Menasha, part Neenah Oshkosh		135 137 139	5 6 3	0000 0000 0460	02375 50825 55750 60500
072	000	2	999 029 062 999	9 6 6 9	Balance of county Wood Marshfield, part Wisconsin Rapids Balance of county		141	4	0000	99999 49675 88200 99999

						Effective With 1998 Data.					
		Statis P/MSA				Area Names	St		IPS C P/S	odes P/MSA	Place
51	001	000	2	006	5	Wyoming Albany Laramie	56	001	5	0000	45050
	002	000	2 2	999	9	Balance of county Big Horn Campbell		003 005	6 5	0000	99999
(004 005 006 007 008 009 010	000 000 000 000 000 000 000 054	2 2 2 2 2 2 2	004 9999 9999 9999 9999 9999	699999999	Gillette Balance of county Carbon Converse Crook Fremont Goshen Hot Springs Johnson Laramie		007 009 011 013 015 017 019 021	66656664	0000 0000 0000 0000 0000 0000 1580	31855 99999
(012	000 046	2	002 999 999	4 9 9	Cheyenne Balance of county Lincoln Natrona		023 025	6 4	0000	13900 99999
(014 015 016 017	000 000 000 000	2 2 2 2	001 999 999 999	5 9 9 9	Casper Balance of county Niobrara Park Platte Sheridan		027 029 031 033	6 6 6	0000 0000 0000 0000	13150 99999
	018 019	000	2 2	008 999 999	6 9 9	Sheridan Balance of county Sublette Sweetwater Green River		035 037	6 5	0000	69845 99999 33740
	020 021	000	2 2	007 999 999	6 9 9	Rock Springs Balance of county Teton Uinta Evanston		039 041	6 6	0000	67235 99999 25620
	022 023	000	2 2	999 999 999	9 9 9	Balance of county Washakie Weston		043 045	6 6	0000	99999

Vital	Statistics	Geographic	Code	Outline	For	The	United	States	Page 121	
		Effective	With	1998 Dat	a.				G 1	

	Vital	Statis	Statistics Codes P/MSA M/NM City P/S			HITCOCIVE WICH 1990 Baca.		FI	PS C	Codes	
St	Cnty	P/MSA	M/NM	City	P/S	Area Names	St	Cnty	P/S	P/MSA	Place
52	ZZZ	ZZZ	Z	ZZZ	Z	Puerto Rico	00	000	Z	0000	
53	ZZZ	ZZZ	Z	ZZZ	Z	Virgin Islands	00	000	Z	0000	
54	ZZZ	ZZZ	Z	ZZZ	Z	Guam	00	000	Z	0000	
55	ZZZ	ZZZ	Z	ZZZ	Z	Canada	00	000	Z	0000	
56	ZZZ	ZZZ	Z	ZZZ	Z	Cuba	00	000	Z	0000	
57	ZZZ	ZZZ	Z	ZZZ	Z	Mexico	00	000	Z	0000	
59	ZZZ	ZZZ	Z	ZZZ	Z	Remainder of World	00	000	Z	0000	
61	ZZZ	ZZZ	Z	ZZZ	Z	American Samoa	00	000	Z	0000	
62	ZZZ	ZZZ	Z	ZZZ	Z	Northern Marianas	00	000	Z	0000	

Vital Statistics Geographic Code Outline For Puerto Rico, Virgin Islands, Guam, American Samoa and Northern Marianas Effective With 1998 Data

Page 2

		tatis P/MSA			Area Names	St		PS Code P/MSA	es Place
37	000	999	9	000	Oklahoma	40	000	0000	00000
38	000	999	9	000	Oregon	41	000	0000	00000
39	000	999	9	000	Pennsylvania	42	000	0000	00000
40	000	999	9	000	Rhode Island	44	000	0000	00000
41	000	999	9	000	South Carolina	45	000	0000	00000
42	000	999	9	000	South Dakota	46	000	0000	00000
43	000	999	9	000	Tennessee	47	000	0000	00000
44	000	999	9	000	Texas	48	000	0000	00000
45	000	999	9	000	Utah	49	000	0000	00000
46	000	999	9	000	Vermont	50	000	0000	00000
47	000	999	9	000	Virginia	51	000	0000	00000
48	000	999	9	000	Washington	53	000	0000	00000
49	000	999	9	000	West Virginia	54	000	0000	00000
50	000	999	9	000	Wisconsin	55	000	0000	00000
51	000	999	9	000	Wyoming	56	000	0000	00000

					Effective With 1998 Data	
				Codes City	Area Names	FIPS Codes St Cnty P/MSA Place
52	$\begin{array}{c} 12334566789011234567890122345678901234901233456789001233456789012334567890100000000000000000000000000000000000$	$01116042060643266636030666066600056324600056660004166660055006404633006666066\\000000000000000000000$	2111211212121111111111212112112111221111	0 a 0 a 0 a 0 a 0 a 0 a 0 a 0 a 0 a 0 a	Puerto Rico Adjuntas Aguada Aguadilla Aguas Buenas Aibonito Anasco Arecibo Arroyo Barceloneta Barranquitas Bayamon Cabo Rojo Caguas Camuy Canovanas Carolina Catano Cayey Ceiba Ciales Cidra Coamo Comerio Corozal Culebra Dorado Fajardo Florida Guayama Guayama Guayanilla Guaynabo Gurabo Hatillo Hormigueros Humacao Isabela Jayuya Juana Diaz Juncos Lajas Lares Las Marias Lares Las Marias Lares Las Piedras Loiza Luquillo Manati Maricao Maunabo Mayaguez Moca Morovis Naguabo Naranjito Orocovis Patillas Penuelas Ponce Quebradillas Rincon Rio Grande Sabana Grande Salinas San German San Juan San Lorenzo San Sebastian Santa Isabel Toa Alta Toa Baja Trujillo Alto Utuado Vega Alta Vega Baja	001 0000 003 0060 005 0060 007 7440 009 0000 011 4840 013 0470 015 0000 017 7440 019 0000 017 7440 019 0000 021 7440 023 4840 025 1310 027 0470 029 7440 031 7440 031 7440 033 7440 035 1310 037 7440 039 0000 041 1310 043 0000 041 1310 043 7440 053 7440 053 7440 053 7440 067 7440 071 0000 057 6360 061 7440 069 7440 069 7440 069 7440 069 7440 071 0000 075 6360 077 7440 079 0000 081 0000 085 7440 071 0000 075 6360 077 7440 079 0000 077 7440 079 0000 077 7440 079 0000 077 7440 079 0000 077 7440 079 7400 079 7440 079

		tatist P/MSA			Area Names	St	FIPS Co Cnty P/MS	
52	075 076 077 078	000 005 006 005	2 1 1 1	999 999 999 999	Puerto Rico Vieques Villalba Yabucoa Yauco	72	147 0000 149 6360 151 7440 153 6360	
53	001 002 003	000 000 000	2 2 2	999 999 001 999	Virgin Islands St. Croix St. John St. Thomas Charlotte Amalie Balance of area	78	010 0000 020 0000 030 0000	99999 99999
54	000	000	2	000	Guam Guam Guam	66	010 0000	99999
55	ZZZ	ZZZ	Z	ZZZ	Canada	00	000 0000	00000
56	ZZZ	ZZZ	Z	ZZZ	Cuba	00	000 0000	00000
57	ZZZ	ZZZ	Z	ZZZ	Mexico	00	000 0000	00000
59	ZZZ	ZZZ	Z	ZZZ	Remainder of World	00	000 0000	00000
61	000	000	2	000	American Samoa American Samoa American Samoa	60	000 0000	99999
62	000	000	2	000	Northern Marianas Northern Marianas Northern Marianas	69	000 0000	99999

List of Primary Metropolitan Statistical Areas and their Component Counties For the United States and Puerto Rico

77 ² + - 1 O+			Fuelto Rico	TTDC	Q1 -	
Vital St	atistic		7 (162)		Code	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	Stat	e Cnty
001			Abilene, TX, MSA	0040		
	44		Texas		48	
		221	Taylor			441
002			Akron, OH, PMSA	0800		
	36		Ohio		39	
		067	Portage			133
		077	Summit			153
003		011	Albany, GA, MSA	0120		133
003	11			0120	13	
	TT	0.47	Georgia		13	095
		047	Dougherty			
004		088	Lee	0160		177
004			Albany-Schenectady-Troy, NY, MSA	0160		
	33		New York		36	
		001	Albany			001
		027	Montgomery			057
		039	Rensselaer			083
		042	Saratoga			091
		043	Schenectady			093
		044	Schoharie			095
005		0	Albuquerque, NM, MSA	0200		0,2,5
005	32		New Mexico	0200	35	
	32	001	Bernalillo		55	001
		024	Sandoval			043
006		033	Valencia	0000		061
006	1.0		Alexandria, LA, MSA	0220	0.0	
	19		Louișiana		22	
		040	Rapides			079
007			Allentown-Bethlehem-Easton, PA, MSA	0240		
	39		Pennsylvania		42	
		013	Carbon			025
		039	Lehigh			077
		048	Northampton			095
008			Altoona, PA, MSA	0280		
	39		Pennsylvania		42	
	0,0	007	Blair			013
009		007	Amarillo, TX, MSA	0320		013
000	44		Texas	0320	48	
	77	188	Potter		10	375
		191	Randall			381
010		191		0200		201
010	0.0		Anchorage, AK, MSA	0380	0.0	
	02	000	Alaska		02	000
0.1.1		003	Anchorage	0.4.4.0		020
011			Ann Arbor, MI, PMSA	0440		
	23		Michigan		26	
		046	Lenawee			091
		047	Livingston			093
		081	Washtenaw			161
012			Anniston, AL, MSA	0450		
	01		Alabama		01	
		800	Calhoun			015
013			Appleton-Oshkosh-Neenah, WI, MSA	0460		
0-0	50		Wisconsin	3 2 0 0	55	
	50	008	Calumet		55	015
		045	Outagamie			087
		071	Winnebago			139
014		0/1	Agharrilla NC MCA	0480		100
014	2.4		Asheville, NC, MSA	0400	2 7	
	34	011	North Carolina		37	001
		011	Buncombe			021
		058	Madison			115

TT' 1 7 C1		a 1		Puerto Rico	FFFG	a 1	
Vital St			D/MGA Name and Garate	Common on on the		Code	
P/MSA 015	State	County	P/MSA Name and County	Components	P/MSA	Stat	e Cnty
012	11		Athens, GA, MSA		0500	13	
	T T	029	Georgia Clarke			13	059
		029	Madison				195
016		108	Oconee		0.5.00		219
0.1.0	1 1		Atlanta, GA, MSA		0520	1 2	
	11	0.07	Georgia			13	012
		007	Barrow				013
		008	Bartow				015
		022	Carroll				045
		028	Cherokee				057
		031	Clayton				063
		033	Cobb				067
		038	Coweta				077
		044	De Kalb				089
		048	Douglas				097
		056	Fayette				113
		058	Forsyth				117
		060	Fulton				121
		067	Gwinnett				135
		075	Henry				151
		107	Newton				217
		110	Paulding				223
		112	Pickens				227
		122	Rockdale				247
		126	Spalding				255
0.1 🗖		147	Walton		0560		297
017	0.1		Atlantic-Cape May, NJ	, PMSA	0560	2.4	
	31	0.01	New Jersey			34	0.01
		001	Atlantic				001
010		005	Cape May	1/63	0.600		009
018	1.1		Augusta-Aiken, GA-SC,	MSA	0600	1.0	
	11	0.2.6	Georgia,			13	0.77.2
		036	Columbia				073
		094	McDuffie				189
	4.1	121	Richmond			4 =	245
	41	0.00	South Carolina			45	0.00
		002	Aiken				003
019		019	Edgefield	MOA	0640		037
019	1.1		Austin-San Marcos, TX	, MSA	0640	4.0	
	44	011	Texas			48	021
		011	Bastrop				
		028	Caldwell				055 209
		105 227	Hays				453
		246	Travis				491
020		240	Williamson Bakersfield, CA, MSA		0680		421
020	05		California		0000	06	
	0.5	015	Kern			00	029
021		013	Baltimore, MD, PMSA		0720		029
021	21		Maryland		0 / 2 0	24	
	21	002	Anne Arundel			27	003
		003	Baltimore				005
		004	Baltimore city				510
		007	Carroll				013
		013	Harford				025
		014	Howard				023
		018	Queen Anne's				035
022		010	Bangor, ME, NECMA		0733		
	20		Maine Maine			23	
		010	Penobscot				019
023			Barnstable-Yarmouth,	MA, NECMA	0743		
	22		Massachusetts	,		25	
		001	Barnstable			-	001
		-					-

027

McLean

Canyon

Idaho

Ada

Boise City, ID, MSA

Puerto Rico Vital Statistics Codes P/MSA State County 024 FIPS Codes $\mbox{P/MSA}$ Name and County Components Baton Rouge, LA, MSA P/MSA State Cnty Louisiana 017 Ascension East Baton Rouge Livingston West Baton Rouge Beaumont-Port Arthur, TX, MSA Texas Hardin 361 181 Jefferson Orange Bellingham, WA, MSA Washington Whatcom Benton Harbor, MI, MSA Michigan Berrien Bergen-Passaic, NJ, PMSA New Jersey Bergen Passaic Billings, MT, MSA Montana Yellowstone Biloxi-Gulfport-Pascagoula, MS, MSA Mississippi Hancock Harrison Jackson Binghamton, NY, MSA New York Broome 050 Tioga Birmingham, AL, MSA Alabama 037 058 Blount Jefferson St. Clair Shelby Bismarck, ND, MSA North Dakota Burleigh Morton Bloomington, IN, MSA Indiana Monroe Bloomington-Normal, IL, MSA Illinois

!		~ 1	Puerto Rico		~ 7	
Vital St					Code	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	Stat	e Cnty
037			Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH	1123		
	22		Massachusetts		25	
		003	Bristol			005
		005	Essex			009
		009	Middlesex			017
		011	Norfolk			021
		012	Plymouth			023
		013	Suffolk			025
		014	Worcester			027
	30	OIT	New Hampshire		33	027
	30	006			33	011
			Hillsborough			
		800	Rockingham			015
000		009	Strafford	1105		017
038			Boulder-Longmont, CO, PMSA	1125		
	06		Colorado		8 0	
		007	Boulder			013
039			Brazoria, TX, PMSA	1145		
	44		Texas		48	
		020	Brazoria			039
040			Bremerton, WA, PMSA	1150		
	48		Washington		53	
		018	Kitsap		0.0	035
041		010	Brownsville-Harlingen-San Benito, TX, MSA	1240		033
011	44		Texas	1210	48	
	77	031	Cameron		10	061
042		031	Bryan-College Station, TX, MSA	1260		001
042	44			1200	48	
	44	0.01	Texas		40	0.41
0.4.2		021	Brazos	1000		041
043	2.2		Buffalo-Niagara Falls, NY, MSA	1280	2.0	
	33		New York		36	
		014	Erie			029
		030	Niagara			063
044			Burlington, VT, NECMA	1303		
	46		Vermont		50	
		004	Chittenden			007
		006	Franklin			011
		007	Grand Isle			013
045			Canton-Massillon, OH, MSA	1320		
	36		Ohio		39	
	5.0	010	Carroll		-	019
		076	Stark			151
046		0 7 0	Casper, WY, MSA	1350		
010	51		Wyoming	1330	56	
	JI	013	Natrona		50	025
047		013		1360		025
047	16		Cedar Rapids, IA, MSA	1360	1.0	
	Τ0	0.57	Iowa		19	110
0.40		057	Linn	1 400		113
048			Champaign-Urbana, IL, MSA	1400		
	14		Illinois		17	
		010	Champaign			019
049			Charleston-North Charleston, SC, MSA	1440		
	41		South Carolina		45	
		008	Berkeley			015
		010	Charleston			019
		018	Dorchester			035
050		-	Charleston, WV, MSA	1480		
000	49		West Virginia	_ 100	54	
		020	Kanawha		J 1	039
		040	Putnam			079
		0.10	I WOIIWIII			0,7

_			Puerto Rico			
Vital St			D/MGA Mana and Games Games and a		Code	
P/MSA 051	State	County	P/MSA Name and County Components Charlotte-Gastonia-Rock Hill, NC-SC, MSA	P/MSA 1520	State	e Cnty
031	34		North Carolina	1320	37	
	0 1	013	Cabarrus		<i>J</i> ,	025
		036	Gaston			071
		055	Lincoln			109
		060	Mecklenburg			119
		080 090	Rowan Union			159 179
	41	090	South Carolina		45	1/9
		046	York		13	091
052		0.10	Charlottesville, VA, MSA	1540		0,7 =
	47		Virginia		51	
		002	Albemarle			003
		025	Charlottesville city			540
		045 055	Fluvanna Greene			065 079
053		033	Chattanooga, TN-GA, MSA	1560		019
033	11		Georgia	1300	13	
		023	Catoosa			047
		041	Dade			083
	4.2	146	Walker		4 7	295
	43	033	Tennessee Hamilton		47	065
		058	Marion			115
054		030	Cheyenne, WY, MSA	1580		113
	51		Wyoming		56	
		011	Laramie			021
055	1.4		Chicago, IL, PMSA	1600	1 77	
	14	016	Illinois Cook		17	031
		019	De Kalb			037
		022	Du Page			043
		032	Grundy			063
		045	Kane			089
		047	Kendall			093
		049 056	Lake McHenry			097 111
		099	Will			197
056		0,5,5	Chico-Paradise, CA, MSA	1620		
	05		California		06	
0.5.5		004	Butte	1640		007
057	1 -		Cincinnati, OH-KY-IN, PMSA	1640	1.0	
	15	015	Indiana Dearborn		18	029
		058	Ohio			115
	18		Kentucky		21	
		800	Boone			015
		019	Campbell			037
		039 041	Gallatin			077
		059	Grant Kenton			081 117
		096	Pendleton			191
	36		Ohio		39	
		008	Brown			015
		013	Clermont			025
		031 083	Hamilton Warren			061 165
058		003	Clarksville-Hopkinsville, TN-KY, MSA	1660		T02
0.50	18		Kentucky	1000	21	
		024	Christian			047
	43		Tennessee		47	
		063	Montgomery			125

Puerto Rico Vital Statistics Codes FIPS Codes P/MSA Name and County Components Cleveland-Lorain-Elyria, OH, PMSA P/MSA State County 059 P/MSA State Cnty Ohio Ashtabula Cuyahoga Geauga Lake 052 Lorain Medina Colorado Springs, CO, MSA Colorado El Paso Columbia, MO, MSA Missouri Boone Columbia, SC, MSA South Carolina Lexington Richland Columbus, GA-AL, MSA Alabama Russell Georgia Chattahoochee Harris Muscogee Columbus, OH, MSA Ohio Delaware 025 045 Fairfield 049 Franklin 097 Licking Madison Pickaway Corpus Christi, TX, MSA Texas Nueces San Patricio
Cumberland, MD-WV, MSA
Maryland
Allegany
West Virginia Mineral Dallas, TX, PMSA Texas 113 121 139 057 Collin Dallas 070 Denton Ellis 231 Henderson Hunt Kaufman Rockwall
Danville, VA, MSA
Virginia
Danville city Pittsylvania Davenport-Moline-Rock Island, IA-IL, MSA

Illinois

Iowa

Scott

Henry Rock Island

Puerto Rico Vital Statistics Codes P/MSA State County 070 FIPS Codes P/MSA Name and County Components Dayton-Springfield, OH, MSA Ohio P/MSA State Cnty Clark Greene Miami Montgomery
Daytona Beach, FL, MSA
Florida
Flagler 127 Volusia Decatur, AL, MSA Alabama Lawrence Morgan Decatur, IL, MSA Illinois Macon Denver, CO, PMSA Colorado Adams Arapahoe 018 Denver Douglas Jefferson Des Moines, IA, MSA Iowa Dallas Polk Warren Detroit, MI, PMSA Michigan 050 058 Lapeer Macomb 115 125 147 Monroe Oakland St. Clair Wayne Dothan, AL, MSA Alabama Dale Houston Dover, DE, MSA Delaware Kent Dubuque, IA, MSA Iowa Dubuque Duluth-Superior, MN-WI, MSA Minnesota St. Louis Wisconsin Douglas Dutchess County, NY, PMSA New York Dutchess

Eau Claire, WI, MSA

Wisconsin

Chippewa Eau Claire

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			United States			
'		a 1	Puerto Rico	====	~ 1	
Vital St P/MSA		s Codes County	D/MCA Name and County Components	P/MSA	Code	
083	State	Country	P/MSA Name and County Components El Paso, TX, MSA	2320	Stat	e Cnty
003	44		Texas	2320	48	
	11	071	El Paso		10	141
084		0 / 1	Elkhart-Goshen, IN, MSA	2330		
	15		Indiana		18	
		020	Elkhart			039
085			Elmira, NY, MSA	2335		
	33		New York		36	
		007	Chemung			015
086			Enid, OK, MSA	2340		
	37		Oklahoma		40	
		024	Garfield			047
087	2.0		Erie, PA, MSA	2360	4.0	
	39	005	Pennsylvania		42	0.40
088		025	Erie	2400		049
088	38		Eugene-Springfield, OR, MSA	2400	41	
	30	020	Oregon Lane		4.7	039
089		020	Evansville-Henderson, IN-KY, MSA	2440		039
000	15		Indiana	2110	18	
	13	065	Posey			129
		082	Vanderburgh			163
		087	Warrick			173
	18		Kentucky		21	
		051	Henderson			101
090			Fargo-Moorhead, ND-MN, MSA	2520		
	24		Minnesota		27	
	2 =	014	Clay		2.0	027
	35	000	North Dakota		38	017
0.01		009	Cass	2560		017
091	34		Fayetteville, NC, MSA North Carolina	2560	37	
	34	026	Cumberland		3 /	051
092		020	Fayetteville-Springdale-Rogers, AR, MSA	2580		031
0,72	04		Arkansas	2300	05	
	0 1	004	Benton		0.5	007
		072	Washington			143
093			Flint, MI, PMSA	2640		
	23		Michigan		26	
		025	Genesee			049
094			Florence, AL, MSA	2650		
	01		Alabama		01	
		017	Colbert			033
005		039	Lauderdale	0.655		077
095	41		Florence, SC, MSA	2655	4 =	
	41	021	South Carolina		45	041
096		021	Florence Fort Collins-Loveland, CO, MSA	2670		041
090	06		Colorado	2070	08	
	00	035	Larimer		00	069
097		033	Fort Lauderdale, FL, PMSA	2680		
0,7	10		Florida	2000	12	
		006	Broward			011
098			Fort Myers-Cape Coral, FL, MSA	2700		
	10		Florida		12	
		036	Lee			071

Primary and Metropolitan Statistical Areas Established in 1990 Page Effective with 1994 and Adapted for Use by DVS United States

Puerto Rico Vital Statistics Codes FIPS Codes P/MSA Name and County Components Fort Pierce-Port St. Lucie, FL, MSA Florida P/MSA State County 099 P/MSA State Cnty Martin St. Lucie Fort Smith, AR-OK, MSA Arkansas Crawford Sebastian Oklahoma Sequoyah Fort Walton Beach, FL, MSA Florida Okaloosa Fort Wayne, IN, MSA Indiana Adams Allen De Kalb 179 Huntington Whitley Fort Worth-Arlington, TX, PMSA Texas 251 **POOH** Johnson Parker Tarrant Fresno, CA, MSA California Fresno Madera Gadsden, AL, MSA Alabama Etowah Gainesville, FL, MSA Florida Alachua Galveston-Texas City, TX, PMSA Texas Galveston Gary, IN, PMSA Indiana Lake Porter Glens Falls, NY, MSA New York Warren 054 115 Washington Goldsboro, NC, MSA North Carolina Wayne Grand Forks, ND-MN, MSA

Minnesota

North Dakota

Grand Forks

Polk

Primary and Metropolitan Statistical Areas Established in 1990 Page 11 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

			Puerto Rico			
Vital St					Code	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	Stat	e Cnty
112	23		Grand Rapids-Muskegon-Holland, MI, MSA	3000	26	
	43	003	Michigan Allegan		20	005
		041	Kent			081
		061	Muskegon			121
		070	Ottawa			139
113			Great Falls, MT, MSA	3040		
	27		Montana		30	
		007	Cascade			013
114			Greeley, CO, PMSA	3060		
	06	0.50	Colorado		80	100
115		062	Weld	2000		123
115	50		Green Bay, WI, MSA	3080	55	
	50	005	Wisconsin Brown		55	009
116		005	GreensboroWinston-SalemHigh Point, NC, MSA	3120		009
110	34		North Carolina	3120	37	
	5 -	001	Alamance		<i>J</i> ,	001
		029	Davidson			057
		030	Davie			059
		034	Forsyth			067
		041	Guilford			081
		076	Randolph			151
		085	Stokes			169
110		099	Yadkin	2150		197
117	34		Greenville, NC, MSA	3150	37	
	34	074	North Carolina Pitt		3 /	147
118		0 / 4	Greenville-Spartanburg-Anderson, SC, MSA	3160		14/
110	41		South Carolina	3100	45	
		004	Anderson			007
		011	Cherokee			021
		023	Greenville			045
		039	Pickens			077
		042	Spartanburg			083
119	0.1		Hagerstown, MD, PMSA	3180	0.4	
	21	022	Maryland		24	043
120		022	Washington Hamilton-Middletown, OH, PMSA	3200		043
120	36		Ohio	3200	39	
	30	009	Butler		3,5	017
121			Harrisburg-Lebanon-Carlisle, PA, MSA	3240		
	39		Pennsylvania		42	
		021	Cumberland			041
		022	Dauphin			043
		038	Lebanon			075
100		050	Perry	2002		099
122	0.7		Hartford, CT, NECMA	3283	0.0	
	07	002	Connecticut Hartford		09	003
		004	Middlesex			003
		007	Tolland			013
123		50,	Hattiesburg, MS, MSA	3285		010
	25		Mississippi		28	
		018	Forrest			035
		037	Lamar			073
124			Hickory-Morganton, NC, MSA	3290		
	34	0.00	North Carolina		37	0.00
		002	Alexander			003
		012	Burke			023
		014	Caldwell			027
		018	Catawba			035

Primary and Metropolitan Statistical Areas Established in 1990 Page 12 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

			Puerto Rico			
Vital St			D/MCA Nove and Country Country	FIP	S Code	
P/MSA 125	State	County	P/MSA Name and County Components	P/MSA 3320	Stat	e Cnty
125	12		Honolulu, HI, MSA Hawaii	3320	15	
	12	002	Honolulu		13	003
126		002	Houma, LA, MSA	3350		003
	19		Louisiana		22	
		029	Lafourche			057
		055	Terrebonne			109
127	4.4		Houston, TX, PMSA	3360	4.0	
	44	036	Texas		48	071
		036	Chambers Fort Bend			071 157
		101	Harris			201
		146	Liberty			291
		170	Montgomery			339
		237	Waller			473
128	1.0		Huntington-Ashland, WV-KY-OH, MSA	3400	0.1	
	18	010	Kentucky		21	010
		010 022	Boyd Carter			019 043
		045	Greenup			089
	36	015	Ohio		39	005
		044	Lawrence			087
	49		West Virginia		54	
		006	Cabell			011
100		050	Wayne	2.4.4.0		099
129	01		Huntsville, AL, MSA	3440	01	
	01	042	Alabama Limestone		UΙ	083
		045	Madison			089
130		0 10	Indianapolis, IN, MSA	3480		005
	15		Indiana		18	
		006	Boone			011
		029	Hamilton			057
		030 032	Hancock Hendricks			059
		041	Johnson			063 081
		048	Madison			095
		049	Marion			097
		055	Morgan			109
101		073	Shelby	2500		145
131	16		Iowa City, IA, MSA	3500	19	
	10	052	Iowa Johnson		19	103
132		032	Jackson, MI, MSA	3520		103
132	23		Michigan	3320	26	
		038	Jackson			075
133			Jackson, MS, MSA	3560		
	25	0.05	Mississippi		28	0.40
		025 045	Hinds Madison			049 089
		061	Rankin			121
134		001	Jackson, TN, MSA	3580		121
-5-	43		Tennessee	3300	47	
		057	Madison			113
135			Jacksonville, FL, MSA	3600		
	10	010	Florida		12	010
		010 016	Clay Duval			019 031
		045	Nassau			089
		055	St. Johns			109
136			Jacksonville, NC, MSA	3605		
	34		North Carolina		37	
		067	Onslow			133

Primary and Metropolitan Statistical Areas Established in 1990 Page 13 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

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Vital St			D (MGR Name and Gameter Gameter		Codes	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	State	e Cnty
137	33		Jamestown, NY, MSA New York	3610	36	
	33	006			30	013
138		000	Chautauqua Janesville-Beloit, WI, MSA	3620		013
130	50		Wisconsin	3020	55	
	50	054	Rock		33	105
139		054	Jersey City, NJ, PMSA	3640		105
139	31		New Jersey	3040	34	
	31	009	Hudson		34	017
140		009	Johnson City-Kingsport-Bristol, TN-VA, MSA	3660		017
140	43		Tennessee	3000	47	
	13	010	Carter		1 /	019
		037	Hawkins			073
		082	Sullivan			163
		086	Unicoi			171
		090	Washington			179
	47	000	Virginia		51	110
	1,	015	Bristol city		31	520
		115	Scott			169
		129	Washington			191
141		100	Johnstown, PA, MSA	3680		
	39		Pennsylvania	3000	42	
	3,5	011	Cambria			021
		056	Somerset			111
142		000	Joplin, MO, MSA	3710		
	26		Missouri	3,10	29	
		049	Jasper			097
		073	Newton			145
143			Kalamazoo-Battle Creek, MI, MSA	3720		
	23		Michigan		26	
		013	Calhoun			025
		039	Kalamazoo			077
		080	Van Buren			159
144			Kankakee, IL, PMSA	3740		
	14		Illinois		17	
		046	Kankakee			091
145			Kansas City, MO-KS, MSA	3760		
	17		Kansas		20	
		046	Johnson			091
		052	Leavenworth			103
		061	Miami			121
	0.5	105	Wyandotte		0.0	209
	26	010	Missouri		29	000
		019	Cass			037
		024	Clay			047
		025	Clinton			049
		048	Jackson			095
		054	Lafayette			107
		083	Platte			165
110		089	Ray	2000		177
146	50		Kenosha, WI, PMSA	3800	EE	
	50	030	Wisconsin		55	059
147		030	Kenosha	3810		059
14/	44		Killeen-Temple, TX, MSA	3010	48	
	44	014	Texas Bell		40	027
		050	Coryell			099

Primary and Metropolitan Statistical Areas Established in 1990 Page 14 Effective with 1994 and Adapted for Use by DVS United States

Puerto Rico Vital Statistics Codes FIPS Codes P/MSA State County 148 P/MSA Name and County Components $\mathtt{K}\underline{\mathtt{n}}\mathtt{oxville}\,,\ \mathtt{TN}\,,\ \mathtt{MSA}$ P/MSA State Cnty Tennessee Anderson Blount Knox 078 087 155 173 Loudon Sevier Union Kokomo, IN, MSA Indiana Howard Tipton La Crosse, WI-MN, MSA Minnesota Houston Wisconsin La Crosse Lafayette, LA, MSA Louisiana 055 097 Acadia Lafayette
St. Landry
St. Martin
Lafayette, IN, MSA
Indiana 049 Clinton Tippecanoe Lake Charles, LA, MSA Louisiana Calcasieu Lakeland-Winter Haven, FL, MSA Florida Polk Lancaster, PA, MSA Pennsylvania Lancaster Lansing-East Lansing, MI, MSA Michigan Clinton Eaton Ingham Laredo, TX, MSA Texas Webb Las Cruces, NM, MSA New Mexico Dona Ana Las Vegas, NV-AZ, MSA Arizona Mohave Nevada Clark Nve Lawrence, KS, MSA Kansas Douglas Lawton, OK, MSA Oklahoma Comanche

Primary and Metropolitan Statistical Areas Established in 1990 Page Effective with 1994 and Adapted for Use by DVS United States Puerto Rico 15

			Puerto Rico			
Vital Sta			- 4		Code	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	State	e Cnty
162	20		Lewiston-Auburn, ME, NECMA Maine	4243	23	
	20	001	Androscoggin		43	001
163		001	Lexington, KY, MSA	4280		001
100	18		Kentucky	1200	21	
		009	Bourbon			017
		025	Clark			049
		034	Fayette			067
		057 076	Jessamine Madison			113 151
		105	Scott			209
		120	Woodford			239
164			Lima, OH, MSA	4320		
	36		Ohio		39	
		002	Allen			003
165		006	Auglaize Lincoln, NE, MSA	4360		011
105	28		Nebraska	4300	31	
	20	055	Lancaster		JI	109
166		000	Little Rock-North Little Rock, AR, MSA	4400		
	04		Arkansas		05	
		023	Faulkner			045
		043	Lonoke			085 119
		060 063	Pulaski Saline			125
167		003	Longview-Marshall, TX, MSA	4420		123
	44		Texas		48	
		092	Gregg			183
		102	Harrison			203
168		230	Upshur	4480		459
100	05		Los Angeles-Long Beach, CA, PMSA California	4400	06	
	03	019	Los Angeles		00	037
169			Louisville, KY-IN, MSA	4520		
	15		Indiana		18	
		010	Clark			019
		022 031	Floyd Harrison			043 061
		072	Scott			143
	18	0 / 2	Kentucky		21	113
		015	Bullitt			029
		056	Jefferson			111
170		093	Oldham	4600		185
170	44		Lubbock, TX, MSA Texas	4600	48	
	11	152	Lubbock		40	303
171			Lynchburg, VA, MSA	4640		505
	47		Virginia		51	
		006	Amherst			009
		011 012	Bedford			019 515
		020	Bedford city Campbell			031
		076	Lynchburg city			680
172			Macon, GA, MSA	4680		
	11		Georgia		13	
		011	Bibb			021
		076 084	Houston			153 169
		111	Jones Peach			225
		143	Twiggs			289
173		-	Madison, WI, MSA	4720		
	50	010	Wisconsin		55	0.05
		013	Dane			025

Primary and Metropolitan Statistical Areas Established in 1990 Page 16 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

			Puerto Rico			
Vital St			7.00		Code	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	State	e Cnty
174	2.6		Mansfield, OH, MSA	4800	2.0	
	36	017	Ohio		39	022
		017	Crawford			033
175		070	Richland	4000		139
175	1.1		McAllen-Edinburg-Mission, TX, MSA	4880	4.0	
	44	108	Texas		48	215
176		108	Hidalgo Medford-Ashland, OR, MSA	4890		215
1/0	38			4090	41	
	30	015	Oregon		41	029
177		015	Jackson Molbourne Titugrille Delm Berr El MCA	4900		029
1//	10		Melbourne-Titusville-Palm Bay, FL, MSA Florida	4900	12	
	10	005	Brevard		12	009
178		005	Memphis, TN-AR-MS, MSA	4920		009
1/0	04		Arkansas	4920	05	
	04	018	Crittenden		0.5	035
	25	010	Mississippi		28	033
	23	017	De Soto		20	033
	43	017	Tennessee		47	033
	13	024	Fayette		1,	047
		079	Shelby			157
		084	Tipton			167
179		001	Merced, CA, MSA	4940		_ ,
	05		California		06	
	0.5	024	Merced		• •	047
180			Miami, FL. PMSA	5000		
	10		Miami, FL, PMSA Florida		12	
		013	Dade			025
181			Middlesex-Somerset-Hunterdon, NJ, PMSA	5015		
	31		New Jersey		34	
		010	Hunterdon			019
		012	Middlesex			023
		018	Somerset			035
182			Milwaukee-Waukesha, WI, PMSA	5080		
	50		Wisconsin		55	
		041	Milwaukee			079
		046	Ozaukee			089
		067	Washington			131
		068	Waukesha			133
183	0.4		Minneapolis-St. Paul, MN-WI, MSA	5120	0.5	
	24	000	Minnesota		27	0.00
		002	Anoka			003
		010	Carver			019
		013	Chisago			025
		019	Dakota			037
		027	Hennepin			053
		030	Isanti			059
		062	Ramsey			123
		070 071	Scott			139
		082	Sherburne Washington			141 163
		086				171
	50	000	Wright Wisconsin		55	1 /1
	50	048	Pierce		55	093
		056	St. Croix			109
184		0.50	Mobile, AL, MSA	5160		100
T0 T	01		Alabama	2100	01	
	J ±	002	Baldwin		0 1	003
		049	Mobile			097
185			Modesto, CA, MSA	5170		
	05		California		06	
		050	Stanislaus			099

Primary and Metropolitan Statistical Areas Established in 1990 Page 17 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

			Puerto Rico			
Vital Sta					Codes	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	State	Cnty
186	2.1		Monmouth-Ocean, NJ, PMSA	5190	2.4	
	31	012	New Jersey		34	005
		013 015	Monmouth			025 029
187		015	Ocean Monroe, LA, MSA	5200		029
107	19		Louisiana	3200	22	
	19	037	Ouachita			073
188		037	Montgomery, AL, MSA	5240		075
100	01		Alabama	3210	01	
	-	001	Autauga			001
		026	Elmore			051
		051	Montgomery			101
189			Muncie, IN, MSA	5280		
	15		Indiana		18	
100		018	Delaware			035
190	4.1		Myrtle Beach, SC, MSA	5330	4 =	
	41	006	South Carolina		45	0.51
191		026	Horry	5345		051
191	10		Naples, FL, MSA Florida	3343	12	
	10	011	Collier			021
192		011	Nashville, TN, MSA	5360		021
172	43		Tennessee	3300	47	
		011	Cheatham			021
		019	Davidson			037
		022	Dickson			043
		074	Robertson			147
		075	Rutherford			149
		083	Sumner			165
		094	Williamson			187
193		095	Wilson	5380		189
193	33		Nassau-Suffolk, NY, PMSA New York	5380	36	
	33	028	Nassau			059
		048	Suffolk			103
194		010	New Haven-Bridgeport-Stamford-Danbury-Waterbury,	5483		103
			CT, NECMA			
	07		Connecticut		09	
		001	Fairfield			001
		005	New Haven			009
195	0.77		New London-Norwich, CT, NECMA	5523	0.0	
	07	006	Connecticut		09	011
196		006	New London	5560		011
190	19		New Orleans, LA, MSA Louisiana	5560	22	
	19	026	Jefferson			051
		036	Orleans			071
		038	Plaquemines			075
		044	St. Bernard			087
		045	St. Charles			089
		047	St. James			093
		048	St. John the Baptist			095
		052	St. Tammany			103
197	2.2		New York, NY, PMSA	5600	26	
	33	0.20	New York		36	005
		029 038	New York city Putnam			005 079
		040	Rockland			079
		056	Westchester			119
		000	HED COILED CC1			

Primary and Metropolitan Statistical Areas Established in 1990 Page 18 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

			Puerto Rico			
Vital St			D/MCA Name and Country Comments		Code	
P/MSA 198	State	County	P/MSA Name and County Components Newark, NJ, PMSA	P/MSA 5640	Stat	e Cnty
190	31		New Jersey	3040	34	
	31	007	Essex		51	013
		014	Morris			027
		019	Sussex			037
		020	Union			039
100		021	Warren			041
199	2.2		Newburgh, NY-PA, PMSA	5660	2.0	
	33	034	New York		36	071
	39	034	Orange Pennsylvania		42	071
	37	052	Pike		12	103
200		032	Norfolk-Virginia Beach-Newport News, VA-NC, MSA	5720		103
	34		North Carolina		37	
		027	Currituck			053
	47		Virginia		51	
		026	Chesapeake city			550
		052	Gloucester			073
		058	Hampton city			650
		065 066	Isle of Wight			093 095
		081	James City Mathews			115
		087	Newport News city			700
		088	Norfolk city			710
		098	Poquoson city			735
		099	Portsmouth city			740
		123	Suffolk city			800
		127	Virginia Beach city			810
		132	Williamsburg city			830
201		136	York			199
201	05		Oakland, CA, PMSA California	5775	06	
	0.5	001	Alameda		00	001
		007	Contra Costa			013
202			Ocala, FL, MSA	5790		
	10		Florida		12	
		042	Marion			083
203			O <u>d</u> essa-Midland, TX, MSA	5800	4.0	
	44	068	Texas		48	125
		165	Ector Midland			135 329
204		103	Oklahoma City, OK, MSA	5880		329
201	37		Oklahoma	3000	40	
		009	Canadian			017
		014	Cleveland			027
		042	Logan			083
		044	McClain			087
		055	Oklahoma			109
205		063	Pottawatomie	F 0 1 0		125
205	48		Olympia, WA, PMSA Washington	5910	53	
	10	034	Thurston		55	067
206		001	Omaha, NE-IA, MSA	5920		007
	16		Iowa		19	
		078	Pottawattamie			155
	28		Nebraska		31	
		013	Cass			025
		028	Douglas			055
		077	Sarpy			153
207		089	Washington Orange County CA DMSA	5945		177
407	05		Orange County, CA, PMSA California	Jラ サ ン	06	
	0.5	030	Orange		00	059
			5± 6±-5			

Primary and Metropolitan Statistical Areas Established in 1990 Page 19 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

***'		a 1	Puerto Rico		~ 1	
Vital St			D/MCA Name and Country Comments		Codes	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	State	e Cnty
208	1.0		Orlando, FL, MSA	5960	10	
	10	025	Florida		12	0.00
		035	Lake			069
		048	Orange			095
		049	Osceola			097
		059	Seminole			117
209			Owensboro, KY, MSA	5990		
	18		Kentucky		21	
		030	Daviess			059
210			Panama City, FL, MSA	6015		
	10		Florida		12	
		003	Bay			005
211			Parkersburg-Marietta, WV-OH, MSA	6020		
	36		Ohio		39	
		084	Washington			167
	49		West Virginia		54	
		054	Wood			107
212			Pensacola, FL, MSA	6080		
	10		Florida		12	
		017	Escambia			033
		057	Santa Rosa			113
213			Peoria-Pekin, IL, MSA	6120		
	14		Illinois		17	
		072	Peoria			143
		090	Tazewell			179
		102	Woodford			203
214			Philadelphia, PA-NJ, PMSA	6160		200
211	31		New Jersey	0100	34	
	31	003	Burlington		J 1	005
		004	Camden			007
		008	Gloucester			015
		017	Salem			033
	39	017	Pennsylvania		42	033
	37	009	Bucks		12	017
		015	Chester			029
		023	Delaware			045
		046	Montgomery			091
		051	Philadelphia			101
215		031	Phoenix-Mesa, AZ, MSA	6200		101
410	03		Arizona	0200	04	
	0.5	008	Maricopa		0 1	013
		012	Pinal			021
216		O 1 2	Pine Bluff, AR, MSA	6240		021
210	04		Arkansas	0240	05	
	04	035	Jefferson		05	069
217		035		6280		009
217	39		Pittsburgh, PA, MSA	0200	42	
	39	000	Pennsylvania		42	002
		002 004	Allegheny			003
			Beaver			007
		010	Butler			019
		026	Fayette			051
		063	Washington			125
010		065	Westmoreland	(222		129
218	2.2		Pittsfield, MA, NECMA	6323	٥٢	
	22	000	Massachusetts		25	0.00
010		002	Berkshire	6400		003
219	0.0		Portland, ME, NECMA	6403	0.0	
	20	000	Maine		23	0.05
		003	Cumberland			005

Primary and Metropolitan Statistical Areas Established in 1990 Page 20 Effective with 1994 and Adapted for Use by DVS United States

			Puerto Rico			
Vital St	atistic	s Codes	rucico Rico	FTPS	Code	g
P/MSA		County	P/MSA Name and County Components	P/MSA		e Cnty
220	Doube	0041107	Portland-Vancouver, OR-WA, PMSA	6440	Doac	01107
	38		Oregon		41	
		003	Clackamas			005
		005	Columbia			009
		026	Multnomah			051
		034	Washington			067
		036	Yamhill			071
	48		Washington		53	
		006	Clark			011
221			Providence-Warwick-Pawtucket, RI, NECMA	6483		
	40		Rhode Island		44	
		001	Bristol			001
		002	Kent			003
		004	Providence			007
		005	Washington			009
222			Provo-Orem, UT, MSA	6520		
	45		Utah		49	
		025	Utah			049
223			Pueblo, CO, MSA	6560		
	06		Colorado		8 0	
		051	Pueblo			101
224			Punta Gorda, FL, MSA	6580		
	10		Florida		12	
		008	Charlotte			015
225			Racine, WI, PMSA	6600		
	50		Wisconsin		55	
		052	Racine			101
226			Raleigh-Durham-Chapel Hill, NC, MSA	6640		
	34	010	North Carolina		37	000
		019	Chatham			037
		032	Durham			063
		035	Franklin			069
		051	Johnston			101
		068	Orange			135
227		092	Wake	6660		183
221	40		Rapid City, SD, MSA	6660	10	
	42	0.51	South Dakota		46	100
228		051	Pennington	6600		103
228	39		Reading, PA, MSA	6680	42	
	39	006	Pennsylvania		42	011
229		006	Berks	6690		011
229	05		Redding, CA, MSA California	0090	06	
	05	045	Shasta		00	089
230		045		6720		069
430	29		Reno, NV, MSA Nevada	0/20	32	
	∆ <i>Э</i>	016	Washoe		24	031
231		010	Richland-Kennewick-Pasco, WA, MSA	6740		0.3.1
271	48		Washington	0740	53	
	-10	003	Benton		55	005
		011	Franklin			021
		011	I T (VIII) T T II			021

Primary and Metropolitan Statistical Areas Established in 1990 Page 21 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

*** 7 01		a 1	Puerto Rico	====	a 1	
Vital St			D/MGA Name and Gaustin Gammananta		Code	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	Stat	e Cnty
232	47		Richmond-Petersburg, VA, MSA	6760	г 1	
	4 /	000	Virginia		51	026
		023	Charles City			036
		027	Chesterfield			041
		030	Colonial Heights city			570
		037	Dinwiddie			053
		053	Goochland			075
		059	Hanover			085
		061	Henrico			087
		064 086	Hopewell city			670 127
		096	New Kent			730
			Petersburg city			145
		100 102	Powhatan Prince Coorgo			149
		102	Prince George Richmond city			760
233		100	Riverside-San Bernardino, CA, PMSA	6780		700
433	05		California	0780	06	
	0.5	033	Riverside		00	065
		036	San Bernardino			071
234		030	Roanoke, VA, MSA	6800		0 / 1
251	47		Virginia	0000	51	
	- /	014	Botetourt		31	023
		109	Roanoke			161
		110	Roanoke city			770
		114	Salem city			775
235			Rochester, MN, MSA	6820		
	24		Minnesota		27	
		055	Olmsted			109
236			Rochester, NY, MSA	6840		
	33		New York		36	
		018	Genesee			037
		024	Livingston			051
		026	Monroe			055
		033	Ontario			069
		035	Orleans			073
000		055	Wayne	6000		117
237	1.4		Rockford, IL, MSA	6880	1 7	
	14	004	Illinois		17	0.07
		004 071	Boone			007 141
		101	Ogle			201
238		101	Winnebago Rocky Mount, NC, MSA	6895		201
230	34		North Carolina	0093	37	
	21	033	Edgecombe		57	065
		064	Nash			127
239		001	Sacramento, CA, PMSA	6920		127
207	05		California	0,20	06	
		009	El Dorado			017
		031	Placer			061
		034	Sacramento			067
240			Saginaw-Bay City-Midland, MI, MSA	6960		
	23		Michigan		26	
		009				017
		056	Bay Midland			111
		073	Saginaw			145
241			St. Cloud, MN, MSA	6980		
	24		Minnesota		27	
		005	Benton			009
0.40		073	Stearns	F000		145
242	0.6		St. Joseph, MO, MSA	7000	0.0	
	26	000	Missouri		29	002
		002	Andrew			003
		011	Buchanan			021

Primary and Metropolitan Statistical Areas Established in 1990 Page Effective with 1994 and Adapted for Use by DVS United States Puerto Rico 22

				Puerto Rico			
Vital Sta			D /MG3 N	Q		Code	
P/MSA 243	State	County	P/MSA Name and County		P/MSA 7040	State	e Cnty
243	14		St. Louis, MO-IL, MSA Illinois		7040	17	
		014	Clinton			Ι,	027
		042	Jersey				083
		060	Madison				119
		067	Monroe				133
		082	St. Clair				163
	26		Missouri			29	
		036	Franklin				071
		050 057	Jefferson Lincoln				099 113
		092	St. Charles				183
		095	St. Louis				189
		096	St. Louis city				510
		110	Warren				219
244			Salem, OR, PMSA		7080		
	38		Oregon			41	
		024	Marion				047
0.45		027	Polk		7100		053
245	05		Salinas, CA, MSA California		7120	06	
	0.5	027	Monterey			00	053
246		027	Salt Lake City-Ogden,	UT. MSA	7160		033
210	45		Utah	01, 11011	, 200	49	
		006	Davis				011
		018	Salt Lake				035
0.45		029	Weber		5000		057
247	4.4		San Angelo, TX, MSA		7200	4.0	
	44	226	Texas Tom Green			48	451
248		220	San Antonio, TX, MSA		7240		431
240	44		Texas		7240	48	
		015	Bexar			10	029
		046	Comal				091
		094	Guadalupe				187
0.40		247	Wilson		F200		493
249	05		San Diego, CA, MSA California		7320	06	
	0.5	037	San Diego			00	073
250		037	San Francisco, CA, PM	SA	7360		075
	05		California			06	
		021	Marin				041
		038	San Francisco				075
0.51		041	San Mateo		E 400		081
251	05		San Jose, CA, PMSA California		7400	06	
	0.5	043	Santa Clara			00	085
252		043		adero-Paso Robles, CA, MSA	7460		005
	05		California	aacro 1 abo 1102202, 011, 11211	, 100	06	
		040	San Luis Obispo				079
253			Santa Barbara-Santa M	aria-Lompoc, CA, MSA	7480		
	05	0.40	California			06	000
254		042	Santa Barbara	o CA DMCA	7405		083
254	05		Santa Cruz-Watsonvill California	e, CA, PMSA	7485	06	
	0.5	044	Santa Cruz			00	087
255		011	Santa Fe, NM, MSA		7490		007
255	32		New Mexico		, 100	35	
		016	Los Alamos			-	028
		027	Santa Fe				049

Primary and Metropolitan Statistical Areas Established in 1990 Page 23 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

77'1 7 01		a 1	Puerto Rico		a 1	
Vital St					Codes	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	State	cnty
256			Santa Rosa, CA, PMSA	7500		
	05		California		06	
		049	Sonoma			097
257			Sarasota-Bradenton, FL, MSA	7510		
23 /	10		Florida	7310	12	
	10	041	Manatee		12	081
0.50		058	Sarasota	5500		115
258			Savannah, GA, MSA	7520		
	11		Georgia		13	
		015	Bryan			029
		025	Chatham			051
		051	Effingham			103
259		031	ScrantonWilkes-BarreHazleton, PA, MSA	7560		103
237	39			7500	42	
	33	010	Pennsylvania		44	027
		019	Columbia			037
		035	Lackawanna			069
		040	Luzerne			079
		066	Wyoming			131
260			Seattle-Bellevue-Everett, WA, PMSA	7600		
	48		Washington		53	
	10	015	Island		33	029
		017	King			033
0.61		031	Snohomish	E 610		061
261			Sharon, PA, MSA	7610		
	39		Pennsylvania		42	
		043	Mercer			085
262			Sheboygan, WI, MSA	7620		
	50		Wisconsin		55	
	5 0	060	Sheboygan			117
263		000	Sherman-Denison, TX, MSA	7640		 /
203	44			7040	48	
	44	0.01	Texas		48	101
		091	Grayson			181
264			Shreveport-Bossier City, LA, MSA	7680		
	19		Louisiana		22	
		008	Bossier			015
		009	Caddo			017
		060	Webster			119
265		000	Sioux City, IA-NE, MSA	7720		
200	16			7720	19	
	Τ.0	007	Iowa		エフ	102
	2.0	097	Woodbury		2.1	193
	28	0.00	Nebraska		31	0.40
		022	Dakota			043
266			Sioux Falls, SD, MSA	7760		
	42		South Dakota		46	
		041	Lincoln			083
		049	Minnehaha			099
267		5 17	South Bend, IN, MSA	7800		
207	15			7000	10	
	тэ	071	Indiana		18	1 1 1
		071	St. Joseph			141
268			Spokane, WA, MSA	7840		
	48		Washington		53	
		032	Spokane			063
269			Springfield, IL, MSA	7880		
	14		Illinois		17	
		065	Menard		-,	129
		084	Sangamon			167
		004	Satigation			10/

Primary and Metropolitan Statistical Areas Established in 1990 Page Effective with 1994 and Adapted for Use by DVS United States Puerto Rico 24

		~ 1	Puerto Rico		~ ~ 7	
		cs Codes			S Cod	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	Sta	te Cnty
270			Springfield, MO, MSA	7920		
	26		Missouri		29	
		022	Christian			043
		039	Greene			077
		113	Webster			225
271		113	Springfield, MA, NECMA	8003		225
2/1	2.2			8003	2.5	
	22	0.017	Massachusetts		25	012
		007	Hampden			013
		008	Hampshire			015
272			State College, PA, MSA	8050		
	39		Pennsylvania		42	
		014	Centre			027
273			Steubenville-Weirton, OH-WV, MSA	8080		
2,0	36		Ohio	0000	39	
	50	041	Jefferson		55	081
	49	041	West Virginia		54	001
	43	005			34	000
		005	Brooke			009
		015	Hancock			029
274			Stockton-Lodi, CA, MSA	8120		
	05		California		06	
		039	San Joaquin			077
275			Sumter, SC, MSA	8140		
	41		South Carolina		45	
		043	Sumter		10	085
276		043		8160		003
270	33		Syracuse, NY, MSA	0100	36	
	33	005	New York		30	011
		005	Cayuga			011
		025	Madison			053
		032	Onondaga			067
		036	Oswego			075
277			Tacoma, WA, PMSA	8200		
	48		Washington		53	
		027	Pierce		0.0	053
278		027	Tallahassee, FL, MSA	8240		033
270	10		Florida	0240	12	
	10	020			12	039
			Gadsden			
		037	Leon			073
279			Tampa-St. Petersburg-Clearwater, FL, MSA	8280		
	10		Florida		12	
		027	Hernando			053
		029	Hillsborough			057
		051	Pasco			101
		052	Pinellas			103
280		032	Terre Haute, IN, MSA	8320		103
200	15		Indiana	0320	18	
	13	011			10	021
			Clay			
		083	Vermillion			165
281		084	Vigo			167
201			Texarkana, TX-Texarkana, AR, MSA	8360		
	04		Arkansas		05	
		046	Miller			091
	44		Texas		48	
		019	Bowie			037
282		010	Toledo, OH, MSA	8400		037
202	36		Ohio	0400	39	
	30	026			33	0 E 1
		026	Fulton			051
		048	Lucas			095
		087	Wood			173
283			Topeka, KS, MSA	8440		
	17		Kansas		20	
		089	Shawnee			177

Primary and Metropolitan Statistical Areas Established in 1990 Page Effective with 1994 and Adapted for Use by DVS United States Puerto Rico 25

77 ² + - 1 O+			racies kies	DIDG	a - 1 -	
Vital St					Codes	
P/MSA	State	County	P/MSA Name and County Components	P/MSA	State	e Cnty
284			Trenton, NJ, PMSA	8480		
	31		New Jersey		34	
	3 ±	011	Mercer		J 1	021
285		011		0.5.2.0		021
285	0.0		Tucson, AZ, MSA	8520	0.4	
	03		Arizona		04	
		011	Pima			019
286			Tulsa, OK, MSA	8560		
200	37		Oklahoma	0000	40	
	57	019	Creek		40	037
		057	Osage			113
		066	Rogers			131
		072	Tulsa			143
		073	Wagoner			145
287		0 7 3	Tuscaloosa, AL, MSA	8600		115
207	01			8000	0.1	
	UΙ	0.60	Alabama		01	105
		063	Tuscaloosa			125
288			Tyler, TX, MSA	8640		
	44		Texas		48	
		212	Smith			423
289		212	Utica-Rome, NY, MSA	8680		123
209	2.2			0000	2.0	
	33		New York		36	
		021	Herkimer			043
		031	Oneida			065
290			Vallejo-Fairfield-Napa, CA, PMSA	8720		
200	05		California	0720	06	
	0.5	000			00	0.5.5
		028	Napa			055
		048	Solano			095
291			Ventura, CA, PMSA	8735		
	0.5		California		06	
		056	Ventura			111
292		030	Victoria, TX, MSA	8750		
232	4.4			6730	4.0	
	44		Texas		48	
		235	Victoria			469
293			Vineland-Millville-Bridgeton, NJ, PMSA	8760		
	31		New Jersey		34	
		006	Cumberland			011
294		000	Visalia-Tulare-Porterville, CA, MSA	8780		011
294	0.5			0/00	0.6	
	05		California		06	
		054	Tulare			107
295			Waco, TX, MSA	8800		
	44		Texas		48	
		155	McLennan			309
		± J J	110110111011			507

Primary and Metropolitan Statistical Areas Established in 1990 Page Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

26

			Puerto Rico			
Vital St			D/MGA Name and Gaustin Company		Code	
P/MSA 296	State	County	P/MSA Name and County Components Washington, DC-MD-VA-WV, PMSA	P/MSA 8840	State	e Cnty
290	0.9		Dist. of Columbia	0040	11	
	0,5	001	District of Columbia			001
	21	001	Maryland		24	001
		005	Calvert			009
		009	Charles			017
		011	Frederick			021
		016	Montgomery			031
		017	Prince George's			033
	47	0.00	Virginia		51	F10
		003	Alexandria city			510
		008 028	Arlington Clarke			013 043
		020	Culpeper			043
		040	Fairfax			059
		041	Fairfax city			600
		042	Falls Church city			610
		043	Fauguier			061
		049	Fredericksburg city			630
		068	King George			099
		073	Loudoun			107
		078	Manassas city			683
		079	Manassas Park city			685
		103 120	Prince William			153 177
		121	Spotsylvania Stafford			179
		128	Warren			187
	49	120	West Virginia		54	107
		002	Berkeley			003
		019	Jefferson			037
297			Waterloo-Cedar Falls, IA, MSA	8920		
	16	000	Iowa		19	010
200		007	Black Hawk	0040		013
298	50		Wausau, WI, MSA	8940	55	
	50	037	Wisconsin Marathon		55	073
299		037	West Palm Beach-Boca Raton, FL, MSA	8960		075
200	10		Florida	0000	12	
		050	Palm Beach			099
300			Wheeling, WV-OH, MSA	9000		
	36		Ohio		39	
	4.0	007	Belmont		- 4	013
	49	0.26	West Virginia		54	0.51
		026 035	Marshall Ohio			051 069
301		033	Wichita, KS, MSA	9040		009
301	17		Kansas	2040	20	
		800	Butler			015
		040	Harvey			079
		087	Sedgwick			173
302			Wichita Falls, TX, MSA	9080		
	44	0.05	Texas		48	0.00
		005	Archer			009
303		243	Wichita Williamsport, PA, MSA	9140		485
303	39		Pennsylvania	ンエヨロ	42	
		041	Lycoming		14	081
304			Wilmington-Newark, DE-MD, PMSA	9160		001
	08		Delaware		10	
		002	New_Castle			003
	21	0.00	Maryland		24	015
		008	Cecil			015

Primary and Metropolitan Statistical Areas Established in 1990 Page 27 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

				Puerto Rico			
Vital Sta	atistic	s Codes			FIPS	Codes	3
P/MSA	State	County	P/MSA Name and County	Components	P/MSA	State	e Cnty
305			Wilmington, NC, MSA		9200		
	34		North Carolina			37	
	J _	010	Brunswick			٠,	019
		065	New Hanover				129
306		003	Yakima, WA, MSA		9260		127
300	48		Washington		2200	53	
	40	039	Yakima			55	077
207		039			0070		0 / /
307	٥٦		Yolo, CA, PMSA		9270	0.0	
	05	0.57	California			06	110
200		057	Yolo		0000		113
308			York, PA, MSA		9280		
	39		Pennsylvania			42	
		067	York				133
309			Youngstown-Warren, OH	, MSA	9320		
	36		Ohio			39	
		015	Columbiana				029
		050	Mahoning				099
		078	Trumbull				155
310			Yuba City, CA, MSA		9340		
	05		California			06	
		051	Sutter				101
		058	Yuba				115
311			Yuma, AZ, MSA		9360		-
	03		Arizona			04	
	0.0	015	Yuma			V -	027
		0 1 0	I ama				02,

List of Primary Metropolitan Statistical Areas and their Component Counties For the United States and Puerto Rico

Primary and Metropolitan Statistical Areas Established in 1990 Page 28 Effective with 1994 and Adapted for Use by DVS United States Puerto Rico

77 ¹ + - 1 O+				Puerto Rico	HTDG	a - 1 -	
Vital St			D/MCA Name and Country	C		Code	
P/MSA	State	County	P/MSA Name and County	Components	P/MSA	Stat	e Cnty
001	52		Aguadilla, PR, MSA Puerto Rico		0060	72	
	34	002	Aguada			1 4	003
		003	Aguadilla				005
		051	Moca				099
002		031	Arecibo, PR, PMSA		0470		000
002	52		Puerto Rico		0170	72	
	32	007	Arecibo			, -	013
		014	Camuy				027
		034	Hatillo				065
003		001	Caguas, PR, PMSA		1310		000
	52		Puerto Rico			72	
		013	Caguas				025
		018	Cayey				035
		021	Cidra				041
		033	Gurabo				063
		066	San Lorenzo				129
004			Mauaguez, PR, MSA		4840		
	52		Puerto Rico			72	
		006	Anasco				011
		012	Cabo Rojo				023
		035	Hormigueros				067
		050	Mayaguez				097
		062	Sabana Grande				121
0.0.5		064	San German		6260		125
005	F 0		Ponce, PR, MSA		6360	70	
	52	021	Puerto Rico			72	0.50
		031 039	Guayanilla Juana Diaz				059 075
		057	Penuelas				111
		058	Ponce				113
		076	Villalba				149
		078	Yauco				153
006		070	San Juan-Bayamon, PR,	PMSA	7440		133
000	52		Puerto Rico	111011	, 110	72	
	_	004	Aquas Buenas				007
		009	Barceloneta				017
		011	Bayamon				021
		015	Canovanas				029
		016	Carolina				031
		017	Catano				033
		019	Ceiba _.				037
		023	Comerio				045
		024	Corozal				047
		026	Dorado				051
		027	Fajardo				053
		028	Florida				054
		032	Guaynabo				061
		036	Humacao				069
		040 044	Juncos				077
		045	Las Piedras				085 087
		046	Loiza Luquillo				089
		047	Manati				091
		052	Morovis				101
		053	Naguabo				103
		054	Naranjito				105
		061	Rio Grande				119
		065	San Juan				127
		069	Toa Alta				135
		070	Toa Baja				137
		071	Trujilĺo Alto				139
		073	Vegā Alta				143
		074	Vega Baja				145
		077	Yabucoa				151

TECHNICAL APPENDIX FROM

VITAL STATISTICS OF THE UNITED STATES

1998

NATALITY

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

CENTERS FOR DISEASE CONTROL AND PREVENTION NATIONAL CENTER FOR HEALTH STATISTICS

Hyattsville, Maryland: March 2000

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A copy of the technical appendix may be obtained by contacting the National Center for Health Statistics, Reproductive Statistics Branch at 301-458-4111.

For a list of reports published by the National Center for Health Statistics contact:

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Internet:www.cdc.gov/nchswww/

Definition of live birth
History of birth-registration area
Sources of data
Natality statistics
Standard Certificate of Live Birth
Classification of data
Classification by occurrence and residence
Geographic classification
Race or national origin
Age of mother
Age of father
Live-birth order and parity
Date of last live birth
Educational attainment
Marital status
Place of delivery and attendant at birth
Birthweight
Period of gestation
Month of pregnancy prenatal care began
Number of prenatal visits
Apgar score

-	Tobacco and alcohol use during pregnancy	12
,	Weight gained during pregnancy	13
]	Medical risk factors for this pregnancy	13
	Obstetric procedures	14
•	Complications of labor and/or delivery	14
	Abnormal conditions of the newborn	15
•	Congenital anomalies of child	15
1	Method of delivery	16
]	Hispanic parentage	17
Qualit	y of data	17
•	Completeness of registration	17
•	Completeness of reporting	18
•	Quality control procedures	18
1	Random variation and significance testing for natality data	18
Comp	utation of rates and other measures	25
]	Population bases	25
]	Net census undercounts and overcounts	28
•	Cohort fertility tables	28
	Age-sex-adjusted birth rates	29
5	Total fertility rate	29
1	Intrinsic vital rates	29
	Seasonal adjustment of rates	29
	Computation of percents, medians, and means	29
Refere	Prices	31

т.		
Н1	α 11	re
1 1	Ľu	

	U.S. Standard Certificate of Live Birth: 1989 Revision	33
A.	Percent of birth records on which specified items were not stated: United States, each State, and Territory, 1998	35
B.	Births by State of Occurrence and Residence for Births Occurring in the 50 States and the District of Columbia, 1998	37
C.	Lower and upper 95 percent confidence limit factors for a birth rate based on a Poisson variable of 1-99 births	38
D.	Sources for the resident population and population including Armed Forces abroad: Birth- and death-registration States, 1900-32, and United States, 1900-98	39
E.	Ratio of census-level resident population adjusted for estimated net census undercount by age, sex, and race: United States, April 1, 1990	40
Popu	ulation tables	
4-1.	Population of birth- and death-registration States, 1900-32, and United States, 1900-98	41
4-2.	Estimated population of the United States, by age, race, and sex: July 1, 1998	42
4-3.	Estimated total population and female population aged 15-44 years: United States, each division, State, and Territory: July 1, 1998	43

Definition of live birth

Every product of conception that gives a sign of life after birth, regardless of the length of the pregnancy, is considered a live birth. This concept is included in the definition set forth by the World Health Organization (1):

Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered liveborn.

This definition distinguishes in precise terms a live birth from a fetal death (see the section on fetal deaths in the Technical Appendix of volume II, *Vital Statistics of the United States*). In the interest of comparable natality statistics, both the Statistical Commission of the United Nations and the National Center for Health Statistics (NCHS) have adopted this definition (2,3).

History of birth-registration area

The national birth-registration area was proposed in 1850 and established in 1915. By 1933 all 48 States and the District of Columbia were participating in the registration system. The organized territories of Hawaii and Alaska were admitted in 1929 and 1950, respectively; data from these areas were prepared separately until they became States--Alaska in 1959 and Hawaii in 1960. Currently the birth-registration system of the United States covers the 50 States, the District of Columbia, the independent registration area of New York City, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands. However, in the statistical tabulations, "United States" refers only to the aggregate of the 50 States (including New York City) and the District of Columbia.

The original birth-registration area of 1915 consisted of 10 States and the District of Columbia. The growth of this area is indicated in table 4-1. This table also presents for each year through 1932 the estimated midyear population of the United States and of those States included in the registration system.

Because of the growth of the area for which data have been collected and tabulated, a national series of geographically comparable data before 1933 can be obtained only by estimation. Annual estimates of births have been prepared by P. K. Whelpton for 1909-34 (4). These estimates include adjustments for underregistration and for States that were not part of the birth-registration area before 1933.

Sources of data

Natality statistics

Since 1985 natality statistics for all States and the District of Columbia have been based on information from the total file of records. The information is received on computer data tapes coded by the States and provided to NCHS through the Vital Statistics Cooperative Program. NCHS receives these tapes from the registration offices of all States, the District of Columbia, and New York City. Information for Puerto Rico is also received on computer tapes through the Vital Statistics Cooperative Program. Information for the Virgin Islands and Guam is obtained from microfilm copies of original birth certificates and is based on the total file of records for all years. Data from American Samoa first became available in 1997. Data from the Commonwealth of the Northern Mariana Islands (referred to as Northern Marianas) first became available in 1998. Similar to data from the Virgin Islands and Guam, the data are obtained from microfilm copies of original birth certificates and are based on the total file of records.

Birth statistics for years prior to 1951 and for 1955 are based on the total file of birth records. Statistics for 1951-54, 1956-66, and 1968-71 are based on 50-percent samples except for data for Guam and the Virgin Islands, which are based on all records filed. During the processing of the 1967 data the sampling rate was reduced from 50 percent to 20 percent. For details of this procedure and its consequences for the 1967 data see pages 3-9 to 3-11 in volume I of *Vital Statistics of the United States*, 1967. From 1972 to 1984 statistics are based on all records filed in the States submitting computer tapes and on a 50-percent sample of records in all other States.

Information for years prior to 1970 for Puerto Rico, the Virgin Islands, and Guam is published in the annual vital statistics reports of the Department of Health of the Commonwealth of Puerto Rico, the Department of Public Health of the Virgin Islands, the Department of Public Health and Social Services of the Government of Guam, and in selected *Vital Statistics of the United States* annual reports.

U.S. natality data are limited to births occurring within the United States, including those occurring to U.S. residents and nonresidents. Births to nonresidents of the United States have been excluded from all tabulations by place of residence beginning in 1970 (for further discussion see "Classification by occurrence and residence"). Births occurring to U.S. citizens outside the United States are not included in any tabulations in this report. Similarly the data for Puerto Rico, the Virgin Islands, Guam, and American Samoa are limited to births registered in these areas.

Standard Certificate of Live Birth

The U.S. Standard Certificate of Live Birth, issued by the Public Health Service, has served for many years as the principal means of attaining uniformity in the content of the documents used to collect information on births in the United States. It has been modified in each State to the extent required by the particular State's needs or by special provisions of the State's vital statistics law. However, most State certificates conform closely in content to the standard certificate.

The first standard certificate of birth was developed in 1900. Since then, it has been revised periodically by the national vital statistics agency through consultation with State health officers and registrars; Federal agencies concerned with vital statistics; national, State, and county medical societies; and others working in public health, social welfare, demography, and insurance. This procedure has assured careful evaluation of each item for its current and future usefulness for legal, medical, demographic, and research purposes. New items have been added when necessary, and old

items have been modified to ensure better reporting or, in some cases, dropped when their usefulness appeared to be limited.

1989 revision--Effective January 1, 1989, a revised U.S. Standard Certificate of Live Birth (figure 4-A) replaced the 1978 revision. This revision provided a wide variety of new information on maternal and infant health characteristics, representing a significant departure from previous versions in both content and format. The most significant format change was the use of check boxes to obtain detailed medical and health information about the mother and child. It has been demonstrated that this format produces higher quality and more complete information than do open-ended items.

The reformatted items included "Medical Risk Factors for This Pregnancy," which combines the former items "Complications of Pregnancy" and "Concurrent Illnesses or Conditions Affecting the Pregnancy." "Complications of Labor and/or Delivery" and "Congenital Anomalies of Child" also have been revised from the open-ended format. For each of these items at least 15 specific conditions have been identified.

Several new items were added to the revised certificate. Included are items to obtain information on tobacco and alcohol use during pregnancy, weight gain during pregnancy, obstetric procedures, method of delivery, and abnormal conditions of the newborn. These items can be used to monitor the health practices of the mother that can affect pregnancy and the use of technology in childbirth, and to identify babies with specific abnormal conditions. When combined with other socioeconomic and health data, these items provide a wealth of information relevant to the etiology of low birth weight and other adverse pregnancy outcomes.

Another modification was the addition of a Hispanic identifier for the mother and father. Although NCHS had recommended that States add items to identify the Hispanic or ethnic origin of the newborn's parents, concurrent with the 1978 revision of the U.S. Standard Certificate of Live Birth and reported data from the cooperating States since that year, the item was new to the U.S. Standard Certificate for 1989.

The 1989 revised certificate also provided more detail than previously requested on the birth attendant and place of birth. This permits a more in-depth analysis of the number and characteristics of births by attendant and type of facility and a comparison of differences in outcome. For further discussion see individual sections for each item.

Classification of data

One of the principal values of vital statistics data is realized through the presentation of rates that are computed by relating the vital events of a class to the population of a similarly defined class. Vital statistics and population statistics, therefore, must be classified according to similarly defined systems and tabulated in comparable groups. Even when the variables common to both, such as geographic area, age, race, and sex, have been similarly classified and tabulated, differences between the enumeration method of obtaining population data and the registration method of obtaining vital statistics data may result in significant discrepancies.

The general rules used to classify geographic and personal items for live births are set forth in "Vital Statistics Classification and Coding Instructions for Live Birth Records, 1998," *NCHS Instruction Manual*, Part 3a. The classification of certain important items is discussed in the following pages. See table A for a listing of items and the percent of records that were not stated for each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and the Northern Marianas.

Classification by occurrence and residence

Births to U.S. residents occurring outside this country are not reallocated to the United States. In tabulations by place of residence, births occurring within the United States to U.S. citizens and to resident aliens are allocated to the usual place of residence of the mother in the United States, as reported on the birth certificate. Beginning in 1970 births to nonresidents of the United States occurring in the United States are excluded from these tabulations. From 1966 to 1969 births occurring in the United States to mothers who were nonresidents of the United States were considered as births to residents of the exact place of occurrence; in 1964 and 1965 all such births were allocated to "balance of county" of

occurrence even if the birth occurred in a city. The change in coding beginning in 1970 to exclude births to nonresidents of the United States from residence data significantly affects the comparability of data with years before 1970 only for Texas.

For the total United States the tabulations by place of residence and by place of occurrence are not identical. Births to nonresidents of the United States are included in data by place of occurrence but excluded from data by place of residence, as previously indicated. See table B for the number of births by residence and occurrence for the 50 States and the District of Columbia for 1998.

Residence error--A nationwide test of birth-registration completeness in 1950 provided measures of residence error for natality statistics. According to this test, errors in residence reporting for the country as a whole tend to overstate the number of births to residents of urban areas and to understate the number of births to residents of other areas. This tendency has assumed special importance because of a concomitant development--the increased utilization of hospitals in cities by residents of nearby places--with the result that a number of births are erroneously reported as having occurred to residents of urban areas. Another factor that contributes to this overstatement of urban births is the customary procedure of using "city" addresses for persons living outside the city limits.

Incomplete residence--Beginning in 1973 where only the State of residence is reported with no city or county specified and the State named is different from the State of occurrence, the birth is allocated to the largest city of the State of residence. Before 1973 such births were allocated to the exact place of occurrence.

Geographic classification

The rules followed in the classification of geographic areas for live births are contained in the instruction manual mentioned previously. The geographic code structure for 1998 is given in another manual, "Vital Records Geographic Classification, 1994," *NCHS Instruction Manual*, Part 8.

United States--In the statistical tabulations, "United States" refers only to the aggregate of the 50 States and the District of Columbia. Alaska has been included in the U.S. tabulations since 1959 and Hawaii since 1960.

Metropolitan statistical areas--The metropolitan statistical areas and primary metropolitan statistical areas (MSA's and PMSA's) used in this report are those established by the U.S. Office of Management and Budget as of April 1, 1990, and used by the U.S. Bureau of the Census (5) except in the New England States.

Except in the New England States, an MSA has either a city with a population of at least 50,000, or a Bureau of the Census urbanized area of at least 50,000 and a total MSA population of at least 100,000. A PMSA consists of a large urbanized county, or cluster of counties, that demonstrates very strong internal economic and social links and has a population over 1 million. When PMSA's are defined, the large area of which they are component parts is designated a Consolidated Metropolitan Statistical Area (CMSA) (6).

In the New England States the U.S. Office of Management and Budget uses towns and cities rather than counties as geographic components of MSA's and PMSA's. NCHS cannot, however, use this classification for these States because its data are not coded to identify all towns. Instead, the New England County Metropolitan Areas (NECMA's) are used. These areas are established by the U.S. Office of Management and Budget (7) and are made up of county units.

Metropolitan and nonmetropolitan counties— Independent cities and counties included in MSA's and PMSA's or NECMA's are included in data for metropolitan counties; all other counties are classified as nonmetropolitan.

Population-size groups--Beginning in 1994 vital statistics data for cities and certain other urban places have been classified according to the population enumerated in the 1990 Census of Population. Data are available for individual cities and other urban places of 100,000 or more population. Data for the remaining areas not separately identified are shown in the tables under the heading "Balance of area" or "Balance of county." Classification of areas for 1982-93 was determined by the population enumerated in the 1980 Census of Population. As a result of changes in the enumerated population between 1980 and 1990, some urban places identified in previous reports are no longer included, and a number of other urban places have been added.

Urban places other than incorporated cities for which vital statistics data are shown in this report include the following:

- Each town in New England, New York, and Wisconsin and each township in Michigan, New Jersey, and Pennsylvania that had no incorporated municipality as a subdivision and had either 25,000 inhabitants or more, or a population of 10,000 to 25,000 and a density of 1,000 persons or more per square mile.
- Each county in States other than those indicated above that had no incorporated municipality within its boundary and had a density of 1,000 persons or more per square mile. (Arlington County, Virginia, is the only county classified as urban under this rule.)
- C Each place in Hawaii with 10,000 or more population. (There are no incorporated cities in Hawaii.)

Race or national origin

Beginning with the 1989 data year birth data are tabulated primarily by race of mother. In 1988 and prior years the race or national origin shown in tabulations was that of the newborn child. However, beginning with the 1992 issue of *Vital Statistics of the United States, Volume I, Natality*, trend data for years beginning with 1980 have been retabulated by race of mother. The race of the child was determined for statistical purposes by an algorithm based on the race of the mother and father as reported on the birth certificate. When the parents were of the same race, the race of the child was assigned to the race of the parents. When the parents were of different races and one parent was white, the child was assigned to the race of the father, with one exception--if either parent was Hawaiian, the child was assigned to Hawaiian. If race was missing for one parent, the child was assigned the race of the parent for whom it was reported. When information on race was missing for both parents, the race of the child was considered not stated and the birth was allocated according to rules discussed on page 4 of the Technical Appendix, volume I, *Vital Statistics of the United States*, 1988. In 1989 the criteria for reporting the race of the parents did not change and continues to reflect the response of the informant (usually the mother).

The most important factor influencing the decision to tabulate births by race of the mother was the decennial revision of the U.S. Standard Certificate of Live Birth in 1989. This revision included many more health questions that are directly associated with the mother, including alcohol and tobacco use, weight gain during pregnancy, medical risk factors, obstetric procedures, complications of labor and/or delivery, and method of delivery. Additionally, many of the other items that have been on the birth certificate for more than two decades also relate directly to the mother, for example, marital status, education level, and receipt of prenatal care. It is more appropriate to use the race of the mother than the race of the child in tabulating these items.

A second factor has been the increasing incidence of interracial parentage. In 1998, 5.3 percent of births were to parents of different races, more than double the percent in 1977 (2.0 percent). More than half of these births were to white mothers and fathers of another race (55 percent in 1998). There have been two major consequences of the increasing interracial parentage. One is the effect on birth rates by race. The number of white births under the former procedures has been arbitrarily limited to infants whose parents were both white (or one parent if the race of only one parent was reported). At the same time, the number of births of other races has been arbitrarily increased to include all births to white mothers and fathers of other races. Thus, prior to 1989, if race of mother had been used, birth rates per 1,000 white women in a given age group would have been higher, while comparable rates for black women and women of other races would have been lower. The other consequence of increasing interracial parentage is the impact on the racial differential in various characteristics of births, particularly in cases where there is generally a large racial disparity, such as the incidence of low birthweight. In this instance, the racial differential is larger when the data are tabulated by race of mother rather than by race of child. The same effect has been noted for characteristics such as nonmarital childbearing, preterm births, late or no prenatal care, and low educational attainment of mother.

The third factor influencing the change is the growing proportion of births with race of father not stated, 14 percent in 1998. Although this proportion has stabilized and declined slightly in the 1990's, it is still higher than in 1978, 11

percent. The high proportion of records with the father's race not reported reflects the increase in the proportion of births to unmarried women; in many cases no information is reported on the father. These births were already assigned the race of the mother because there is no alternative. Tabulating births by race of mother provides a more uniform approach, rather than a necessarily arbitrary combination of parental races.

The change in the tabulation of births by race presents some problems when analyzing birth data by race, particularly trend data. The problem is likely to be acute for races other than white and black.

The categories for race or national origin are "White," "Black," "American Indian" (including Aleuts and Eskimos), "Chinese," "Japanese," "Hawaiian," "Filipino," and "Other Asian or Pacific Islander" (including Asian Indian). Before 1992 there was also an "other" category, which is now combined with the "Not stated" category. Before 1978 the category "Other Asian or Pacific Islander" was not identified separately but included with "Other" races. The separation of this category from "other" allows identification of the category "Asian or Pacific Islander" by combining the new category "Other Asian or Pacific Islander" with Chinese, Japanese, Hawaiian, and Filipino.

Beginning in 1992, NCHS contracted with seven States with the highest API populations to code births to additional API subgroups. The API subgroups include births to Vietnamese, Asian Indian, Korean, Samoan, Guamanian, and other API women. The seven States included in this reporting area are: California, Hawaii, Illinois, New Jersey, New York, Texas, and Washington. At least two-thirds of the U.S. population of each of these additional API groups lived in the seven-State reporting area(8). The data are available on the detailed natality tapes and CD-ROMs beginning with the 1992 data year. An analytic report based on the 1992 data year is also available upon request(9). In 1996, Minnesota became the eighth State to provide this information and in 1998, Virginia became the ninth State.

The category "White" comprises births reported as white and births where race is reported as Hispanic. Before 1964 all births for which race or national origin was not stated were classified as white. Beginning in 1964 changes in the procedures for allocating race when race or national origin is not stated have changed the composition of this category. (See discussion on "Race or national origin not stated.")

If the race or national origin of an Asian parent is ill-defined or not clearly identifiable with one of the categories used in the classification (for example, if "Oriental" is entered), an attempt is made to determine the specific race or national origin from the entry for place of birth. If the birthplace is China, Japan, or the Philippines, the race of the parent is assigned to that category. When race cannot be determined from birthplace, it is assigned to the category "Other Asian or Pacific Islander."

Race or national origin not stated--If the race of the mother is not defined or not identifiable with one of the categories used in the classification (0.8 percent of births in 1998) and the race of the father is known, the race of the father is assigned to the mother. Where information for both parents is missing, the race of the mother is allocated electronically according to the specific race of the mother on the preceding record with a known race of mother. Data for both parents were missing for only 0.4 percent of birth certificates for 1998. Nearly all statistics by race or national origin for the United States as a whole in 1962 and 1963 are affected by a lack of information for New Jersey, which did not report the race of the parents in those years. Birth rates by race for those years are computed on a population base that excluded New Jersey. For the method of estimating the U.S. population by age, sex, and race excluding New Jersey in 1962 and 1963, see page 4-8 in the Technical Appendix of volume I, Vital Statistics of the United States, 1963.

Age of mother

Beginning in 1989 an item on the birth certificate asks for "Date of Birth." In previous years, "Age (at time of this birth)" was requested. Not all States have revised this item for 1989, and therefore the age of mother either is derived from the reported month and year of birth or coded as stated on the certificate. In 1998 the mother's age was reported directly by five States (Kentucky, Nevada, North Dakota, Virginia, and Wyoming) and American Samoa. From 1964 to 1996, the age of mother was edited for 10-49 years. When the age of mother was computed to be under 10 years or 50 years or over, it was considered not stated and was assigned as described below. Beginning in 1997, age of mother is edited for ages 10-54 years. When the age of mother is computed to be under 10 years or 55 years or over, it is considered not stated and was assigned as described below. A review and verification of unedited birth data for 1996 showed that the vast majority

of births reported as occurring to women aged 50 years and older were to women aged 50-54 years. The numbers of births to women 50-54 years are too small for computing age-specific birth rates. These births have been included with births to women 45-49 for computing birth rates.

Age-specific birth rates are based on populations of women by age, prepared by the U.S. Bureau of the Census. In census years the decennial census counts are used. In intercensal years, estimates of the population of women by age are published by the U.S. Bureau of the Census in *Current Population Reports*.

The 1990 Census of Population derived age in completed years as of April 1, 1990, from the responses to questions on age at last birthday and month and year of birth, with the latter given preference. In the 1960, 1970, and the 1980 Census of Population, age was also derived from month and year of birth. "Age in completed years" was asked in censuses before 1960. This was nearly the equivalent of the former birth certificate question, which the 1950 test of matched birth and census records confirms by showing a high degree of consistency in reporting age in these two sources (10).

Median age of mother--Median age is the value that divides an age distribution into two equal parts, one-half of the values being less and one-half being greater. Median ages of mothers for 1960 to the present have been computed from birth rates for 5-year age groups rather than from birth frequencies. This method eliminates the effects of changes in the age composition of the childbearing population over time. Changes in the median ages from year to year can thus be attributed solely to changes in the age-specific birth rates.

Not stated date of birth of mother— In 1998 age of mother was not reported on 0.02 percent of the records. Beginning in 1964 birth records with date of birth of mother and/or age of mother not stated have had age imputed according to the age of mother from the previous birth record of the same race and total-birth order (total of fetal deaths and live births). (See "Computer Edits for Natality Data, Effective 1993" NCHS Instruction Manual, Part 12, page 9.) In 1963 birth records with age not stated were allocated according to the age appearing on the record previously processed for a mother of identical race and parity (number of live births). For 1960-62 not stated ages were distributed in proportion to the known ages for each racial group. Before 1960 this was done for age-specific birth rates but not for the birth frequency tables, which showed a separate category for age not stated.

Age of father

Age of father is derived from the reported date of birth or coded as stated on the birth certificate. If the age is under 10 years, it is considered not stated and grouped with those cases for which age is not stated on the certificate. Information on age of father is often missing on birth certificates of children born to unmarried mothers, greatly inflating the number of "not stated" in all tabulations by age of father. In computing birth rates by age of father, births tabulated as age of father not stated are distributed in the same proportions as births with known age within each 5-year-age classification of the mother. This procedure is followed because, while father's age is missing in 15 percent of the birth certificates in 1998, one third of these were on records where the mother is a teenager. This distribution procedure is done separately by race. The resulting distributions are summed to form a composite frequency distribution that is the basis for computing birth rates by age of father. This procedure avoids the distortion in rates that would result if the relationship between age of mother and age of father were disregarded.

Live-birth order and parity

Live-birth order and parity classifications refer to the total number of live births the mother has had including the 1998 birth. Fetal deaths are excluded.

Live-birth order indicates what number the present birth represents; for example, a baby born to a mother who has had two previous live births (even if one or both are not now living) has a live-birth order of three. Parity indicates how many live births a mother has had. Before delivery a mother having her first baby has a parity of zero and a mother having her third baby has a parity of two. After delivery the mother of a baby who is a first live birth has a parity of one and the mother of a baby who is a third live birth has a parity of three.

Live-birth order and parity are determined from two items on the birth certificate, "Live births now living" and "Live births now dead."

Not stated birth order--Before 1969 if both of these items were blank, the birth was considered a first birth. Beginning in 1969, births for which the pregnancy history items were not completed have been tabulated as live-birth order not stated. As a result of this revised procedure, 22,686 births in 1969 that would have been assigned to the "First birth order" category under the old rules were assigned to the "Not stated" category.

All births tabulated in the "Not stated birth order" category are excluded from the computation of percents. In computing birth rates by live-birth order, births tabulated as birth order not stated are distributed in the same proportion as births of known live-birth order.

Date of last live birth

The date of last live birth was added to the U.S. Standard Certificate of Live Birth in 1968 for the purpose of providing information on child spacing. The interval since the last live birth is the difference between the date of last live birth and the date of present birth. For an interval to be computed, both the month and year of the last live birth must be valid. This interval is computed only for events to mothers who have had at least one previous live birth. Births for which the interval since last live birth is not stated are excluded from the computation of percents and means.

Zero interval--An interval of zero months since the last live birth indicates the second born of a set of twins, the second or third born of a set of triplets, and so forth. Births with an interval of zero months are excluded from the computation of mean intervals.

Beginning in 1995, NCHS ceased to collect information on the date of last live birth and thus the information on interval is only available from birth certificate data from 1968-94.

Educational attainment

Data on the educational attainment of both parents were collected beginning in 1968 and tabulated for publication in 1969 for the first time.

The educational attainment of either parent is defined as "the number of years of school completed." Only those years completed in "regular" schools are counted, that is, a formal educational system of public schools or the equivalent in accredited private or parochial schools. Business or trade schools, such as beauty and barber schools, are not considered "regular" schools for the purposes of this item. No attempt has been made to convert years of school completed in foreign school systems, ungraded school systems, and so forth, to equivalent grades in the American school system. Such entries are included in the category "not stated."

Persons who have completed only a partial year in high school or college are tabulated as having completed the highest preceding grade. For those certificates on which a specific degree is stated, years of school completed is coded to the level at which the degree is most commonly attained; for example, persons reporting B.A., A.B., or B.S. degrees are considered to have completed 16 years of school.

Education not stated--The category "Not stated" includes all records in reporting areas for which there is no information on years of school completed as well as all records for which the information provided is not compatible with coding specifications.

Births tabulated as education not stated are excluded from the computations of percents.

Beginning in 1995, NCHS ceased to collect information on the educational attainment of the father and thus the information is available from birth certificate data only for 1969-94.

Marital status

National estimates of births to unmarried women are based on two methods of determining marital status. For 1994 through 1996, birth certificates in 45 states and the District of Columbia included a question about the mother's marital status. Beginning in 1997, California added a direct question to their birth certificate; thus **by** 1997, all but four States (Connecticut, Michigan, Nevada, and New York) included a direct question on their birth certificates. Nevada asks for the mother's marital status through the electronic birth registration process but this item is not included on certified or paper copies of the birth certificate. Beginning June 15, 1998, Connecticut discontinued inferring the mother's marital status and added a direct question on mother's marital status to the State's birth certificate.

In the two States (Michigan and New York) which used inferential procedures to compile birth statistics by marital status in 1998, a birth is inferred as nonmarital if either of these factors is present: a paternity acknowledgment was received or the father's name is missing. In recent years, a number of States have extended their efforts to identify the fathers when the parents are not married in order to enforce child support obligations. The presence of a paternity acknowledgment therefore is the most reliable indicator that the birth is nonmarital in the States not reporting this information directly; this is now the key indicator in the nonreporting States. The inferential procedures in effect since 1980 represent a substantial departure from the method used before 1980 to prepare national estimates of births to unmarried women, which assumed that the incidence of births to unmarried women in States with no direct question on marital status was the same as the incidence in reporting States in the same geographic division (12). Inferential procedures in current use, however, are quite different from those in use during the 1980's, when there was heavy reliance on a comparison of the surnames of the parents and the child to infer the mother's marital status. The procedures now in use depend, as noted above, on very reliable indicators, namely a paternity affidavit or missing information on the father

A review of Connecticut's birth data for 1998 indicates that during the first 6 months of 1998, when the inferential procedures were still in use, the proportion of births to unmarried women was somewhat higher (33 percent) than in the last 6 months when marital status was based on a direct question (29 percent). The inferential procedures in effect in Connecticut relied principally on a comparison of the surnames of the parents and child. It appears that the inferential procedures resulted in some overestimation of the number of births to unmarried women. It is estimated that if the Connecticut reporting procedures had not changed, the number of nonmarital births would have been about 1,000 higher. Because Connecticut accounts for about 1 percent of U.S. births, the reporting changes had no impact on data for the Nation.

The procedures for reporting marital status in California, Nevada, New York City changed beginning January 1, 1997. The methods used to determine marital status and the impact of the procedures on the data were discussed in detail in a previous report (13).

The use of inferential marital status data together with information from a direct question represents an attempt to use related information on the birth certificate to improve the quality of national data as well as to provide data for the individual nonreporting States. An evaluation of this method and its validity for California (the largest nonreporting State until 1997) has been published (14). Because of the continued substantial increases in nonmarital childbearing throughout the 1980's, the data have been intensively evaluated by the Division of Vital Statistics, NCHS. The results of this evaluation show that trends in birth rates for unmarried women for rates computed on the basis of estimated data and on the basis of inferred data are essentially the same.

The mother's marital status was not reported in 1998 on 0.04 percent of the birth records. Marital status was imputed as "married" for these records.

When births to unmarried women are reported as second or higher order births, it is not known whether the mother was married or unmarried when the previous deliveries occurred, because her marital status at the time of these earlier births is not available from the birth record.

Rates for 1940 and 1950 are based on decennial census counts. Rates for 1955-97 are based on a smoothed series of population estimates (12). Because of sampling error, the original U.S. Bureau of the Census population estimates by marital status fluctuate erratically from year to year; therefore, they have been smoothed so that the rates do not show

similar variations. These rates differ from those published in volumes of *Vital Statistics of the United States* before 1969, which were based on the original estimates provided annually by the U.S. Bureau of the Census. Birth rates by marital status for 1971-79 have been revised and differ from rates published before 1980 in volumes of *Vital Statistics of the United States* (see `Computation of rates and other measures").

Place of delivery and attendant at birth

The 1989 revision of the U.S. Standard Certificate of Live Birth included separate categories for freestanding birthing centers, the mother's residence, and clinic or doctor's office as the place of birth. Prior to 1989, place of birth was classified simply as either "In hospital" or "Not in hospital." Births occurring in hospitals, institutions, clinics, centers, or homes were included in the category "In hospital." In this context the word "homes" does not refer to the mother's residence but to an institution, such as a home for unmarried women. Birthing centers were included in either category, depending on each State's assessment of the facility. Beginning in 1989 births occurring in clinics and in birthing centers not attached to a hospital are classified as "Not in hospital." This change in classification may account in part for the lower proportion of "In hospital" births compared with previous years. (The change in classification of clinics should have minor impact because comparatively few births occur in these facilities, but the effect of any change in classification of freestanding birthing centers is unknown.)

Beginning in 1975 the attendant at birth and place of delivery items were coded independently, primarily to permit the identification of the person in attendance at hospital deliveries. The 1989 certificate includes separate classifications for doctor of medicine (MD), doctor of osteopathy (DO), certified nurse midwife (CNM), other midwife, and other attendants. In earlier certificates births attended by certified nurse midwives were grouped with those attended by lay midwives. The new certificate also facilitates the identification of home births, births in freestanding birthing centers, and births in clinics or physician offices.

Data for the "In hospital" category for 1975-88 include all births in clinics or maternity centers, regardless of the attendant. Data for 1975-77 published before 1980 included clinic and center births in the category "In hospital" only when the attendant was a physician. Data shown for 1975-77 published after 1980 will, therefore, differ from data published before 1980. As a result of this change, for 1975 an additional 12,352 births are now classified as occurring in hospitals, raising the percent of births occurring in hospitals from 98.7 to 99.1. Similarly, for 1976 the number of births occurring in hospitals increased by 14,133 and the percent in hospitals raised from 98.6 to 99.1; for 1977 the increase is 15,937 and the percent in hospitals raised from 98.5 to 99.0. For 1974 and earlier the "In hospital" category includes all births in hospitals or institutions and births in clinics, centers, or maternity homes only when attended by physicians.

The "Not in hospital" category includes births for which no information is reported on place of birth. Before 1975 births for which the stated place of birth was a "doctor's office" and delivery was by a physician were included in the category "In hospital." Beginning in 1975 these births were tabulated as "Not in hospital" and included with births delivered by physicians in this category. Although the actual number of such births is unknown, the effect of the change is minimal. In 1974, 0.3 percent of all births were delivered by physicians outside of hospitals; in 1975 this proportion was 0.4 percent.

Babies born on the way to or on arrival at the hospital are classified as having been born in the hospital. This may account for some of the hospital births not delivered by physicians or midwives.

Beginning in 1993, all in-hospital births occurring in Illinois where the attendant was classified as an "other" midwife were changed to certified nurse-midwife. This was necessary because almost all of these births were delivered by midwives certified by the American College of Nurse Midwives but because Illinois does not certify midwives, many of these births were classified as "other" midwives.

Birthweight

Birthweight is reported in some areas in pounds and ounces rather than in grams. However, the metric system has been used in tabulating and presenting the statistics to facilitate comparison with data published by other groups. The

categories for birthweight were changed in 1979 to be consistent with the recommendations in the *Ninth Revision of the International Classification of Diseases* (ICD-9). The categories in gram intervals and their equivalents in pounds and ounces are as follows:

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Less than 500 grams = 1 lb 1 oz or less 500-999 grams = 1 lb 2 oz-2 lb 3 oz 1,000-1,499 grams = 2 lb 4 oz-3 lb 4 oz 1,500-1,999 grams = 3 lb 5 oz-4 lb 6 oz 2,000-2,499 grams = 4 lb 7 oz-5 lb 8 oz 2,500-2,999 grams = 5 lb 9 oz-6 lb 9 oz 3,000-3,499 grams = 6 lb 10 oz-7 lb 11 oz 3,500-3,999 grams = 7 lb 12 oz-8 lb 13 oz 4,000-4,499 grams = 8 lb 14 oz-9 lb 14 oz 4,500-4,999 grams = 9 lb 15 oz-11 lb 0 oz 5,000 grams or more = 11 lb 1 oz or more
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The ICD-9 defines low birthweight as less than 2,500 grams. This is a shift of 1 gram from the previous criterion of 2,500 grams or less, which was recommended by the American Academy of Pediatrics in 1935 and adopted in 1948 by the World Health Organization in the *Sixth Revision of the International Lists of Diseases and Causes of Death*.

After data classified by pounds and ounces are converted to grams, median weights are computed and rounded before publication. To establish the continuity of class intervals needed to convert pounds and ounces to grams, the end points of these intervals are assumed to be half an ounce less at the lower end and half an ounce more at the upper end. For example, 2 lb 4 oz-3 lb 4 oz is interpreted as 2 lb 3 ½ oz-3 lb 4 ½ oz.

Births for which birthweight is not reported are excluded from the computation of percents and medians.

Period of gestation

The period of gestation is defined as beginning with the first day of the last normal menstrual period (LMP) and ending with the day of the birth. The LMP is used as the initial date because it can be more accurately determined than the date of conception, which usually occurs 2 weeks after the LMP.

Births occurring before 37 completed weeks of gestation are considered to be "preterm" or "premature" for purposes of classification. At 37-41 weeks gestation, births are considered to be "term," and at 42 completed weeks and over, "postterm." These distinctions are according to the ICD-9 definitions.

The 1989 revision of the U.S. Standard Certificate of Live Birth included a new item, "clinical estimate of gestation," that is being compared with length of gestation computed from the LMP date when the latter appears to be inconsistent with birthweight. This is done for normal weight births of apparently short gestations and very low

birthweight births reported to be full term. The clinical estimate also was used if the date of the LMP was not reported. The period of gestation for 5.1 percent of the births in 1998 was based on the clinical estimate of gestation. For 97 percent of these records the clinical estimate was used because the LMP date was not reported. For the remaining 3 percent the clinical estimate was used because it was compatible with the reported birth weight, whereas the LMP-computed gestation was not. In cases where the reported birthweight was inconsistent with both the LMP-computed gestation and the clinical estimate of gestation, the LMP-computed gestation was used if it was within 5 weeks of the clinical estimate and birth weight was reclassified as "not stated." This was necessary for about 350 births, less than 0.01 percent of all birth records in 1998. If the reported birthweight was inconsistent with both the LMP-computed gestation and the clinical estimate of gestation, gestation and birthweight were classified as "not stated" if the LMP-computed gestation was not within 5 weeks of the clinical estimate. These changes result in only a very small discontinuity in the data. For further information on the use of the clinical estimate of gestation see "Computer Edits for Natality Data, Effective 1993," NCHS Instruction Manual, Part 12, pages 34-36.

Before 1981 the period of gestation was computed only when there was a valid month, day, and year of LMP. However, length of gestation could not be determined from a substantial number of live-birth certificates each year because the day of LMP was missing. Beginning in 1981 weeks of gestation have been imputed for records with missing day of LMP when there is a valid month and year. Each such record is assigned the gestational period in weeks of the preceding record that has a complete LMP date with the same computed months of gestation and the same 500-gram birthweight interval. The effect of the imputation procedure is to increase slightly the proportion of preterm births and to lower the proportion of births at 39, 40, 41, and 42 weeks of gestation. A more complete discussion of this procedure and its implications is presented in a previous report (15).

Because of postconception bleeding or menstrual irregularities, the presumed date of LMP may be in error. In these instances the computed gestational period may be longer or shorter than the true gestational period, but the extent of such errors is unknown.

Month of pregnancy prenatal care began

For those records in which the name of the month is entered for this item, instead of first, second, third, and so forth, the month of pregnancy in which prenatal care began is determined from the month named and the month last normal menses began. For these births, if the item "Date last normal menses began" is not stated, the month of pregnancy in which prenatal care began is tabulated as not stated.

Number of prenatal visits

Tabulations of the number of prenatal visits were presented for the first time in 1972. Beginning in 1989 these data were collected from the birth certificates of all States. Percent distributions and the median number of prenatal visits exclude births to mothers who had no prenatal care.

Apgar score

The 1- and 5-minute Apgar scores were added to the U.S. Standard Certificate of Live Birth in 1978 to evaluate the condition of the newborn infant at 1 and 5 minutes after birth. The Apgar score is a useful measure of the need for resuscitation and a predictor of the infant's chances of surviving the first year of life. It is a summary measure of the infant's condition based on heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each of these factors is given a score of 0, 1, or 2; the sum of these 5 values is the Apgar score, which ranges from 0 to 10. A score of 10 is optimum, and a low score raises some doubts about the survival and subsequent health of the infant. Beginning in 1995, NCHS only collected information on the 5-minute Apgar score. In 1998 the reporting area for the 5-minute Apgar score was comprised of 48 States and the District of Columbia, accounting for 78 percent of all births in the United States. California and Texas did not have information on Apgar scores on their birth certificate.

Tobacco and alcohol use during pregnancy

The checkbox format allows for classification of a mother as a smoker or drinker during pregnancy and for reporting the average number of cigarettes smoked per day or drinks consumed per week. When smoking and/or drinking status is not reported or is inconsistent with the quantity of cigarettes or drinks reported, the status is changed to be consistent with the amount reported. For example, if the drinking status is reported as "no" but one or more average drinks a week are reported, the mother is classified as a drinker. If the number of cigarettes smoked per day is reported as one or more, the mother is considered a smoker. When one (or a fraction of one) drink a week is recorded, the mother is classified as a drinker. For records on which the number of drinks or number of cigarettes is reported as a span, for example, 10-15, the

lower number is used. The number of drinkers and number of drinks reported on birth certificates are believed to underestimate actual alcohol use.

Data on tobacco use were collected by 46 States, the District of Columbia, and New York City in 1998. This reporting area accounted for 81 percent of all births in the U.S. in 1998. Information was not available for California, Indiana, South Dakota, and the remainder of New York State. Information on alcohol use was included on the certificates of 48 States and the District of Columbia, accounting for 87 percent of all U.S. births in 1998. California and South Dakota did not include items on alcohol use on their birth certificates.

Weight gained during pregnancy

Weight gain is reported in pounds. A loss of weight is reported as zero gain. Computations of median weight gain were based on ungrouped data. This item was included on the certificates of 49 States and the District of Columbia; California did not report this information. This reporting area excluding California accounted for 87 percent of all births in the United States in 1998.

Medical risk factors for this pregnancy

In 1998 an item on medical risk factors was included on the birth certificates of all States and the District of Columbia, but 2 States did not report all of the 16 risk factors. Texas did not report genital herpes or uterine bleeding, and Kansas did not report Rh sensitization.

The format allows for the designation of more than one risk factor and includes a choice of "None." Accordingly, if the item is not completed, it is classified as "Not stated."

The following definitions are adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials for the Association for Vital Records and Health Statistics (16).

Definitions of medical terms

Anemia--Hemoglobin level of less than 10.0 g/dL during pregnancy or a hematocrit of less than 30 percent during pregnancy.

Cardiac disease--Disease of the heart.

Acute or chronic lung disease--Disease of the lungs during pregnancy.

Diabetes--Metabolic disorder characterized by excessive discharge of urine and persistent thirst; includes juvenile onset, adult onset, and gestational diabetes during pregnancy.

Genital herpes--Infection of the skin of the genital area by herpes simplex virus.

Hydramnios/oligohydramnios--Any noticeable excess (hydramnios) or lack (oligohydramnios) of amniotic fluid. Hemoglobinopathy--A blood disorder caused by alteration in the genetically determined molecular structure of hemoglobin (for example, sickle cell anemia).

Hypertension, chronic--Blood pressure persistently greater than 140/90, diagnosed prior to onset of pregnancy or before the 20th week of gestation.

Hypertension, pregnancy-associated--An increase in blood pressure of at least 30 mm Hg systolic or 15 mm Hg diastolic on two measurements taken 6 hours apart after the 20th week of gestation.

Eclampsia—The occurrence of convulsions and/or coma unrelated to other cerebral conditions in women with signs and symptoms of pre-eclampsia.

Incompetent cervix--Characterized by painless dilation of the cervix in the second trimester or early in the third trimester of pregnancy, with prolapse of membranes through the cervix and ballooning of the membranes into the vagina, followed by rupture of membranes and subsequent expulsion of the fetus.

Previous infant 4,000+ grams-The birthweight of a previous live-born child was over 4,000 grams (8 lbs 13 oz). Previous preterm or small-for-gestational-age infant--Previous birth of an infant prior to term (before 37 completed weeks of gestation) or of an infant weighing less than the 10th percentile for gestational age using a standard weight-for-age chart.

Renal disease--Kidney disease.

Rh sensitization--The process or state of becoming sensitized to the Rh factor as when an Rh-negative woman is pregnant with an Rh-positive fetus.

Uterine bleeding--Any clinically significant bleeding during the pregnancy, taking into consideration the stage of pregnancy; any second or third trimester bleeding of the uterus prior to the onset of labor.

Obstetric procedures

This item includes six specific obstetric procedures. Birth records with "Obstetric procedures" left blank are considered "not stated." Data on obstetric procedures were reported by all States and the District of Columbia in 1998.

The following definitions are adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials for the National Association for Public Health Statistics and Information Systems (NAPHSIS), formerly the Association for Vital Records and Health Statistics (16).

Definitions of medical terms

Amniocentesis—Surgical transabdominal perforation of the uterus to obtain amniotic fluid to be used in the detection of genetic disorders, fetal abnormalities, and fetal lung maturity.

Electronic fetal monitoring--Monitoring with external devices applied to the maternal abdomen or with internal devices with an electrode attached to the fetal scalp and a catheter through the cervix into the uterus, to detect and record fetal heart tones and uterine contractions.

Induction of labor--The initiation of uterine contractions before the spontaneous onset of labor by medical and/or surgical means for the purpose of delivery.

Stimulation of labor--Augmentation of previously established labor by use of oxytocin.

Tocolysis--Use of medications to inhibit preterm uterine contractions to extend the length of pregnancy and therefore avoid a preterm birth.

Ultrasound--Visualization of the fetus and placenta by means of sound waves.

Complications of labor and/or delivery

The checkbox format allows for the selection of 15 specific complications and for the designation of more than 1 complication where appropriate. A choice of "None" is also included. Accordingly, if the item is not completed, it is classified as "not stated."

All States and the District of Columbia included this item on their birth certificates in 1998. However, Texas did not report all of the complications. Texas did not report anesthetic complications or fetal distress.

The following definitions are adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials (16).

Definitions of medical terms

Febrile--A fever greater than 100 degrees F. or 38 C. occurring during labor and/or delivery.

Meconium, moderate/heavy--Meconium consists of undigested debris from swallowed amniotic fluid, various

products of secretion, excretion, and shedding by the gastrointestinal tract; moderate to heavy amounts of meconium in the amniotic fluid noted during labor and/or delivery.

Premature rupture of membranes (more than 12 hours)--Rupture of the membranes at any time during pregnancy and more than 12 hours before the onset of labor.

Abruptio placenta--Premature separation of a normally implanted placenta from the uterus.

Placenta previa--Implantation of the placenta over or near the internal opening of the cervix.

Other excessive bleeding--The loss of a significant amount of blood from conditions other than abruptio placenta or placenta previa.

Seizures during labor--Maternal seizures occurring during labor from any cause.

Precipitous labor (less than 3 hours)--Extremely rapid labor and delivery lasting less than 3 hours.

Prolonged labor (more than 20 hours)--Abnormally slow progress of labor lasting more than 20 hours.

Dysfunctional labor--Failure to progress in a normal pattern of labor.

Breech/malpresentation--At birth, the presentation of the fetal buttocks rather than the head, or other malpresentation.

Cephalopelvic disproportion--The relationship of the size, presentation, and position of the fetal head to the maternal pelvis prevents dilation of the cervix and/or descent of the fetal head.

Cord prolapse--Premature expulsion of the umbilical cord in labor before the fetus is delivered.

Anesthetic complications--Any complication during labor and/or delivery brought on by an anesthetic agent or agents.

Fetal distress--Signs indicating fetal hypoxia (deficiency in amount of oxygen reaching fetal tissues).

Abnormal conditions of the newborn

This item provides information on eight specific abnormal conditions. More than one abnormal condition may be reported for a given birth or ``None" may be selected. If the item is not completed it is tabulated as ``not stated." This item was included on the birth certificates of all States and the District of Columbia in 1998. However, four areas did not include all conditions. Nebraska and Texas did not report birth injury, New York City did not report assisted ventilation less than 30 minutes or assisted ventilation of 30 minutes or more, and Wisconsin did not report fetal alcohol syndrome.

The following definitions are adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics (16).

Definitions of medical terms

Anemia--Hemoglobin level of less than 13.0 g/dL or a hematocrit of less than 39 percent.

Birth injury--Impairment of the infant's body function or structure due to adverse influences that occurred at birth. Fetal alcohol syndrome--A syndrome of altered prenatal growth and development occurring in infants born of women who consumed excessive amounts of alcohol during pregnancy.

Hyaline membrane disease/RDS--A disorder primarily of prematurity, manifested clinically by respiratory distress and pathologically by pulmonary hyaline membranes and incomplete expansion of the lungs at birth.

Meconium aspiration syndrome--Aspiration of meconium by the fetus or newborn, affecting the lower respiratory system.

Assisted ventilation (less than 30 minutes)--A mechanical method of assisting respiration for newborns with respiratory failure.

Assisted ventilation (30 minutes or more)--Newborn placed on assisted ventilation for 30 minutes or longer. Seizures--A seizure of any etiology.

Congenital anomalies of child

The data provided in this item relate to 21 specific anomalies or anomaly groups. It is well documented that congenital anomalies, except for the most visible and most severe, are incompletely reported on birth certificates. The completeness of reporting specific anomalies depends on how easily they are recognized in the short time between birth and birth-registration. Forty-nine States and the District of Columbia included this item on their birth certificates (New Mexico did not). This reporting area included **99** percent of all births in the United States in 1998. The format allows for the identification of more than one anomaly including a choice of "None" should no anomalies be evident. The category "not stated" includes birth records for which the item is not completed.

The following definitions are adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials (16).

Definitions of medical terms

Anencephalus--Absence of the cerebral hemispheres.

*Spina bifida/meningocele--*Developmental anomaly characterized by defective closure of the bony encasement of the spinal cord, through which the cord and meninges may or may not protrude.

Hydrocephalus--Excessive accumulation of cerebrospinal fluid within the ventricles of the brain with consequent enlargement of the cranium.

Microcephalus--A significantly small head.

Other central nervous system anomalies—Other specified anomalies of the brain, spinal cord, and nervous system. Heart malformations—Congenital anomalies of the heart.

Other circulatory/respiratory anomalies--Other specified anomalies of the circulatory and respiratory systems.

Rectal atresia/stenosis--Congenital absence, closure, or narrowing of the rectum.

*Tracheo-esophageal fistula/Esophageal atresia--*An abnormal passage between the trachea and the esophagus; esophageal atresia is the congenital absence or closure of the esophagus.

Omphalocele/gastroschisis--An omphalocele is a protrusion of variable amounts of abdominal viscera from a midline defect at the base of the umbilicus. In gastroschisis, the abdominal viscera protrude through an abdominal wall defect, usually on the right side of the umbilical cord insertion.

Other gastrointestinal anomalies--Other specified congenital anomalies of the gastrointestinal system.

Malformed genitalia--Congenital anomalies of the reproductive organs.

Renal agenesis--One or both kidneys are completely absent.

Other urogenital anomalies--Other specified congenital anomalies of the organs concerned in the production and excretion of urine, together with organs of reproduction.

*Cleft lip/palate--*Cleft lip is a fissure of elongated opening of the lip; cleft palate is a fissure in the roof of the mouth. These are failures of embryonic development.

Polydactyly/syndactyly/adactyly--Polydactyly is the presence of more than five digits on either hands and/or feet; syndactyly is having fused or webbed fingers and/or toes; adactyly is the absence of fingers and/or toes.

Club foot--Deformities of the foot, which is twisted out of shape or position.

Diaphragmatic hernia-- Herniation of the abdominal contents through the diaphragm into the thoracic cavity usually resulting in respiratory distress.

Other musculoskeletal/integumental anomalies--Other specified congenital anomalies of the muscles, skeleton, or skin.

Down's syndrome--The most common chromosomal defect with most cases resulting from an extra chromosome (trisomy 21).

Other chromosomal anomalies--All other chromosomal aberrations.

Method of delivery

The birth certificate contains a checkbox item on method of delivery. The choices include vaginal delivery, with the additional options of forceps, vacuum, and vaginal birth after previous cesarean section (VBAC), as well as a choice of primary or repeat cesarean. When only forceps, vacuum, or VBAC is checked, a vaginal birth is assumed. In 1998 this information was collected from the birth certificates of all States and the District of Columbia.

Several rates are computed for method of delivery. The overall cesarean section rate or total cesarean rate is computed as the proportion of all births that were delivered by cesarean section. The primary cesarean rate is a measure that relates the number of women having a primary cesarean birth to all women giving birth who have never had a cesarean delivery. The denominator for this rate is the sum of women with a vaginal birth excluding VBACs and women with a primary cesarean birth. The rate for vaginal birth after previous cesarean (VBAC) delivery is computed by relating all VBAC deliveries to the sum of VBAC and repeat cesarean deliveries, that is, to women with a previous cesarean section. VBAC rates for first births exist because the rates are computed on the basis of previous pregnancies, not just live births.

Hispanic parentage

The 1989 revision of the U.S. Standard Certificate of Live Births includes items to identify the Hispanic origin of the parents. Concurrent with the 1978 revision of the U.S. Certificate of Live Birth, NCHS recommended that items to identify the Hispanic or ethnic origin of the newborn's parents be included on birth certificates and has tabulated and evaluated these data from the reporting States. All 50 States and the District of Columbia reported Hispanic origin of the parents for 1998. In 1989 Louisiana, New Hampshire, and Oklahoma did not report this information; in 1990 New Hampshire and Oklahoma did not report, and in 1991-92 New Hampshire did not report Hispanic origin.

In computing birth and fertility rates for the Hispanic population, births with origin of mother not stated are included with non-Hispanic births rather than being distributed. Thus, rates for the Hispanic population are underestimates of the true rates to the extent that the births with origin of mother not stated (1.2 percent in 1998) were actually to Hispanic mothers. The population with origin not stated was imputed. The effect on the rates is believed to be small.

Quality of data

Although vital statistics data are useful for a variety of administrative and scientific purposes, they cannot be correctly interpreted unless various qualifying factors and methods of classification are taken into account. The factors to be considered depend on the specific purposes for which the data are to be used. It is not feasible to discuss all the pertinent factors in the use of vital statistics tabulations, but some of the more important ones should be mentioned.

Most of the factors limiting the use of data arise from imperfections in the original records or from the impracticability of tabulating these data in very detailed categories. These limitations should not be ignored, but their existence does not lessen the value of the data for most general purposes.

Completeness of registration

An estimated 99 percent of all births occurring in the United States in 1998 were registered; for white births registration was 99.4 percent complete and for all other births, 98.6 percent complete. These estimates are based on the results of the 1964-68 test of birth-registration completeness according to place of delivery (in or out of hospital) and race and on the 1989 proportions of births in these categories. The primary purpose of the test was to obtain current measures of registration completeness for births in and out of hospital by race on a national basis. Data for States were not available

as they had been from the previous birth-registration tests in 1940 and 1950. A detailed discussion of the method and results of the 1964-68 birth-registration test is available (17).

The 1964-68 test has provided an opportunity to revise the estimates of birth-registration completeness for the years since the previous test in 1950 to reflect the improvement in registration. This has been done using registration completeness figures from the two tests by place of delivery and race. Estimates of registration completeness for four groups (based on place of delivery and race) for 1951-65 were computed by interpolation between the test results. (It was assumed that the data from the more recent test are for 1966, the midpoint of the test period.) The results of the 1964-68 test are assumed to prevail for 1966 and later years. These estimates were used with the proportions of births registered in these categories to obtain revised numbers of births adjusted for underregistration for each year. The overall percent of birth-registration completeness by race was then computed. Data adjusted for underregistration for 1951-59 have been revised to be consistent with the 1964-68 test results and differ slightly from data shown in annual reports for years before 1969. For these years the published number of births and birth rates for both racial groups have been revised slightly downward because the 1964-68 test indicated that previous adjustments to registered births were slightly inflated. Because registration completeness figures by age of mother and by live-birth order are not available from the 1964-68 test, it must be assumed that the relationships among these variables have not changed since 1950.

Discontinuation of adjustment for underregistration, 1960--Adjustment for underregistration of births was discontinued in 1960 when birth registration for the United States was estimated to be 99.1 percent complete. This removed a bias introduced into age-specific rates when adjusted births classified by age were used. Age-specific rates are calculated by dividing the number of births to an age group of mothers by the population of women in that age group. Tests have shown that population figures are likely to be understated through census undercounts; these errors compensate for underregistration of births. Adjustment for underregistration of births, therefore, removes the compensating effect of under enumeration, biasing the age-specific rates more than when uncorrected birth and population data are used. (For further details see page 4-11 in the Technical Appendix of volume I, Vital Statistics of the United States, 1963.)

The age-specific rates used in the cohort fertility tables are an exception to the above statement. These rates are computed from births corrected for underregistration and population estimates adjusted for under enumeration and misstatement of age. Adjusted birth and population estimates are used for the cohort rates because they are an integral part of a series of rates, estimated with a consistent methodology. It was considered desirable to maintain consistency with respect to the cohort rates, even though it means that they will not be precisely comparable with other rates shown for 5-year age groups.

Completeness of reporting

Interpretation of these data must include evaluation of item completeness. The percent "not stated" is one measure of the quality of the data. Completeness of reporting varies among items and States. See table A for the percent of birth records on which specified items were not stated.

Quality control procedures

States in the Vital Statistics Cooperative Program are required to have an error rate of less than 2.0 percent for each item for 3 consecutive data months during the initial qualifying period. Once a State is qualified, NCHS monitors the quality of data received. This was achieved through independent verification of a sample of records for some States as well as comparing the State data with data from previous years. In addition, there is verification at the State level before NCHS is sent the data.

After the coding is completed, counts of the taped records are balanced against control totals for each shipment of records from a registration area. Impossible codes are eliminated during the editing processes on the computer and corrected on the basis of reference to the source record or adjusted by arbitrary code assignment. All subsequent operations involved in tabulation and table preparation are verified during computer processing or by statistical clerks.

Random variation and significance testing for natality data

The number of births reported for an area is essentially a complete count, since more than 99% of all births are registered. While this number is not subject to sampling error, it may be affected by nonsampling errors such as mistakes in recording the mother's residence or age during the registration process.

When the number of births is used for analytic purposes the number of events that <u>actually</u> occurred can be thought of as one in a large series of possible results that <u>could have</u> occurred under the same circumstances. When considered in this way, the number of births is subject to random variation. The probable range of values may be estimated from the actual figures according to certain statistical assumptions.

The confidence interval is the range of values for the number of births, birth rates, or percent of births that you could expect in 95 out of 100 cases. The confidence limits are the end points of this range of values (the highest and lowest values). Confidence limits tell you how much the number of events or rates could vary under similar circumstances.

Confidence limits for numbers, rates, and percents can be estimated from the actual number of events. Procedures differ for rates and percents and also differ depending on the number of births on which these statistics are based. Below are detailed procedures and examples for each type of case.

95-percent confidence limits for numbers less than 100

When the number of births is less than 100 and the rate is small, the data are assumed to follow a Poisson probability distribution. Confidence limits are estimated using the following formulas:

```
Lower \ limit = B \ x \ L
Upper \ limit = B \ x \ U
where:
B = \text{the number of births}
L = \text{the value in Table C that corresponds to the number B}
U = \text{the value in Table C that corresponds to the number B}
```

Example

Suppose the number of first births to American Indian women 40-44 years of age was 47. The confidence limits for this number would be:

```
Lower limit = B \times L
= 47 x 0.73476
= 35

Upper limit = B \times U
= 47 x 1.32979
= 63
```

This means that the chances are 95 out of 100 that the actual number of first births to American Indian women 40-44 years of age would lie between 35 and 63.

95-percent confidence limits for numbers of 100 or more

When the number of events is greater than 100, the data are assumed to be approximately normally distributed. Formulas for 95-percent confidence limits are:

```
Lower limit = B ! (1.96 \times /B)

Upper limit = B + (1.96 \times /B)

where:

B = the number of births
```

Example

Suppose the number of first births to white women 40-44 years of age was 14,108. The 95-percent confidence limits for this number would be:

```
Lower limit = 14,108 - [1.96 \text{ x /} 14,108]
= 14,108 - 233
= 13,875
Upper limit = 14,108 + [1.96 \text{ x /} 14,108]
= 14,108 + 233
= 14,341
```

This means that the chances are 95 out of 100 that the actual number of first births to white women 40-44 years of age would lie between 13,875 and 14,341.

Computing confidence intervals for rates

The same statistical assumptions can be used to estimate the variability in birth rates. Again, one formula is used for rates based on numbers of events less than 100, and another formula for rates based on numbers of 100 or greater. For our purposes, assume that the denominators of these rates (the population estimates) have no error. While this assumption is technically correct <u>only</u> for denominators based on the census which occurs every 10 years, the error in intercensal population estimates is usually small, difficult to measure, and therefore not considered.

95-percent confidence limits for rates based on less than 100 events

When the number of events in the numerator is less than 20, an asterisk is shown in place of the rate because there were too few births to compute a statistically reliable rate. When the number of events in the numerator is greater than 20 but less than 100, the confidence interval for a rate can be estimated using the two formulas which follow and the values in Table IV.

Example

Suppose that the first birth rate for American Indian women 40-44 years of age was 0.54 per thousand, based on 47 births in the numerator. Using Table C:

Lower limit = $0.54 \times 0.73476 = .40$ Upper limit = $0.54 \times 1.32979 = .72$

This means that the chances are 95 out of 100 that the actual first birth rate for American Indian women 40-44 year of age lies between .40 and .72.

95-percent confidence limits for rates when the numerator is 100 or more

In this case, use the following formula for the birth rate R based on the number of births B:

Lower limit = R ! [1.96 x @ //B)]Upper limit = R + [1.96 x @ //B)]where: R = the birth rate

B = the number of births

Example

Suppose the first birth rate for white women 40-44 years of age was 1.55 per thousand, based on 14,108 births in the numerator. Therefore, the 95-percent confidence interval would be:

Lower limit =
$$1.55 - [1.96 \times (1.55 / /14,108)]$$

= $1.55 - .026$
= 1.52
Upper limit = $1.55 + [1.96 \times (1.55 / /14,108)]$
= $1.55 + .026$
= 1.58

This means that the chances are 95 out of 100 that the actual first birth rate for white women 40-44 years of age lies between 1.52 and 1.58.

Computing 95-percent confidence intervals for percents

In many instances we need to compute the confidence intervals for percents. Percents derive from a binomial distribution. As with birth rates, an asterisk will be shown for any percent which is based on fewer than 20 births in the numerator. We easily compute a 95-percent confidence interval for a percent when the following conditions are met:

$$B \times p >= 5$$
 and $B \times q >= 5$ where:
 $B =$ number of births in the denominator $p =$ percent divided by 100 $q =$ 1 - p

For natality data, these conditions will be met except for very rare events in small subgroups. If the conditions are *not* met, the variation in the percent will be so large as to render the confidence intervals meaningless. When these conditions are met the 95-percent confidence interval can be computed using the normal approximation of the binomial. The 95-percent confidence intervals are computed by the following formulas:

```
Lower limit = p ! [1.96 x (/p x q/B)]

Upper limit = p + [1.96 x (/p x q/B)]

where:

B = \text{number of births in the denominator}

p = \text{percent divided by } 100

q = 1 - p
```

Example

Suppose the percent of births to Hispanic women in Alabama that were to unmarried women was 23.0 percent. This was based on 310 births in the numerator and 1,345 births in the denominator. First we test to make sure we can use the normal approximation of the binomial:

```
1,345 \times .230 = 3091,345 \times (1 - .230)= 1.345 \times .770 = 1.036
```

Both 309 and 1,036 are greater than 5 so we can proceed. The 95-percent confidence interval would be:

```
Lower limit = .23 ! [ 1.96 x (/.23 x.77/1,345) ]

= .23 - .022

= .208 or 20.8 percent

Upper limit = .23 + [ 1.96 x (/.23 x.77/1,345) ]

= .23 + .022

= .252 or 25.2 percent
```

This means that the chances are 95 out of 100 that the actual percent of births in Alabama to Hispanic women that are to unmarried women lies between 20.8 and 25.2 percent.

Significance testing

One of the rates is based on fewer than 100 cases

To compare two rates, when one or both of those rates are based on less than 100 cases, you first compute the confidence intervals for both rates. Then you check to see if those intervals overlap. If they **do** overlap, the difference is not statistically significant at the 95-percent level. If they **do not** overlap, the difference is indeed "statistically significant."

Example

Is the first birth rate for American Indian women 40-44 years of age (.54 per 1,000) significantly lower than the comparable rate for white women (1.55)? The rate for American Indian women is based on 47 events whereas the rate for white women is based on 14,108 events. The rate for American Indian women is based on less than 100 events; therefore, the first step is to compute the confidence intervals for both rates.

	Lower Limit	Upper Limit
American Indian women	0.40	0.72
White women	1.52	1.58

These two confidence intervals do not overlap. Therefore, the first birth rate for American women 40-44 is significantly lower (at the 95-percent confidence level) than the comparable rate for white women.

Both rates are based on 100 or more events

When both rates are based on 100 or more events, the difference between the two rates is considered statistically significant if it exceeds the statistic in the formula below. This statistic equals 1.96 times the standard error for the difference between two rates.

$$1.96 \sqrt{\frac{R_1^2}{N_1} \% \frac{R_2^2}{N_2}}$$

where:

 R_1 = the first rate R_2 = the second rate

 N_1 = the first number of births N_2 = the second number of births

If the difference is greater than this statistic, then the difference would occur by chance less than 5 times out of 100. If the difference is less than this statistic, the difference might occur by chance more than 5 times out of 100. We say that the difference is not statistically significant at the 95-percent confidence level.

Example

Is the first birth rate for black women 40-44 years of age (1.08 per 1,000) significantly lower than the comparable rate for white women (1.55)? Both rates are based on more than 100 births (1,535 for black women and 14,108 for white women). The difference between the rates is 1.55 - 1.08 = .47. The statistic is then calculated as follows:

$$1.96 \sqrt{\frac{1.08^2}{1,535} \% \frac{1.55^2}{14,108}}$$

= $1.96 \times /[(1.166/1,535 + 2.403/14,108)]$

= 1.96 x / (.00076 + 0.00017)

= 1.96 x / .00093

 $= 1.96 \times .03$

= .06

The difference between the rates (.47) is greater than this statistic (.06). Therefore, the difference is statistically significant at the 95-percent confidence level.

Testing differences between two percents

When testing the difference between two percents, both percents must meet the following conditions:

$$B x p >= 5$$
 and $B x q >= 5$

where:

B =number of births in the denominator

p = percent divided by 100

q = 1 - p

When both percents meet these conditions then the difference between the two percents is considered statistically significant if it exceeds the statistic in the formula below. This statistic equals 1.96 times the standard error for the difference between two percents.

1.96
$$\sqrt{p \ (1\&p) \ (\frac{1}{B_1} \% \ \frac{1}{B_2})}$$

where:

 B_1 = the number of births in the denominator for the first percent

 B_2 = the number of births in the denominator for the second percent

p =

$$\frac{B_1 \ p_1 \% B_2 \ p_2}{B_1 \% B_2}$$

p₁ = the first percent divided by 100 p₂ = the second percent divided by 100

Example

Is the percent of births to Hispanic women that were to unmarried women higher in Alaska (28.8 percent) than in Alabama (23.0). The number in the denominator was 1,345 in Alabama and 593 in Alaska. The necessary conditions are met for both percents (calculations not shown). The difference between the two percents is .288 - .230 = .058. The statistic is then calculated as follows:

$$1.96 \sqrt{(.2477) (.7523) (.0024)}$$

= 1.96 x / .000447

 $= 1.96 \times .021$

= .042

The difference between the percents (.058) is greater than this statistic (.042). Therefore, the difference is statistically significant at the 95-percent confidence level.

Computation of rates and other measures

Population bases

The rates shown in this report were computed on the basis of population statistics prepared by the U.S. Bureau of the Census. Rates for 1940, 1950, 1960, 1970, 1980, and 1990 are based on the population enumerated as of April 1 in the censuses of those years. Rates for all other years are based on the estimated midyear (July 1) population for the respective years. Birth rates for the United States, individual States, and metropolitan areas are based on the total resident populations of the respective areas. Except as noted these populations exclude the Armed Forces abroad but include the Armed Forces stationed in each area. The resident population of the birth- and death-registration States for 1900-32 and for the United States for 1900-98 is shown in table 4-1. In addition, the population including Armed Forces abroad is shown for the United States. Table D shows the sources for these populations.

In both the 1980 and 1990 censuses, a substantial number of persons did not specify a racial group that could be classified as any of the White, Black, American Indian, Eskimo, Aleut, Asian, or Pacific Islander categories on the census form (18). In 1980 the number of persons of "other" race was 6,758,319; in 1990 it was 9,804,847. In both censuses, the large majority of these persons were of Hispanic origin (based on response to a separate question on the form), and many wrote in their Hispanic origin, or Hispanic origin type (for example, Mexican, Puerto Rican) as their race. In both 1980 and 1990, persons of unspecified race were allocated to one of the four tabulated racial groups (white, black, American Indian, Asian or Pacific Islander), based on their response to the Hispanic origin question. These four race categories conform with the 1979 edition of OMB Directive 15 which mandates that race data must

contain at least these 4 categories. These categories are also more consistent with the race categories in vital statistics.

In the allocation of unspecified race was carried out using cross-tabulations of age, sex, race, type of Hispanic origin, and county of residence. Persons of Hispanic origin and unspecified race were allocated to either white or black, based on their Hispanic origin type. Persons of "other" race and Mexican origin were categorically assumed to be white, while persons in other Hispanic categories were distributed to white and black pro rata within the county-age-sex group. For "other-not-specified" persons who were not Hispanic, race was allocated to white, black, or Asian and Pacific Islander, based on proportions gleaned from sample data. The 20-percent sample (respondents who were enumerated on the longer census form) provided a highly detailed coding of race, which allowed identification of otherwise unidentifiable responses with a specified race category. Allocation proportions were thus established at the State level, which were used to distribute the non-Hispanic persons of "other" race in the 100-percent tabulations.

In 1990 the race modification procedure was carried out using individual census records. Persons whose race could not be specified were assigned to a racial category using a pool of "race donors," which was derived from persons of specified race and the identical response to the Hispanic origin question within the auspices of the same Census District Office. As in 1980, the underlying assumption was that the Hispanic origin response was the major criterion for allocating race. Unlike 1980, persons of Hispanic origin, including Mexican, could be assigned to any racial group, rather than white or black only, and the non-Hispanic component of "other" race was allocated primarily on the basis of geography (District Office), rather than detailed characteristic.

The means by which respondent's age was determined were fundamentally different in the two censuses; therefore, the problems that necessitated the modification were different. In 1980 respondents reported year of birth and quarter of birth (within year) on the census form. When census results were tabulated, persons born in the first quarter of the year (before April 1) had age equal to 1980 minus year of birth, while persons born in the last three quarters had age equal to 1979 minus year of birth.

In 1990 the quarter year of birth was not reported on the census form, so that direct determination of age from year of birth was impossible. In 1990 census publications age is based on respondents' direct reports of age at last birthday. This definition proved inadequate for postcensal estimates, because it was apparent that many respondents had reported their age at time of either completion of the census form or interview by an enumerator, which could occur several months after the April 1 reference data. As a result, age was biased upward. Modification was based on a respecification of age, for most individual respondents, by year of birth, with allocation to first quarter (persons aged 1990 minus year of birth) and last three quarters (aged 1989 minus year of birth) based on a historical series of registered births by month. This process partially restored the 1980 logic for assignment of age. It was not considered necessary to correct for age overstatement and heaping in 1990, because the availability of age and year of birth on the census form provided elimination of spurious year-of-birth reports in the census data before modification occurred.

Populations for 1998--The population of the United States by age, sex, race, and Hispanic origin is shown in the Census Bureau report United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1998. Washington, DC: U.S. Bureau of the Census, http://www.census.gov/population/www/estimates/uspop.html Internet release, June 4, 1999.

Populations for 1997--The population of the United States by age, sex, race, and Hispanic origin is shown in the Census Bureau report United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1997. PPL-91R.U.S. Bureau of the Census. Rounded populations are consistent with U.S. Bureau of the Census file NESTV97. Washington: U.S. Department of Commerce. 1998.

Populations for 1996--The population of the United States by age, sex, race, and Hispanic origin is shown in the Census Bureau report, United States population estimates by age, sex, race and Hispanic origin: 1990 to 1996. U.S. Bureau of the Census. PPL-57. Washington: U.S. Department of Commerce. 1997.

Populations for 1995--The population of the United States by age, sex, race, and Hispanic origin is shown in the Census Bureau report, United States population estimates by age, sex, race and Hispanic origin: 1990 to 1995. U.S. Bureau of the Census. Census file RESDO795, PPL-41. Washington: U.S. Department of Commerce. 1996.

Populations for 1994--The population of the United States by age, sex, race, and Hispanic origin is shown in the Census Bureau report, United States population estimates by age, sex, race and Hispanic origin: 1990 to 1994. U.S. Bureau of the Census. PPL-21. Washington: U.S. Department of Commerce. 1995.

Populations for 1993--The population of the United States by age, sex, race and Hispanic origin is tabulated from Census file RESO793.

Populations for 1992--The population of the United States by age, sex, race and Hispanic origin is tabulated from census file RESPO792.

Populations for 1991--The population of the United States by age, race, and sex is shown in *Current Population Reports*, Series P-25, Number 1095. Monthly population figures were published in *Current Population Reports*, Series P-25, Number 1097.

Populations for 1990--The population of the United States by age, race, and sex, and the population for each State is shown *in Current Population Reports*, Series P-25, Number 1095. The figures have been modified as described above. Monthly population figures were published in *Current Population Reports*, Series P-25, Number 1094.

Population estimates for 1981-89--Birth rates for 1981-89 (except those for cohorts of women) have been revised, based on revised population estimates that are consistent with the 1990 census levels, and thus may differ from rates published in volumes of *Vital Statistics of the United States* for these years. The 1990 census counted approximately 1.5 million fewer persons than had earlier been estimated for April 1, 1990. The revised estimates for the United States by age, race, and sex were published by the U.S. Bureau of the Census in *Current Population Reports*, Series P-25, Number 1095. Population estimates by month are based on data published in *Current Population Reports*, Series P-25, Number 1094 and unpublished data. Unpublished revised estimates for States were obtained from the U.S. Bureau of the Census.

Populations for 1980--The population of the United States by age, race, and sex, and the population for each State are shown in tables 4-2 and 4-3 of volume I, *Vital Statistics of the United States*, 1980. The figures by race have been modified as described above. Monthly population figures were published in *Current Population Reports*, Series P-25, Number 899.

Population estimates for 1971-79--Birth rates for 1971-79 (except those for cohorts of women) have been revised, based on revised population estimates that are consistent with the 1980 census levels, and thus may differ from rates published in volumes of Vital Statistics of the United States for these years. The 1980 census counted approximately 5.5 million more persons than had earlier been estimated for April 1, 1980 (19). The revised estimates for the United States by age, race, and sex were published by the U.S. Bureau of the Census in Current Population Reports, Series P-25, Number 917. Population estimates by month are based on data published in Current Population Reports, Series P-25, Number 899. Unpublished revised estimates for States were obtained from the U.S. Bureau of the Census.

Population estimates for 1961-69--Birth rates for 1961-69 are based on revised estimates of the population and thus may differ slightly from rates published before 1976. The revised estimates used in computing these rates were published in *Current Population Reports*, Series P-25, Number 519. The rates for 1961-64 are based on revised estimates of the population published in *Current Population Reports*, Series P-25, Numbers 321 and 324 and may differ slightly from rates published in those years.

Population estimates for 1951-59--Final intercensal estimates of the population by age, race, and sex and total population by State for 1951-59 are shown in tables 4-4 and 4-5 of volume I, *Vital Statistics of the United States*, 1966. Beginning with 1963 these final estimates have been used to compute birth rates for 1951-59 in all issues of *Vital Statistics of the United States*.

Net census undercounts and overcounts

The U.S. Bureau of the Census has conducted extensive research to evaluate the coverage of the U.S. population (including undercount, overcount, and misstatement of age, race, and sex) in the last five decennial censuses 1950, 1960, 1970, 1980, and 1990. These studies provide estimates of the national population, that were not enumerated or over enumerated in the respective censuses, by age, race, and sex (19-21). The report for 1990 (22) includes estimates of net under enumeration and over enumeration for age, sex, and racial subgroups of the national population, modified for race consistency with previous population counts as described in the section "Population bases."

These studies indicate that there are differential coverages in the censuses among the population subgroups; that is, some age, race, and sex groups are more completely enumerated than others. To the extent that these estimates of overcounts or undercounts are valid, that they are substantial, and that they vary among subgroups and geographic areas, census miscounts can have consequences for vital statistics measures (20). However, the effects of undercounts in the census are reduced to the extent that there is underregistration of births. If these two factors are of equal magnitude, rates based on unadjusted populations are more accurate than those based on adjusted populations because the births have not been adjusted for underregistration.

The impact of net census miscounts on vital statistics measures includes the effects on levels of the rates and effects on differentials among groups.

If adjustments were made for persons who were not counted in the census of population, the size of the denominators would generally increase and the rates would be smaller than without an adjustment. Adjusted rates for 1990 can be computed by multiplying the reported rates by ratios of the 1990 census-level population adjusted for the estimated net census miscounts, which are shown in table E. A ratio of less than 1.0 indicates a net census undercount and would result in a corresponding decrease in the rate. A ratio in excess of 1.0 indicates a net census overcount and would result in a corresponding increase in the rate.

Enumeration of white females in the childbearing ages was at least 97 percent complete for all ages. Among black women, the undercount ranged up to 5 percent. Generally, females in the childbearing ages were more completely enumerated than males for similar race-age groups.

If vital statistics measures were calculated with adjustments for net census miscounts for each of these subgroups, the resulting rates would have been differentially changed from their original levels; that is, rates for those groups with the greatest estimated overcounts or undercounts would show the greatest relative changes due to these adjustments. Thus the racial differential in fertility between the white and the ``All other" population can be affected by such adjustments.

Cohort fertility tables

The various fertility measures shown for cohorts of women are computed from births adjusted for underregistration and population estimates corrected for under enumeration and misstatement of age. Data published after 1974 use revised population estimates prepared by the U.S. Bureau of the Census and have been expanded to include data for the two major racial groups. Heuser has prepared a detailed description of the methods used in deriving these measures as well as more detailed data for earlier years (23).

Parity distribution--The percent distribution of women by parity (number of children ever born alive to mother) is derived from cumulative birth rates by order of birth. The percent of zero-parity women is found by subtracting the cumulative first birth rate from 1,000 and dividing by 10. The proportions of women at parities one through six are found from the following formula:

Percent at N parity = (cum. rate, order N) - (cum. rate, order N + 1))/10

The percent of women at seventh and higher parities is found by dividing the cumulative rate for seventh-order births by 10.

Birth probabilities--birth probabilities indicate the likelihood that a woman of a certain parity and age at the beginning of the year will have a child during the year. Birth probabilities differ from central birth rates in that the denominator for birth probabilities is specific for parity as well as for age.

Age-sex-adjusted birth rates

The age-sex-adjusted birth rates are computed by the direct method. The age distribution of women aged 10-49 years as enumerated in 1940 and the total population of the United States for that year are used as the standard populations. The age-sex-adjusted birth rates show differences in the level of fertility independent of differences in the age and sex composition of the population. It is important not to confuse these adjusted rates with the crude rates shown in other tables.

Total fertility rate

The total fertility rate is the sum of the birth rates by age of mother (in 5-year age groups) multiplied by 5. It is an age-adjusted rate because it is based on the assumption that there are the same number of women in each age group. The rate of 2,058.5 in 1998, for example, means that if a hypothetical group of 1,000 women were to have the same birth rates in each age group that were observed in the actual childbearing population in 1998, they would have a total of 2,058.5 children by the time they reached the end of the reproductive period (taken here to be age 55 years), assuming that all of the women survived to that age.

Intrinsic vital rates

The intrinsic vital rates are calculated from a stable population. A stable population is that hypothetical population, closed to external migration, that would become fixed in age-sex structure after repeated applications of a constant set of age-sex specific birth and death rates. For the mathematical derivation of intrinsic vital rates, see pages 4-13 and 4-14 in the Technical Appendix of volume I, Vital Statistics of the United States, 1962. The technique of calculating intrinsic vital rates is described by Barclay (24).

Seasonal adjustment of rates

The seasonally adjusted birth and fertility rates are computed from the X-11 variant of Census Method II (25). This method of seasonal adjustment used since 1964 differs slightly from the U.S. Bureau of Labor Statistics (BLS) Seasonal Factor Method, which was used for Vital Statistics of the United States, 1964. The fundamental technique is the same in that it is an adaptation of the ratio-to-moving-average method. Before 1964 the method of seasonal adjustment was based on the X-9 variant and other variants of Census Method II. A comparison of the Census Method II with the BLS Seasonal Factor Method shows the differences in the seasonal patterns of births to be negligible.

Computation of percents, medians, and means

Percent distributions, medians, and means are computed using only events for which the characteristic is reported. The "Not stated" category is subtracted from the total before computation of these measures. The asterisk (*) indicates that the numerator and/or denominator number is less than 20.

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TYPE/PRINT U.S. STANDARD IN PERMANENT **CERTIFICATE OF LIVE BIRTH** LOCAL FILE NUMBER BLACK INK FOR INSTRUCTIONS 1. CHILD'S NAME (First, Middle, Last) 2. DATE OF BIRTH (Month, Day, Year) SEE HANDBOOK 4. SEX 5. CITY, TOWN, OR LOCATION OF BIRTH 6. COUNTY OF BIRTH CHILD 7. PLACE OF BIRTH: Hospital Freestanding Birthing Center 8. FACILITY NAME (If not institution, give street and number) ☐ Clinic/Doctor's Office ☐ Residence ☐ Other (Specify) I certify that this child was born alive at the 10. DATE SIGNED 11. ATTENDANT'S NAME AND TITLE (If other than certifier) (Type/Print) place and time and on the date stated. (Month, Day, Year) Name . □ M.D. □ D.O. □ C.N.M. ☐ Other Midwife ☐ Other (Specify) _ Signature > 12. CERTIFIER'S NAME AND TITLE (Type/Print) 13. ATTENDANT'S MAILING ADDRESS (Street and Number or Rural Route Number, City or Town, State, Zip Code) DEATH UNDER Name ONE YEAR OF ☐ M.D. □ D.O. ☐ Hospital Admin. C.N.M. Other Midwife Enter State File Other (Specify) Number of death certificate for this child 15. DATE FILED BY REGISTRAR (Month, Day, Year) 14. REGISTRAR'S SIGNATURE 16a. MOTHER'S NAME (First, Middle, Last) 16b. MAIDEN SURNAME 17. DATE OF BIRTH (Month, Day, Year) MOTHER 18. BIRTHPLACE (State or Foreign Country) 19a. RESIDENCE - STATE 19c. CITY, TOWN, OR LOCATION 19b. COUNTY 19d. STREET AND NUMBER 19e. INSIDE CITY LIMITS? (Yes or no.) 20. MOTHER'S MAILING ADDRESS (If same as residence, enter Zip Code on 21. FATHER'S NAME (First, Middle, Last) 22. DATE OF BIRTH (Month, Day, Year) 23. BIRTHPLACE (State or Foreign Country) **FATHER** 24. I certify that the personal information provided on this certificate is correct to the best of my knowledge and belief. INFORMANT Signature of Parent or Other Informant INFORMATION FOR MEDICAL AND HEALTH USE ONLY 27. EDUCATION OF HISPANIC ORIGIN? (Specify No or Yes-If yes, specify 26. RACE-American Indian, Black, White, etc. (Specify only highest grade completed) Cuban, Mexican, Puerto Rican, etc.) (Specify below) Elementary/Secondary (0-12) College (1-4 or 5+ 25a. □ No ☐ Yes 26a. 27a. MOTHER **FATHER**

MULTIPLE BIRTHS Enter State File Number for Mate(s) LIVE BIRTH(S)

FETAL DEATH(S)

Specify:				1
25b. □ No	☐ Yes	26	b.	27ь.
Specify:				
	28. PREGNANC (Complete eac		29. MOTHER MARRIED? (At birth, conception, or any time between) (Yes or no)	30. DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)
(Do not include this child) (Spontaneous and		OTHER TERMINATIONS	7	
		(Spontaneous and induced at any time after conception)	31. MONTH OF PREGNANCY PRENATAL CARE BEGAN – First, Second, Third, etc. (Specify)	32. PRENATAL VISITS - Total Number (If none, so state)
28a. Now Living	28b. Now Dead	28d.	— BEGAN - First, Second, Tillid, etc. (Specify)	in none, 30 state)
Number	Number	Number	33. BIRTH WEIGHT (Specify unit)	34. CLINICAL ESTIMATE OF GESTATION (Week
☐ None	☐ None	☐ None		
		28e. DATE OF LAST OTHER TERMINATION (Month, Ye	35a. PLURALITY—Single, Twin, Triplet, etc. (Specify)	35b. IF NOT SINGLE BIRTH – Born First, Second, Third, etc. (Specify)
36 . APG	AR SCORE	37a. MOTHER TRANSFERRED	PRIOR TO DELIVERY? No Yes If Yes, enter name	e of facility transferred from:
36a. 1 Minute	36b. 5 Minutes			
		37b. INFANT TRANSFERRED	□ No □ Yes If Yes, enter name of facility transferred to	o:

3. TIME OF BIRTH

38a. MEDICAL RISK FACTORS FOR THIS PREGNANCY (Check all that apply)	40. COMPLICATIONS OF LABOR AND/OR DELIVERY (Check all that apply)	43. CONGENITAL ANOMALIES OF CHILD (Check all that apply)
Anemia (Hct. <30/Hgb. <10)	Febrile (> 100 °F. or 38 °C.) 01 □ Meconium, moderate/heavy 02 □ Premature rupture of membrane (> 12 hours) 03 □ Abruptio placenta 04 □ Placenta previa 05 □ Other excessive bleeding 06 □ Seizures during labor 07 □ Precipitous labor (< 3 hours)	Anencephalus 0.00 Spina bifida/Meningocele 0.00 Spina bifida/Meningocele 0.00 Hydrocephalus 0.00 Microcephalus 0.00 Other central nervous system anomalies (Specify) 0.00 Heart malformations 0.00 Other circulatory/respiratory anomalies (Specify) 0.00 Rectal atresia/stenosis 0.00 Tracheo-esophageal fistula/ Esophageal atresia 0.00 Omphalocele/ Gastroschisis 1.00 Other gastrointestinal anomalies (Specify) 1.00 Processors 1.00 Other gastrointestinal anomalies (Specify) 1.00 Processors 1.00 Pro
Other	(Specify) 41. METHOD OF DELIVERY (Check all that apply)	Malformed genitalia
38b. OTHER RISK FACTORS FOR THIS PREGNANCY (Complete all items) Tobacco use during pregnancy Yes □ No □ Average number cigarettes per day Alcohol use during pregnancy Yes □ No □ Average number drinks per week	Vaginal .01 □ Vaginal birth after previous C-section .02 □ Primary C-section .03 □ Repeat C-section .04 □ Forceps .05 □ Vacuum .06 □	(Specify) 14 Cleft lip/palate 15 Polydactyly/Syndactyly/Adactyly 16 Club foot 17 Diaphragmatic hernia 18
Weight gained during pregnancy lbs.	42. ABNORMAL CONDITIONS OF THE NEWBORN (Check all that apply)	Other musculoskeletal/integumental anomalies (Specify)19
39. OBSTETRIC PROCEDURES (Check all that apply)	Anemia (Hct. < 39/Hgb. < 13)	Down's syndrome
Amniocentesis 01 □ Electronic fetal monitoring 02 □ Induction of labor 03 □ Stimulation of labor 04 □ Tocolysis 05 □ Ultrasound 06 □ None 00 □	Fetal alcohol syndrome 03 □ Hyaline membrane disease/RDS 04 □ Meconium aspiration syndrome 05 □ Assisted ventilation < 30 min	None
Other	Other 09	

Table A. Percent of birth records on which specified items were not stated: United States each State, and Territory, 1998

[Page 1 of 2)

[By place of residence]

		ce of res											
	Number	Place	Attendant	Mother's					Educational	Live-	Length	Month prenatal	Number of
Area	of	of	at	birth-	Father's	Father's		ic Origin	attainment	birth	of	care	prenatal
m . 3 . 6	births	birth	birth	place	age	race	Mother	Father	Mother	order	Gestation	began	visits
Total of reporting areas 1/	3,941,553	0.0	0.0	0.3	14.4	14.8	1.2	15.3	1.5	0.7	1.0	2.8	3.6
	-,,,,,,,,			-									
Alabama	62,074	-	-	0.0	23.8	23.8	. 0	23.8	0.3	0.0	0.1	0.3	0.3
Alaska	9,926	. 0	.0	.2	12.9	14.7	. 5	13.7	2.0	. 2	.3	1.7	1.5
Arizona Arkansas	78,243 36,865	.0	.0	.3	21.5	23.3	1.3	23.6	2.0	. 4	.2	2.1	3.6
California	521,661	.0	.1	.3	7.4	6.8	.7	6.3	1.7	.1	2/ 5.4	1.6	2.9
Colorado	59,577	-	-	. 2	9.6	10.2	. 0	10.3	1.4	.0	.0	.7	. 9
Connecticut	43,820	. 0	.0	. 4	9.4	10.8	5.3	14.4	3.9	8.3	.1	5.4	9.0
Delaware District of Columbia	10,578 7,686	.0	.0	.3	30.7 44.9	31.6 51.3	.3	30.7 44.7	9.0	.3	.1	.9 15.3	18.6
Florida	195,637	. 0	_	1.2	17.6	17.7	.1	19.1	.4	.0	1.1	.8	1.7
Georgia	122,368	. 0	.0	. 2	18.0	18.4	. 8	18.6	2.0	. 3	.1	2.9	2.7
Hawaii	17,583	-	.0	.1	8.4	8.6 11.2	.1	8.4	. 4	.0	10.4	5.3	6.1
Idaho Illinois	19,391 182,588	.0	.0	.3	8.6 15.5	11.2	1.5	11.4	4.2	1.3	.6	1.8	2.6
Indiana	85,122	.3	.1	.2	13.5	13.7	. 4	13.7	.9	. 4	.1	1.5	2.6
Iowa	37,282	. 0	.0	. 4	12.1	14.2	1.1	15.0	1.5	.1	.1	1.3	3.9
Kansas	38,422	.0	.0	.1	10.6	10.7	1.0	12.1	. 4	.0	.1	. 6	.8
Kentucky Louisiana	54,329 66,888	.0	.1	.0	22.0	22.7	.1	23.7	.2	.1	.1	1.1	1.3
Maine	13,733	-	.0	-	10.0	15.0	4.3	18.7	.8	.3	.1	.5	.5
Maryland	71,972	. 0	.0	.7	8.4	10.1	. 6	6.8	2.0	1.6	.5	4.7	8.2
Massachusetts	81,411	. 0	.0	.0	7.8	7.6	. 4	6.8	.3	. 2	.2	. 9	. 3
Michigan Minnesota	133,666 65,202	.0	.2	.1	16.0	18.0 11.3	5.4 5.2	22.5 15.4	1.4	.6	1.0	3.9 5.6	5.4
Mississippi	42,939	.0	.0	.1	24.2	24.0	.1	24.3	.2	.1	.2	.6	1.1
	, , , , , , , , , , , , , , , , , , , ,												
Missouri	75,358	. 0	.0	. 2	18.3	18.3	.1	18.5	. 8	. 3	. 2	1.4	2.0
Montana Nebraska	10,795 23,534	.0	.1	0	10.2	11.5	2.0	13.4	. 4	.0	.1	.5	.5
Neuraska Nevada	28,699	. 0	.0	.8	22.4	23.3	.7	22.0	3.2	1.1	1.1	6.2	10.0
New Hampshire	14,429	-	-	.0	7.2	9.1	3.5	11.6	.8	2.8	.2	1.7	1.8
New Jersey	114,550	.1	.1	. 2	8.9	11.1	. 4	9.4	2.3	. 2	. 2	5.0	6.0
New Mexico New York	27,318 258,207	.0	.0	2.8	27.5 15.7	26.8 16.1	.0 6.2	26.8	5.1	.5	.7	5.7	5.5
North Carolina	111,688	.0	.0	.0	17.2	17.2	.0	17.1	.2	.0	.1	.5	.5
North Dakota	7,932	-	-	.0	7.9	9.4	3.1	12.3	. 2	-	.1	.6	.3
Ohio	152,794	. 0	.0	.2	15.2	16.0	. 4	15.8	.5	. 2	.0	.5	1.5
Oklahoma Oregon	49,461 45,273	. 0	.1	.1	17.0 11.6	18.9	1.1	18.8	2.0	12.2	3.2	10.9	12.8
Pennsylvania	145,899	.0	.0	.8	5.7	4.3	.6	3.8	2.3	. 4	.2	3.2	4.8
Rhode Island	12,599	-	-	.3	13.6	14.2	12.8	23.1	2.9	2.2	2.6	8.8	9.8
			_	1 _				l	1	1		1	1
South Carolina South Dakota	53,877 10,288	.0	.0	.3	28.8	28.9 12.1	.1	28.8	4.6	.1	.2	1.5	1.6
Tennessee	77,396	.0	.0	.0	16.1	16.2	.0	16.3	.2	.0	.0	1.1	.4
Texas	342,283	.0	.0	.4	15.3	15.4	.3	15.4	1.3	1.2	.6	2.0	5.2
Utah	45,165	.0	.0	.2	9.7	10.8	. 3	9.3	.9	. 2	.1	2.9	3.0
									1.	1			
Vermont	6,582	.0	-	.1	9.1	15.3	2.6	16.4	2.5	. 4	.2	3.6	1.2
Virginia Washington	94,351 79,663	.0	.1	.1	17.8	18.6	.1	18.5	.5 10.6	1.1	1.0	.6	1.2
West Virgin	20,747	.1	.0	.1	13.3	14.2	.2	14.6	.5	.2	.5	4.3	3.2
Wisconsin	67,450	-	-	.0	28.4	28.4	.0	28.4	.1	. 0	.0	. 2	.3
Wyoming	6,252	.0	-	.0	13.6	14.0	.1	13.9	. 4	.0	.1	. 5	.5
Duranta Dira	60 41-		,		2.0	1					1		,
Puerto Rico Virgin Islands	60,412 1,800	.1	.1	-	2.9	3.4	3.2	26.4	1.7	.0	.1	. 2	1.7
Guam	4,318	.1	.5	.1	23.6	24.9	.4	23.3	.6	.6	.2	.8	1.2
American Samoa	1,688	.1	-	5.9	34.2	34.8				-			
Northern Marianas	1,462	. 2	1.0	0.3	9.6	24.4			25.0	23.1	26.3	56.5	25.0
See footnotes at end of table.													

Table A. Percent of birth records on which specified items were not stated: United States each State, and Territory, 1998

(Page 2 of 2)

[By place of residence]

Area	Number of births	Birth weight	5-minute Apgar score *	Medical risk factors	Tobacco use	Alcohol use	Weight gain	Obstetric procedures	Complica- tions of labor and/ or delivery	Method of delivery	Abnormal condi- tions of newborn	Congenita: anomalies
otal of eporting areas 1/	3,941,553	0.1	0.6	1.4	1.5	1.5	8.3	0.9	1.2	0.9	2.4	1.7
labama	62,074	0.0	0.2	3/ 0.0	0.0	0.1	3.1	0.0	0.0	0.3	0.0	0.1
laska rizona	9,926 78,243	.2	.6	.3	.6 1.8	.6 2.0	1.6	.3	.3	. 4	.4	. 3
rkansas	36,865	.1	3.6	.5	.9	1.0	9.5	.4	.5	.7	.4	. 4
alifornia	521,661	. 0		.0				.0	.0	. 0	.0	. 0
olorado	59,577	. 0	.3	.0	.1	.1	3.4		.0	.0	.0	.1
onnecticut	43,820	.0	1.5	11.8	8.1	7.4	18.6	10.4	12.2	4.5	18.9	20.1
elaware	10,578	. 0	. 4	. 0	. 2	. 2	1.9	.0	.0	. 0	.1	.1
istrict of Columbia lorida	7,686 195,637	.1	1.1	.0	.1	.1	16.4	.0	.0	.0	.0	.0
101104	193,037		. 2	.0			4.4		.0	. 0	.0	.0
eorgia	122,368	.0	.5	. 4	. 4	. 4	5.6	.0	.0	. 3	.0	.0
awaii daho	17,583 19,391	2.8	7.2	16.2	.1	1.0	13.8	9.7	7.3	16.5	17.2	18.9
llinois	182,588	.1	.3	.1	1.0	.2	3.9	.0	.1	. 4	.1	.1
ndiana	85,122	. 5	.5	.1		. 4	3.2	.1	. 2	. 4	.6	.6
owa	37,282	.1	.3	.2	3.3	3.8	6.9	.1	. 3	. 4	.3	. 4
ansas	38,422	. 0	. 4	3/ .5	. 5	. 5	. 7	. 4	. 4	2.9	. 4	. 4
entucky	54,329	.1	. 4	6.1	4.5	4.5	8.6	3.9	6.5	4.1	11.3	10.3
ouisiana aine	66,888 13,733	.1	.3	.0	1.1	1.4	6.8 1.8	.0	.1	.1	.1	.0
					1		1.0		1			
aryland assachusetts	71,972 81,411	.1	.5	.0	.5	.7	8.3	.0	.0	. 2	1.0	1.0
ichigan	133,666	.3	. 4	.1	1.8	1.5	9.4	.1	.1	.6	1.0	.1
innesota	65,202	.1	.8	8.3	7.2	7.3	18.1	6.5	7.6	4.5	8.2	8.5
ississippi	42,939	. 0	. 4	.1	. 2	. 2	4.6	.1	.1	. 2	.1	.1
issouri	75,358	. 0	.5	.1	. 4	. 4	3.0	.1	.1	.7	.1	.1
ontana	10,795	. 0	. 4	.1	. 8	1.5	1.4	.1	.1	. 5	. 2	.1
ebraska	23,534	. 0	.2	.0	. 9	.9	1.3	.0	.0	. 2	6/ .0	.0
evada ew Hampshire	28,699 14,429	.1	1.7	10.7	2.2	2.5	11.8	.5	6.6	1.5	12.4	12.5
_											l	
ew Jersey ew Mexico	114,550 27,318	1.6	.2 4.0	2.3	1.0	1.0	6.1	.1	1.6	.5	26.2	1.7
ew Mexico ew York	258,207	.1	.2	1.1	4/ 4.3	.2	9.6	.2	.4	.3	7/ 0.9	1.0
orth Carolina	111,688	. 0	.3	.0	.1	.1	2.3	.0	.0	. 4	.0	. 4
orth Dakota	7,932	.1	. 4	.1	. 6	.7	1.3	.1	.1	1.0	.1	.1
hio	152,794	.1	.2	.0	. 3	.1	2.6	.0	.0	. 4	.0	. 0
klahoma	49,461	. 6	5.5	34.0	23.9	24.2	34.6	30.2	33.0	26.9	39.5	40.3
regon ennsylvania	45,273 145,899	.0	.4	.5	.7	.7	3.0 8.3	.0	.0	.2	.0	.0
hode Island	12,599	. 4	.7	8.4	2.7	2.9	12.0	8.3	8.4	.7	18.9	19.3
outh Carolina	53,877	. 0	. 4	.0	.1	.1	2.6	.0	.0	.5	.0	.0
outh Dakota	10,288	.0	.3	.0			1.4	.0	.0	.2	.0	.0
ennessee	77,396	. 0	.3	.0	. 2	. 2	6.1	.0	.1	. 4	.1	. 0
exas tah	342,283 45,165	.1		5/ 1.3	. 4	.5	19.6	.1	8/.1	.7	6/ .2	. 3
can		.0	İ		. 5	. 4	4.1		.0	.0	. 2	. 4
ermont	6,582	. 2	.2	.1	. 9	.5	2.0	.1	.1	. 0	. 2	. 2
irginia ashington	94,351 79,663	.3	. 4	.0 5.5	.1 5.2	.1	4.8	7.1	.0 9.3	. 4	.1 11.0	.1
est Virginia	20,747	.1	.2	.0	.8	2.4	9.0	.0	.0	. 2	.0	.0
isconsin	67,450	. 0	. 4	.1	.1	.1	1.6	.0	.1	. 0	9/ .1	.1
yoming	6,252	. 0	. 4	.0	1.1	1.1	2.1	.0	.0	. 2	.0	. 0
uerto Rico	60,412	.0	.2	.0	.0	.0	.1	.0	.1	.0	.1	.1
irgin Islands uam	1,800	.1	2.9	6.4 5.4	2.3	2.3	9.8	2.5	7.4	3.0 1.3	8.7 5.7	6.8 5.5
merican Samoa	4,318 1,688	.1	1.3		1.1	1.3	4.0	1.9	2.9	1.3	3.7	
orthern Marianas	1,462	12.3	21.5			<u> </u>		<u> </u>	L	43.6	l	
 Quantity more than zero but less than Data not available. 	0.05.											
Excludes data for Puerto Rico, Virgin Is			and the Commonwea	alth of the Norther	n Marianas.							
California reports date last normal men not report clinical estimate of gestation.	ses began but does	S										
/ Kansas does not report Rh sensitization	n.											
New York city (but not New York State	reports tobacco u											
Texas does not report genital herpes ar Nebraska and Texas do not report birth												
New York city does not report assisted		ın										
0 minutes and assisted ventilation of 30 7 Texas does not report anesthetic comp												

Table B. Births by State of Occurrence and Residence for Births Occurring in the 50 States and the District of Columbia, 1998

		Decidence
Area	Occurrence	Residence
United States	3,945,192	3,941,553
Alabama	61,209	62,074
Alaska	9,832	9,926
Arizona	78,076	78,243
Arkansas	35,763	36,865
California	522,290	521,661
Colorado Connecticut	59,816 43,669	59,577 43,820
Delaware	11,023	10,578
District of Columbia	15,138	7,686
Florida	195,734	195,637
Georgia	123,262	122,368
Hawaii	17,619	17,583
Idaho Illinois	18,959 179,462	19,391 182,588
Indiana	85,176	85,122
Iowa	37,433	37,282
Kansas	37,450	38,422
Kentucky	52,880	54,329
Louisiana	67,100	66,888
Maine	13,530	13,733
Maryland	67,408	71,972
Massachusetts	82,216	81,411
Michigan	132,443	133,666
Minnesota	65,094	65,202
Mississippi	41,942	42,939
Missouri	77,701	75,358
Montana	10,742	10,795
Nebraska Nevada	23,915 28,218	23,534 28,699
New Hampshire	13,933	14,429
New Jersey	111,709	114,550
New Mexico	26,960	27,318
New York State only	135,408	138,296
New York City only	124,240	119,911
North Carolina	112,785	111,688
North Dakota	9,156	7,932
Ohio	153,400	152,794
Oklahoma	48,449 46,278	49,461 45,273
Oregon Pennsylvania	146,465	145,899
Rhode Island	13,489	12,599
South Carolina	51,701	53,877
South Dakota	10,391	10,288
Tennessee	82,412	77,396
Texas	346,101	342,283
Utah	46,128	45,165
Vermont	6,257	6,582
Virginia Washington	92,021	94,351
Washington West Virginia	78,980 21.574	79,663 20,747
-	21,574	20,747
Wisconsin	66,421	67,450
Wyoming	5,834	6,252
Foreign Residents	-	3,639
Puerto Rico	-	21
Virgin Islands	-	19
Guam	-	4
American Samoa Northern Marianas	-	-
Canada] -	111
Cuba	-	2
Mexico	-	2,818
Remainder of world - Quantity zero.	-	664

- Quantity zero.

Table C. Lower and upper 95 percent confidence limit factors for a birth rate based on a Poisson variable of 1-99 births

Number of births	L	U	Number of births	L	U
1	0.02532	5.57164	51	0.74457	1.31482
2	0.12110	3.61234	52	0.74685	1.31137
3	0.20622	2.92242	53	0.74907	1.30802
4	0.27247	2.56040	54	0.75123	1.30478
5	0.32470	2.33367	55	0.75334	1.30164
6	0.36698	2.17658	56	0.75539	1.29858
7	0.40205	2.06038	57	0.75739	1.29562
8	0.43173	1.97040	58	0.75934	1.29273
9	0.45726	1.89831	59	0.76125	1.28993
10	0.47954	1.83904	60	0.76311	1.28720
11	0.49920	1.78928	61	0.76492	1.28454
12	0.51671	1.74680	62	0.76669	1.28195
13	0.53246	1.71003	63	0.76843	1.27943
14	0.54671	1.67783	64	0.77012	1.27698
15	0.55969	1.64935	65	0.77178	1.27458
16	0.57159	1.62394	66	0.77340	1.27225
17	0.58254	1.60110	67	0.77499	1.26996
18	0.59266	1.58043	68	0.77654	1.26774
19	0.60207	1.56162	69	0.77806	1.26556
20	0.61083	1.54442	70	0.77955	1.26344
21	0.61902	1.52861	71	0.78101	1.26136
22	0.62669	1.51401	72	0.78244	1.25933
23	0.63391	1.50049	73	0.78384	1.25735
24	0.64072	1.48792	74	0.78522	1.25541
25	0.64715	1.47620	75	0.78656	1.25351
26	0.65323	1.46523	76	0.78789	1.25165
27	0.65901	1.45495	77	0.78918	1.24983
28	0.66449	1.44528	78	0.79046	1.24805
29	0.66972	1.43617	79	0.79171	1.24630
30	0.67470	1.42756	80	0.79294	1.24459
31	0.67945	1.41942	81	0.79414	1.24291
32	0.68400	1.41170	82	0.79533	1.24126
33	0.68835	1.40437	83	0.79649	1.23965
34	0.69253	1.39740	84	0.79764	1.23807
35	0.69654	1.39076	85	0.79876	1.23652
36	0.70039	1.38442	86	0.79987	1.23499
37	0.70409	1.37837	87	0.80096	1.23350
38	0.70766	1.37258	88	0.80203	1.23203
39	0.71110	1.36703	89	0.80308	1.23059
40	0.71441	1.36172	90	0.80412	1.22917
41	0.71762	1.35661	91	0.80514	1.22778
42	0.72071	1.35171	92	0.80614	1.22641
43	0.72370	1.34699	93	0.80713	1.22507
44	0.72660	1.34245	94	0.80810	1.22375
45	0.72941	1.33808	95	0.80906	1.22245
46	0.73213	1.33386	96	0.81000	1.22117
47	0.73476	1.32979	97	0.81093	1.21992
48	0.73732	1.32585	98	0.81185	1.21868
49	0.73981	1.32205	99	0.81275	1.21746
50	0.74222	1.31838			

Table D. Sources for resident population and population including Armed Forces abroad: Birth- and death-registration States, 1900-1932, and United States, 1900-1998.

Year	Source
1998	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1998. Washington: U.S. Bureau of the Census. Internet release, June 4, 1999.
1997	Http://www.census.gov/population/www/estimates/uspop.html. U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1997. PPL-91R. Rounded populations consistent with U.S. Bureau of the Census file NESTV97. Washington:U.S.
1996	Department of Commerce. 1998. U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1996. PPL-57. Washington: U.S. Department of Commerce. 1997.
1995	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1995. Census file RESD0795, PPL-41. Washington: U.S. Department of Commerce. 1996.
1994	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1990 to 1994. PPL-21. Washington: U.S. Department of Commerce. 1995.
1993	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1993. Census file RESO793. Washington: U.S. Department of Commerce. 1995.
1992	U.S. Bureau of the Census, United States population estimates, by age, sex, race, and Hispanic origin: 1992. Census file RESPO792. Washington: U.S. Department of Commerce. 1994.
1991 1990	U.S. Bureau of the Census, Unpublished data consistant with Current Population Reports, Series P-25, No. 1095, Feb. 1993.
1990	U.S. Bureau of the Census, Unpublished data from the 1990 census. 1990 CPH-L-74 and unpublished data consistent
1989	with Current Population Reports, Series P-25, No. 1095, Feb. 1993.
1988	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1057, Mar. 1990.
1986-87	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1045, Jan. 1990.
1985	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1022, Mar. 1988.
1984	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1000, Feb. 1987.
1983	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 985, Apr. 1986.
1982	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 965, Mar. 1985.
1981	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 949, May 1984.
1980	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 929, May 1983.
	U.S. Bureau of the Census, U.S. Census of Population: 1980, Number of Inhabitants, PC80-1-A1, United States
1971-79	Summary, 1983.
1970	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 917, July 1982.
	U.S. Bureau of the Census, U.S. Census of Population: 1970, Number of Inhabitants, Final Report PC(1)-A1,
1961-69	United States Summary, 1971.
1960	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 519, April 1974.
1951-59	U.S. Bureau of the Census, U.S. Census of Population: 1960, Number of Inhabitants, PC(1)-A1, United States
1940-50	Summary, 1964.
1930-39	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 310, June 30, 1965.
	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 499, May 1973.
1920-29	U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 499, May 1973, and National Office of
	Vital Statistics, Vital Statistics Rates in the United States, 1900-1940, 1947.
1917-19	National Office of Vital Statistics, Vital Statistics Rates in the United States,
1900-1916	1900-1940, 1947.
	Same as for 1930-39.
	Same as for 1920-29.

Table E. Ratio of census-level resident population to resident population adjusted for estimated net census undercount by age, sex, and race: April 1, 1990

		Total			White			Black			
Age	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female		
All ages	0.9815	0.9721	0.9906	0.9802	0.9728	0.9873	0.9432	0.9151	0.9699		
10-14	0.9882	0.9891	0.9873	0.9830	0.9841	0.9818	0.9591	0.9586	0.9595		
15-19	1.0166	1.0198	1.0133	1.0094	1.0128	1.0059	0.9988	1.0016	0.9959		
20-24	1.0002	0.9987	1.0017	0.9975	0.9985	0.9966	0.9593	0.9432	0.9753		
25-29	0.9591	0.9439	0.9748	0.9558	0.9441	0.9681	0.9123	0.8732	0.9510		
30-34	0.9687	0.9487	0.9892	0.9669	0.9518	0.9828	0.9129	0.8599	0.9651		
35-39	0.9790	0.9628	0.9954	0.9764	0.9643	0.9888	0.9303	0.8808	0.9778		
40-44	0.9901	0.9758	1.0044	0.9875	0.9764	0.9988	0.9410	0.8943	0.9850		
45-49	0.9775	0.9633	0.9916	0.9762	0.9648	0.9877	0.9302	0.8807	0.9762		
50-54		0.9623			0.9651			0.8802			
55 years and over		0.9758			0.9783		•••	0.9294			
15-44			0.9954			0.9890			0.9739		
15-54		0.9710			0.9710			0.9046			

^{...} Category not applicable.

Table 4-1. Population of Birth- and Death-Registration States, 1990-1932, and United States, 1900-1998

	Unite	ed States/1	{Population enumer	ated as of April 1 for 1940 United S	0, 1950, 1960, 1970, 1980 States/1		d as of July 1 for all other ation States	years) Death-registr	ation States
	Population			Population					
Yea	r including	Population	Year	including	Population	Number	Population	Number	Population
	Armed Forces	residing		Armed Forces	residing	of	residing	of	residing
	abroad	in area		abroad	in area	States/2	in area	States/2	in area
1998	270,509,187	270,298,524	1950	151,132,000	150,697,361				
1997	267,901,000	267,636,061		149,188,000	148,665,000				
1996	265,556,890	265,283,783		146,631,000	146,093,000				
1995	263,033,968	262,755,270		144,126,000	143,446,000				
1994	260,659,690	260,340,990		141,389,000	140,054,000				
1993	258,119,768	257,783,004		139,928,000	132,481,000				
1992	255,457,501	255,077,536		138,397,000	132,885,000				
1991	252,688,000	252,177,000		136,739,000	134,245,000				
1990	249,225,000	248,709,873		134,860,000	133,920,000				
1989	247,342,000	246,819,000		133,402,000	133,121,000				
1988	245,021,000	244,499,000		131,820,000	131,669,275				
1987	242,804,000	242,289,000		131,028,000	130,879,718				
1986	240,651,000	240,133,000		129,969,000	129,824,939				
1985	238,466,000	237,924,000		128,961,000	128,824,829				
1984	236,348,000	235,825,000		128,181,000	128,053,180				
1983	234,307,000	233,792,000		127,362,000	127,250,232				
1982	232,188,000	233,792,000		126,485,000	126,373,773				
1981	229,966,000	229,466,000		125,690,000	125,578,763		• • •		
1980	227,061,000	229,400,000		124,949,000	124,840,471	 47	118,903,899	47	118,903,899
		, ,			, ,	46		47	, ,
1979	225,055,000	224,567,000		124,149,000	124,039,648	46	117,455,229	47	118,148,987
1978	222,585,000	222,095,000		123,188,000	123,076,741	46	116,544,946		117,238,278
1977	220,239,000	219,760,000			121,769,939	44	115,317,450	46 44	115,317,450
1976	218,035,000	217,563,000			120,501,115		113,636,160		113,636,160
1975	215,973,000	215,465,000			119,038,062	40	104,320,830	42	107,084,532
1974	213,854,000	213,342,000			117,399,225	35	90,400,590	41	103,822,683
1973	211,909,000	211,357,000			115,831,963	33	88,294,564	40	102,031,555
1972	209,896,000	209,284,000			114,113,463	33	87,000,295	39	99,318,098
1971	207,661,000	206,827,000			111,949,945	30	81,072,123	38	96,788,197
1970	204,270,000	203,211,926			110,054,778	30	79,560,746	37	92,702,901
1969	202,677,000	201,385,000			108,541,489	27	70,807,090	34	87,814,447
1968	200,706,000	199,399,000			106,466,420	23	63,597,307	34	86,079,263
1967	198,712,000	197,457,000		105,063,000	104,512,110	22	61,212,076	33	83,157,982
1966	196,560,000	195,576,000		104,550,000	103,202,801	20	55,153,782	30	79,008,412
1965	194,303,000	193,526,000		103,414,000	103,265,913	20	55,197,952	27	70,234,775
1964	191,889,000	191,141,000			101,965,984	11	32,944,013	26	66,971,177
1963	189,242,000	188,483,000			100,549,013	10	31,096,697	24	61,894,847
1962	186,538,000	185,771,000			99,117,567			24	60,963,309
1961	183,691,000	182,992,000			97,226,814			23	58,156,740
1960	179,933,000	179,323,175			95,331,300			22	54,847,700
1959	177,264,000	176,513,000			93,867,814			22	53,929,644
1958	174,141,000	173,320,000			92,406,536			20	47,470,437
1957	171,274,000	170,371,000			90,491,525			18	44,223,513
1956	168,221,000	167,306,000			88,708,976			17	38,634,759
1955	165,275,000	164,308,000	1907		87,000,271			15	34,552,837
1954	162,391,000	161,164,000	1906		85,436,556			15	33,782,288
1953	159,565,000	158,242,000	1905		83,819,666			10	21,767,980
1952	156,954,000	155,687,000	1904		82,164,974			10	21,332,076
1951	154,287,000	153,310,000			80,632,152			10	20,943,222
			1902		79,160,196			10	20,582,907
			1901		77,585,128			10	20,237,453
			1900		76,094,134			10	19,965,446
Category not a	- lankin				, , , ,				

^{...} Category not applicable

^{1/}Alaska included beginning 1959 and Hawaii, 1960.

^{2/}The District of Columbia is not included in "Number of States," but it is represented in all data shown for each year.

Table 4-2. Estimated Population of the United States, by Age, Race, and Sex: July 1, 1998

[Figures include Armed Forced stationed in the United States but exclude those stationed outside the United States.]

		All races			White			Black			American	Indian	Asian	or Pacific Is	lander
Age	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All ages	270,298,524	132,046,327	138,252,197	223,000,729	109,489,380	113,511,349	47,297,795	22,556,947	24,740,848	34,430,569	16,340,144	18,090,425	2,359,946	1,168,063	1,191,883
Under 1	3,776,389	1,929,312	1,847,077	2,993,441	1,532,601	1,460,840		396,711	386,237	560,713	284,257	276,456	40,887	20,523	20,364
1-4 years	15,189,749	7,766,906	7,422,843	12,058,700	6,179,436	5,879,264	3,131,049	1,587,470	1,543,579	2,266,865	1,149,017	1,117,848	158,834	80,347	78,487
5-9 years	19,920,862	10,195,027	9,725,835	15,686,897	8,038,094	7,648,803	4,233,965	2,156,933	2,077,032	3,170,130	1,609,577	1,560,553	224,191	113,894	110,297
10-14 years	19,241,808	9,854,788	9,387,020	15,202,008	7,799,351	7,402,657	4,039,800	2,055,437	1,984,363	2,992,945	1,520,299	1,472,646	243,014	123,463	119,551
15-19 years	19,539,327	10,045,566	9,493,761	15,492,233	7,991,575	7,500,658	4,047,094	2,053,991	1,993,103	3,024,366	1,537,293	1,487,073	228,853	115,032	113,821
15-17 years	11,743,251	6,049,165	5,694,086	9,301,764	4,803,090	4,498,674	2,441,487	1,246,075	1,195,412	1,803,798	922,334	881,464	143,997	72,700	71,297
18-19 years	7,796,076	3,996,401	3,799,675	6,190,469	3,188,485	3,001,984	1,605,607	807,916	797,691	1,220,568	614,959	605,609	84,856	42,332	42,524
20-24 years	17,674,134	8,996,110	8,678,024	14,093,581	7,224,785	6,868,796	3,580,553	1,771,325	1,809,228	2,633,203	1,300,285	1,332,918	188,975	95,301	93,674
25-29 years	18,588,114	9,246,888	9,341,226	14,867,714	7,473,057	7,394,657	3,720,400	1,773,831	1,946,569	2,622,710	1,253,815	1,368,895	192,668	99,429	93,239
30-34 years	20,186,296	10,006,893	10,179,403	16,347,087	8,201,666	8,145,421	3,839,209	1,805,227	2,033,982	2,727,967	1,279,155	1,448,812	181,362	91,972	89,390
35-39 years	22,625,784	11,256,018	11,369,766	18,626,277	9,364,283	9,261,994	3,999,507	1,891,735	2,107,772	2,883,922	1,354,291	1,529,631	184,914	92,388	92,526
40-44 years	21,894,075	10,844,698	11,049,377	18,177,682	9,098,379	9,079,303	3,716,393	1,746,319	1,970,074	2,676,120	1,251,755	1,424,365	169,796	82,912	86,884
45-49 years	18,859,365	9,252,354	9,607,011	15,830,743	7,858,712	7,972,031	3,028,622	1,393,642	1,634,980	2,153,894	984,132	1,169,762	138,416	67,158	71,258
50-54 years	15,725,519	7,647,607	8,077,912	13,473,817	6,624,094	6,849,723	2,251,702	1,023,513	1,228,189	1,587,413	711,774	875,639	108,289	52,080	56,209
55-59 years	12,406,909	5,956,213	6,450,696	10,672,553	5,180,801	5,491,752	1,734,356	775,412	958,944	1,249,295	546,840	702,455	80,560	38,082	42,478
60-64 years	10,269,061	4,849,497	5,419,564	8,853,308	4,231,745	4,621,563		617,752	798,001	1,028,261	439,816	588,445	62,606	29,241	33,365
65-69 years	9,593,497	4,392,568	5,200,929	8,340,929	3,857,225	4,483,704	1,252,568	535,343	717,225	936,144	400,002	536,142	49,192	22,202	26,990
70-74 years	8,801,796	3,857,005	4,944,791	7,821,943	3,452,264	4,369,679		404,741	575,112	729,672	299,327	430,345	39,937	17,868	22,069
75-79 years	7,218,007	2,997,107	4,220,900	6,487,580	2,705,650	3,781,930		291,457	438,970		216,180	337,625	30,116		17,317
80-84 years	4,734,182	1,764,311	2,969,871	4,308,395	1,609,889	2,698,506		154,422	271,365	326,973	112,476	214,497	18,396	,	11,022
85 years +	4,053,650	1,187,459	2,866,191	3,665,841	1,065,773	2,600,068	387,809	121,686	266,123	306,171	89,853	216,318	18,940	5,998	12,942

SOURCE: Published and unpublished data from the U.S. Bureau of the Census; see text.

Table 4-3. Estimated Total Population and Female Population Aged 15-44 Years: United States, Each Division and State, Puerto Rico, Virgin Islands, Guam, American Samoa, and the Northern Marianas: July 1, 1998 [Figures include Armed Forces stationed in each area and exclude those stationed outside the United States.]

		Female			Female
Area	Total	15-44 years	Area	Total	15-44 years
United States	270298524	60111557			
			South Atlantic		
Geographic divisions:			Delaware	743,603	172,819
			Maryland	5,134,808	1,196,880
New England	13,429,862	3,012,806	District of Columbia	523,124	126,426
Middle Atlantic	38,291,763	8,382,361	Virginia	6,791,345	1,597,037
East North Central	44,194,756	9,863,754	West Virginia	1,811,156	386,346
West North Central	18,694,626	4,088,137	North Carolina	7,546,493	1,677,166
South Atlantic	48,944,678	10,864,320	South Carolina	3,835,962	879,477
East South Central	16,471,211	3,718,882	Georgia	7,642,207	1,820,738
West South Central	30,013,597	6,755,599	Florida	14,915,980	3,007,431
Mountain	16,813,233	3,681,878			
Pacific	43,444,798	9,743,820	East South Central		
			Kentucky	3,936,499	882,559
New England			Tennessee	5,430,621	1,225,736
Maine	1,244,250	276,187	Alabama	4,351,999	981,633
New Hampshire	1,185,048	275,914	Mississippi	2,752,092	628,954
Vermont	590,883	133,989			
Massachusetts	6,147,132	1,392,583	West South Central		
Rhode Island	988,480	218,934	Arkansas	2,538,303	545,749
Connecticut	3,274,069	715,199	Louisiana	4,368,967	1,002,566
			Oklahoma	3,346,713	717,052
Middle Atlantic			Texas	19,759,614	4,490,232
New York	18,175,301	4,038,534			
New Jersey	8,115,011	1,781,092	Mountain		
Pennsylvania	12,001,451	2,562,735	Montana	880,453	182,845
			Idaho	1,228,684	268,122
East North Central			Wyoming	480,907	102,643
Ohio	11,209,493	2,497,235	Colorado	3,970,971	886,746
Indiana	5,899,195	1,324,439	New Mexico	1,736,931	378,533
Illinois	12,045,326	2,675,096	Arizona	4,668,631	1,000,352
Michigan	9,817,242	2,213,708	Utah	2,099,758	494,186
Wisconsin	5,223,500	1,153,276	Nevada	1,746,898	368,451
West North Central			Pacific		
Minnesota	4,725,419	1,054,458		5,689,263	1,279,008
Iowa	2,862,447	607,088	Oregon	3,281,974	699,329
Missouri	5,438,559	1,198,407	California	32,666,550	7,377,208
North Dakota	638,244	136,091	Alaska	614,010	135,809
South Dakota	738,171	158,153	Hawaii	1,193,001	252,466
Nebraska	1,662,719	361,056		1,183,001	202,400
Kansas	2,629,067	572,884			
Nalisas	2,029,007	312,084	Puerto Rico	3,857,070	904,668
			Virgin Islands	118,382	29,315
			Guam	149,101	29,315 31,057
			American Samoa	62,093	13,547
			Northern Marianas	66,611	22,483

Source: Published and unpublished data from the Bureau of the Census; see text.

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Births: Final Data for 1998

by Stephanie J. Ventura, M.A.; Joyce A. Martin, M.P.H.; Sally C. Curtin, M.A.; T. J. Mathews, M.S.; and Melissa M. Park, B.S., Division of Vital Statistics

Abstract

Objectives—This report presents 1998 data on U.S. births according to a wide variety of characteristics. Data are presented for maternal demographic characteristics including age, live-birth order, race, Hispanic origin, marital status, and educational attainment; maternal lifestyle and health characteristics (medical risk factors, weight gain, and tobacco and alcohol use); medical care utilization by pregnant women (prenatal care, obstetric procedures, complications of labor and/or delivery, attendant at birth, and method of delivery); and infant health characteristics (period of gestation, birthweight, Apgar score, abnormal conditions, congenital anomalies, and multiple births). Also presented are birth and fertility rates by age, live-birth order, race, Hispanic origin, and marital status. Selected data by mother's State of residence are shown including teenage birth rates and total fertility rates, as well as data on month and day of birth, sex ratio, and age of father. Trends in fertility patterns and maternal and infant characteristics are described and interpreted.

Methods—Descriptive tabulations of data reported on the birth certificates of the 3.94 million births that occurred in 1998 are presented.

Results—Birth and fertility rates increased in 1998 by about 1 percent, the first increase since 1990. Birth rates for teenagers fell 2-5 percent. Rates for women in their twenties increased 1-2 percent each, whereas rates for women in their thirties rose 2-4 percent. All measures of childbearing by unmarried women increased in 1998; the number of births rose 3 percent, the birth rate increased about 1 percent while the percent of births that were to unmarried women rose to 32.8 percent. Smoking by pregnant women overall dropped again in 1998, but continued to increase among teenagers. Improvements in prenatal care utilization continued. The cesarean delivery rate increased for the second year after declining for 7 consecutive years. The proportion of multiple births continued to rise; higher order multiple births (e.g., triplets, quadruplets) rose by 13 percent in 1998, following a 14 percent rise from 1996 to 1997. Key measures of birth outcome—the percents of low birthweight and preterm births-increased. These changes are in large part the result of increases in multiple births.

Keywords: births • birth certificate • maternal and infant health • birth rates • maternal characteristics

Highlights

Births in the United States increased 2 percent in 1998, to 3,941,553, the first increase since 1990. The **birth rate** rose slightly in 1998 to 14.6 births per 1,000 total population. The **fertility rate**, which relates births to the number of women of childbearing age, increased 1 percent to 65.6 births per 1,000 women aged 15–44 years.

Fertility rates for women in racial and Hispanic origin subgroups increased 1–5 percent for non-Hispanic white, non-Hispanic black, American Indian, and Puerto Rican women. Rates declined for Asian or Pacific Islander, Mexican, and Cuban women. The variation in rates found for recent years continued in 1998: rates were highest for Mexican women, followed by Puerto Rican, non-Hispanic black, and American Indian women. Rates were much lower for Asian or Pacific Islander, non-Hispanic white, and Cuban women.

The birth rate for teenagers declined again in 1998, falling 2 percent to 51.1 births per 1,000 women aged 15–19 years. The rate has declined 18 percent since 1991 (62.1). The birth rate for young teenagers 15–17 years fell 5 percent from 1997 to 1998 to 30.4 per 1,000, a record low. The rate for older teenagers 18–19 years declined

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2 percent to 82.0. From 1991 to 1998, the rate for young teenagers dropped 21 percent, while the rate for older teenagers declined 13 percent. The declines in birth rates have been steepest for non-Hispanic black teenagers; rates fell by 20 to 32 percent. The teenage pregnancy rate declined 15 percent from 1991 (116.5) to 1996 (98.7), reflecting concurrent declines in birth and abortion rates.

The birth rate for women in their early twenties increased in 1998, rising to 111.2 per 1,000 women aged 20-24 years. The rate for women aged 25-29 years increased 2 percent to 115.9 per 1,000 women. Women in their twenties have the highest birth rates; therefore, their rates are critical to determining overall childbearing patterns.

Birth rates for women in their thirties increased to 87.4 per 1,000 women aged 30-34 years, up 2 percent, and to 37.4 per 1,000 women aged 35–39 years, up 4 percent. The rates for these age groups are at their highest in at least three decades. The birth rate for women aged 40-44 years increased again in 1998 to 7.3 per 1,000.

The first birth rate declined again in 1998, to 26.4 first births per 1,000 women aged 15–44 years, a record low. The median age at first birth increased to 24.3 years; the median has risen slowly but steadily since 1972 (22.0).

The birth rate for unmarried women increased 1 percent in 1998 to 44.3 births per 1,000 unmarried women aged 15-44 years. The number of births to unmarried women rose 3 percent to 1,293,567, the highest number ever reported. Most of the increase was linked to the rise in the number of unmarried women in the childbearing ages. The percent of all births that were to unmarried women increased to 32.8 percent in 1998, compared with 32.4 percent in 1997.

Cigarette smoking during pregnancy declined again in 1998, to 12.9 percent. The overall rate has fallen steadily since 1989. However tobacco use by pregnant teenagers continued to increase in 1998. Sizeable increases were reported for non-Hispanic black teenagers. Overall smoking rates remain lowest for non-Hispanic black, Hispanic, and Asian or Pacific Islander women. Infant birthweight is seriously compromised by maternal smoking: In 1998, 12.0 percent of births to smokers compared with 7.2 percent of births to nonsmokers weighed less than 2,500 grams (5 lb 8 oz).

The proportion of women beginning prenatal care in the first trimester of pregnancy rose slightly to 82.8 percent for 1998, the ninth consecutive year of increase. After showing little change in the 1980's, the percent of women with timely care has risen 10 percent during the 1990's. Gains in first trimester care for 1997–98 were found for all race and ethnic groups except non-Hispanic white mothers. The overall proportion of late or no care was unchanged at 3.9 percent, but is down from a high of 6.4 percent in 1989. Over the decade, the largest gains in timely care have occurred among groups with the least favorable levels of care: Hispanic, non-Hispanic black, American Indian, and Hawaiian women.

Data on method of delivery show that the rate of cesarean delivery increased 2 percent between 1997 and 1998 (from 20.8 to 21.2 percent). This was the second consecutive increase in the cesarean rate after declining each year between 1989 and 1996. Despite the recent increase, the cesarean rate in 1998 was still 7 percent lower than in 1989 (22.8 percent). The primary cesarean rate in 1998 (14.9 per 100 live births to women who had no previous cesarean) was 2 percent higher than in 1997 (14.6). This was the first time this rate increased during the 1989-98 period. The rate of vaginal birth following a previous cesarean delivery (VBAC) declined 4 percent

between 1997 and 1998 (from 27.4 to 26.3 per 100 births to women who had a previous cesarean). Between 1996 and 1998 the VBAC rate fell 7 percent after increasing 50 percent between 1989 (18.9) and 1996 (28.3). The rate of induction of labor has risen every year since 1989, rising from 9 percent to 19 percent, or nearly one in five births in 1998.

Multiple births continued to climb in 1998; the number of twin births jumped 6 percent to 110,670, the largest single year increase in several decades. The number of triplets and other higher order multiple births climbed 13 percent to 7,625. Since 1980, the twin birth rate has risen 49 percent (from 18.9 to 28.1 per 1,000 live births), and the triplet and other higher order multiple birth rate has risen 423 percent (from 37.0 to 193.5 per 100,000). In 1998 one in every six infants born to women 45-49 years of age, and one in every three births to women 50-54 years of age was born in a multiple delivery.

The rate of preterm birth (less than 37 competed weeks of gestation) increased again for 1998 to 11.6 percent, from 11.4 percent for 1997. The percent of births born preterm has risen 9 percent since 1990 (10.6 percent), and 23 percent since 1981 (from 9.4 percent). Most of the current year rise was among births born moderately preterm, or at between 32 and 36 weeks of gestation. For 1997-98, the preterm birth rate increased among non-Hispanic whites (9.9 to 10.2 percent) and Hispanics (from 11.2 to 11.4), and was unchanged among non-Hispanic blacks (17.6 percent). The upswing in preterm births of recent years has been influenced in part by increases in multiple births, which are more likely to be born at shorter gestational ages than singleton births; the preterm rate has risen slightly for singleton births.

The overall rate of **low birthweight** (LBW) (less than 2,500 grams) rose from 7.5 to 7.6 percent for 1997-98. The percent LBW has increased 9 percent for the 1990's. All of the current year rise, and much of the rise since 1990, is the result of increases in the multiple birth rate (multiple births are at much greater risk of LBW than singletons); LBW among singleton births declined slightly for 1997-98, from 6.08 to 6.05 percent. Singleton LBW was down slightly for the current year among each of the three largest racial and ethnic groups: non-Hispanic white, non-Hispanic black, and Hispanic.

Introduction

This report presents detailed data on numbers and characteristics of births in 1998, birth and fertility rates, maternal lifestyle and health characteristics, medical services utilization by pregnant women, and infant health characteristics. These data provide important information on fertility patterns among American women by such characteristics as age, live-birth order, race, Hispanic origin, marital status, and educational attainment. Up-to-date information on these fertility patterns is critical to understanding population growth and change in this country and in individual States. Data on maternal characteristics such as weight gain, tobacco and alcohol use, and medical risk factors are useful in accounting for differences in birth outcomes. Information on use of prenatal care, obstetric procedures, complications of labor and/or delivery, attendant at birth and place of delivery, and method of delivery by maternal demographic characteristics can also help to explain differences in birth outcomes. It is very important that data on birth outcomes, especially levels of plurality, low birthweight, and preterm birth, be continuously monitored because these variables are important predictors of infant mortality and morbidity.

A report of preliminary birth statistics for 1998 presented data on selected topics based on a substantial sample (more than 99 percent) of the 1998 birth file (1). The selected measures included birth rates by age, race, and Hispanic origin of mother, and by live-birth order, and births by marital status, prenatal care, cesarean delivery, and low birthweight. Findings for these selected measures based on the preliminary data are essentially identical to those presented here based on final data.

In addition to the tabulations included in this report, more detailed analysis is possible by using the natality public-use data tape, which is issued for each year. Birth data have also been available in CD-ROM format since 1990, and a selection of tables of detailed data are available on the NCHS Internet site at http://www.cdc.gov/nchs/births.htm (2).

Methods

Data shown in this report are based on 100 percent of the birth certificates registered in all States and the District of Columbia. More than 99 percent of births occurring in this country are registered (3). Tables that show data by State also provide separate information for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas (Northern Marianas). However, these areas are not included in totals for the United States. Data for the Northern Marianas were available for the first time in 1998.

In this report, tabulations of births beginning with 1980 data are by race of mother; for years prior to 1980, tabulations are by race of child. Details of the differences in tabulation procedure are described in the Technical notes. Text references to black births and black mothers or white births and white mothers are used interchangeably.

Race and Hispanic origin are reported independently on the birth certificate. In tabulations of birth data by race and Hispanic origin, data for Hispanic persons are not further classified by race because the vast majority of women of Hispanic origin are reported as white. Most tables in this report show data for these categories: white, total; white, non-Hispanic; black, total; black, non-Hispanic; and Hispanic. Except when presenting birth rates, data for Hispanic subgroups are presented for the following five groups: Mexican, Puerto Rican, Cuban, Central and South American, and other and unknown Hispanic. When reporting birth rates for Hispanic subgroups, births to Central and South American women are added to births to other and unknown Hispanic women because detailed population data for Central and South American women are not separately available. Data are shown for five Asian or Pacific Islander (API) subgroups: Chinese, Japanese, Hawaiian, Filipino, and "other" API. In addition, nine States report data on API subgroups included in the "other API" category (Vietnamese, Asian Indian, Korean, Samoan, Guamanian, and remaining API); see Tech-

U.S. and State-level birth and fertility rates in this report were computed on the basis of population denominators provided by the U.S. Bureau of the Census. Rates by State shown in this report may differ from rates computed on the basis of other population estimates. Additional information on the measurement of marital status, gestational age, and birthweight; the computation of derived statistics and rates; population denominators; random variation and relative standard error; and the definitions of terms are presented in the Technical notes.

Information on births by age, race, or marital status of mother is imputed if it is not reported on the birth certificate. These items were

not reported for less than 1 percent of U.S. births in 1998. (See Technical notes for additional information.) All other maternal and infant characteristics (except items on which length of gestation is calculated) are not imputed; see Technical notes. Births for which a particular characteristic is unknown are subtracted from the figures for total births that are used as denominators before percents, percent distributions, and medians are computed. Thus, for example, the proportion of women receiving care in the first trimester of pregnancy is computed on the basis of births for which the month of pregnancy prenatal care began was reported. Levels of nonreporting vary substantially by specific item and by State. Table I in the Technical notes provides information on the percent of records with missing information for each item by State for 1998. Readers should note that the levels of incomplete reporting for some of the medical items are quite high in some States. Data for Connecticut, Hawaii, and Oklahoma, as well as the Northern Marianas, are of particular concern.

Demographic characteristics

Births and birth rates

Number of births

The number of births in the United States increased 2 percent in 1998, to 3,941,553, compared with 3,880,894 in 1997. This is the first increase in the number of births since 1990. Between 1990, the most recent high point in U.S. births, and 1997, the number of births fell 7 percent (see tables 1–12 for national and State birth data by age, live-birth order, race, and Hispanic origin).

The number of births for nearly all race and Hispanic origin groups increased in 1998 (tables 1 and 6). Increases of up to 2 percent were reported for non-Hispanic white and non-Hispanic black births. Births increased 3 to 4 percent for American Indian, Mexican, Puerto Rican, and Cuban women. Hawaiian births increased 6 percent. Declines of 1 percent were reported for births to Chinese and Filipino women (data for 1998 are shown in table 13).

Crude birth rate

The crude birth rate increased from 14.5 live births per 1,000 total population in 1997 to 14.6 in 1998. The increase in 1998 was the first since 1990 (16.7). Between 1990 and 1997, the rate fell 13 percent.

Fertility rate

The fertility rate, which relates births to the number of women in the childbearing ages, was 65.6 live births per 1,000 women aged 15–44 years in 1998, 1 percent higher than in 1997 (65.0). Like the number of births and the birth rate, the recent high point for the fertility rate was 1990 (70.9); between 1990 and 1997, the fertility rate dropped 8 percent (table 1 and figure 1).

Fertility rates by race and Hispanic origin increased 1 percent each for non-Hispanic white (57.7 per 1,000 women aged 15–44 years) and non-Hispanic black women (73.0), 2 percent for American Indian women (70.7), and 5 percent for Puerto Rican women (75.5). Rates fell 3 to 4 percent for Asian or Pacific Islander (API) (64.0) and Mexican women (112.1). The rate for Cuban women dropped from 57.4 to 50.1

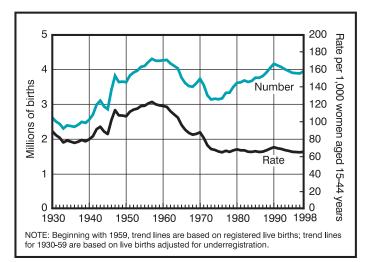


Figure 1. Live births and fertility rates: United States, 1930–98

per 1,000 (tables 1 and 6). Birth and fertility rates for specific API groups cannot be computed because the necessary populations are not available.

The modest increases in fertility rates for non-Hispanic white and black women account in large part for the 1-percent upturn in the overall fertility rate. It is possible that the 7-year downward trend in U.S. fertility has ended, at least temporarily. During the years 1990–97, the fertility rate for non-Hispanic white women declined 9 percent, and the rate for non-Hispanic black women fell 19 percent. The trends in fertility rates in the 1990's for Mexican, Puerto Rican, Cuban, and API women have not been consistent. The fertility rate for American Indian women has increased modestly for 2 consecutive years, marking a halt in the general downward trend in this rate during the 1990's.

The fertility rate for Hispanic women in 1998 was the lowest reported since 1989 when data accounting for virtually all Hispanic births in the United States first became available. The fertility rate for Mexican women in 1998 is also at its lowest since 1989, 8 percent below the peak recorded in 1991 (121.6). Trends in fertility for Hispanic women by subgroup for 1989–95 are presented in more detail in a recent report (4).

Age of mother

Teenagers—The birth rate for the youngest teenagers was 1.0 births per 1,000 females 10–14 years in 1998, a record low for this age group (table 4). This rate has declined steadily since 1994 (the rate was 1.4 in each year 1989 through 1994). The number of births to 10–14-year-olds fell 7 percent from 1997 to 1998, to 9,462, the lowest total reported in more than three decades (8,593 in 1967). The decline in the number of births to very young teenagers occurred solely as a result of the reduction in the birth rate; the number of female teenagers has increased steadily in the 1990's (5).

The **birth rate for teenagers 15–19 years** fell 2 percent to 51.1 per 1,000. This rate was 18 percent lower than the recent peak reported in 1991 (62.1) (**table A**). The declines in the 1990's in the teenage birth rate almost fully reverse the 24-percent increase that occurred from 1986 (50.2 per 1,000) to 1991. State-specific birth rates for teenagers are discussed in the section "Births and birth rates by State."

Table A. Birth rates for teenagers 15–19 by age, race, and Hispanic origin of mother: United States, 1991, 1997, and 1998, and percent change, 1991–98

[Rates per 1,000 women in specified group]

	Non-Hispanic			
Year and age	Total ¹	White	Black	Hispanic
15–19 years				
1998	51.1 52.3 62.1	35.2 36.0 43.4	88.2 90.8 118.9	93.6 97.4 106.7
Percent decline 1991–98	-18	-19	-26	-12
1997–98	-2	-2	-3	-4
15-17 years				
1998	30.4 32.1 38.7	18.4 19.4 23.6	58.8 62.6 86.7	62.3 66.3 70.6
Percent decline 1991–98	-21	-22	-32	-12
1997–98	-5	-5	-6	-6
18–19 years 1998	82.0 83.6	60.6 61.9	130.9 134.0	140.1 144.3
1991 ²	94.4	70.5	163.1	158.5
Percent decline 1991–98	-13	-14	-20	-12
1997–98	-2	-2	-2	-3

¹Includes races other than white and black and origin not stated.

Birth rates for teenage subgroups 15–17 and 18–19 years also fell between 1997 and 1998. The rate for teenagers 15–17 years declined 5 percent to 30.4 per 1,000, a record low (3,6). This rate fell by 21 percent from 1991 (38.7) to 1998 (table 4 and figure 2). The number of births to teenagers 15–17 years fell 4 percent from 1997 to 1998 to 173,231, the fewest since 1987 (172,591).

The birth rate for older teenagers 18–19 years declined 2 percent, to 82.0 per 1,000. This rate fell 13 percent from 94.5 in 1992 (its recent high) to 1998. However, the number of births to older teenagers increased 3 percent between 1997 and 1998 to 311,664, the first increase since 1990. This increase is due entirely to the 5-percent rise in the number of female teenagers 18–19 years from 1997 to 1998. (5).

Teenage birth rates by race and Hispanic origin vary substantially (tables 3, 4, 8, and 9). Rates in 1998 were highest for Mexican, non-Hispanic black, Puerto Rican, and American Indian teenagers and lowest for non-Hispanic white, Cuban, and API teenagers, a pattern that has been observed since 1994. Between 1997 and 1998, teenage birth rates declined for all race and Hispanic origin groups except American Indian, Puerto Rican, and "other" Hispanic teenagers. The rate for Mexican teenagers fell 9 percent; declines for non-Hispanic white, non-Hispanic black, and API teenagers were 2 to 3 percent each. The rate for Puerto Rican teenagers rose 8 percent, while the rate for American Indian teenagers increased very slightly.

From 1991, when rates for teenagers generally were at a peak, to 1998, birth rates fell 19 and 26 percent for non-Hispanic white and

²See reference 4 for information on reporting areas in 1991.

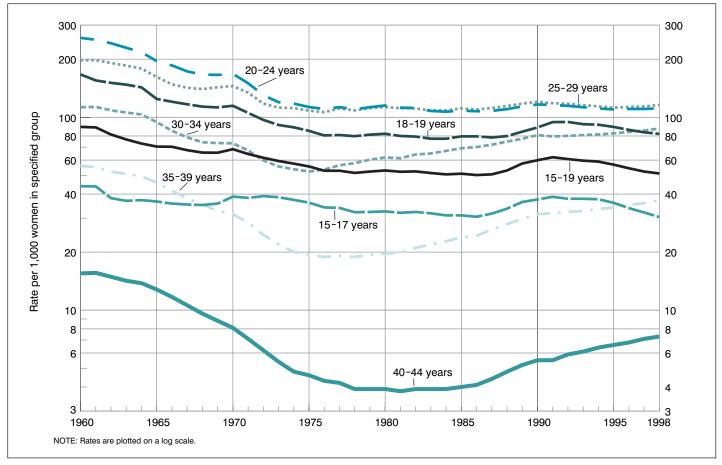


Figure 2. Birth rates by age of mother: United States, 1960-98

black teenagers, respectively. Despite the 8-percent increase in the rate for Puerto Rican teenagers, their rate in 1998 was still 26 percent lower than its recent peak in 1992 (110.4). The 1998 rates for American Indian and API teenagers were 15 to 16 percent lower, respectively, than in 1991. The rate for Mexican teenagers has declined by 12 percent just since 1995.

Teenage pregnancy rates (based on the sum of live births, induced abortions, and fetal losses) have also declined in recent years (6–8). The pregnancy rate for teenagers 15–19 years fell 15 percent from 116.5 per 1,000 in 1991 to 98.7 in 1996, reversing an 11-percent rise from 1986 to 1991 (7). (The most recent year for which *pregnancy* rates are available is 1996.) From 1990 to 1996, pregnancy rates declined 20 to 22 percent for non-Hispanic white (68.1 per 1,000 in 1996) and non-Hispanic black (177.8) teenagers. The rate for Hispanic teenagers declined 6 percent from 1994 to 1996 (157.1) (7). Further declines in the teenage pregnancy rate since 1996 are indicated by the steady decline in the teenage birth rate and declines in abortions among teenagers, according to preliminary data (9).

The factors accounting for the current downturn in teenage pregnancy and birth rates are discussed in recent reports (6,7). Briefly, the proportion of teenagers who are sexually experienced stabilized in the mid 1990's, reversing the steady increases over the past two decades (7,10). Many public and private initiatives have focused teenagers' attention on the importance of pregnancy prevention through abstinence (11). Moreover, teenagers are more likely to use contraceptives at first intercourse, especially condoms (12). Some sexually active teenagers

have switched to implant and injectable contraceptives, which are effective new birth control methods (13).

Women aged 20 years and over: Women in their twenties—The birth rate for women aged 20–24 years increased 1 percent in 1998 to 111.2 per 1,000, (tables 3, 4, 8, and 9). This rate had declined 5 percent during 1990–96, and was unchanged between 1996 and 1997. The birth rate for women aged 25–29 years rose 2 percent in 1998 to 115.9 per 1,000; this rate has increased by 3 percent over a 3-year period, following steady declines during 1990–95. Birth rates for women in their twenties, the principal childbearing ages, have been relatively stable over the past two decades (figure 2).

Birth rates for women in age groups 20–24 and 25–29 years were consistently highest for Mexican women. For example, the rate for Mexican women aged 20–24 years, 197.6 per 1,000, was nearly three times the rate for API women in this age group (68.8) and more than double the rate for Cuban women (85.6).

Women in their thirties—Birth rates for women in their thirties rose again in 1998. Rates for women in these age groups have generally increased steadily since the late 1970's, a pattern unlike any other age group (tables 4 and 9 and figure 2) (14). The rate for women aged 30–34 years increased 2 percent in 1998 to 87.4 per 1,000. This rate increased by 67 percent since its low point in 1975 (52.3), and the 1998 rate is higher than any year since 1965 (94.4). Most of this increase occurred by 1990. Despite the higher birth rate, the number of births to women aged 30–34 years increased only slightly in 1998 because the number of women in that age group declined 2 percent (5).

The birth rate for women in their mid- to late thirties increased 4 percent to 37.4 per 1,000 women aged 35–39 years. This rate has nearly doubled since 1978 (19.0); the 1998 rate is higher than in any year since 1967 (38.3). Although the pace of increase slowed in the 1990's through 1997, the 1998 rate was still 18 percent higher than the rate in 1990 (31.7). The number of births to women aged 35–39 reached a record high in 1998 (424,890), 4 percent more than in 1997, and one-third more than in 1990 (317,583). All of this increase resulted from the increase in the birth rate; the number of women aged 35–39 years was essentially unchanged in 1998 (5). Among women in their thirties, birth rates were highest for API, Mexican, and "other" Hispanic women (tables 3 and 8).

Women in their forties—The birth rate for women aged 40–44 years increased from 7.1 per 1,000 to 7.3 in 1998. This rate increased nearly a third from 1990 (5.5) to 1998. From 1981 to 1998, the rate increased by 92 percent; the 1998 rate is higher than in any year since 1970 (8.1). From 1997 to 1998, the number of births in this age group rose 6 percent to 81,027; the number has increased by two-thirds during the 1990's.

The **birth rate for women aged 45–49 years** remained unchanged at 0.4 births per 1,000 in 1998. Reflecting the continued increase in the number of women in this age group (who were born during 1949–53), the number of births to women aged 45–49 years rose 9 percent to 3,624, the highest number recorded in three decades (3,790 in 1968).

Births to women aged 50 years and over—Birth data for women aged 50–54 years are reported for the second consecutive year in this report. These data were not available during 1964–96; for that period, mother's age was edited for ages 10–49 years (3). Additional information on the editing procedures is presented in the Technical notes. Because of the recent advances in fertility-enhancing therapies, an increasing number of women are giving birth at age 50 years and over. In 1998, 158 births were reported to women aged 50–54 years (tables 2 and 7); 54 of these births were part of a multiple delivery (see section below on "Multiple births"). This number is too small for computing a reliable age-specific birth rate. Therefore, in computing birth rates by age of mother, births to women aged 50–54 years have been included with births to women aged 45–49 years; the denominator for the rate is women aged 45–49 years.

Birth rates for women in their mid to late thirties and over increased somewhat more during 1997–98 than earlier in the 1990's when the pace of increase slowed (table 4). Contributing to the renewed rise may be several factors, including increasing birth expectations among childless women as the availability and use of fertility-enhancing therapies has increased (15). Among currently childless women aged 35–44 years reporting impaired fecundity according to the National Survey of Family Growth, the proportion seeking fertility drug treatment rose considerably from 1982 to 1995 (12,16).

Live-birth order

The first birth rate dropped slightly in 1998 to 26.4 first births per 1,000 women aged 15–44 years (table 5). This is a record low. The 1998 rate was 9 percent lower than in 1990 (29.0), its recent high point. The rates for second, third, and fourth births increased. Birth rates for higher birth orders were unchanged.

While the first birth rate declined less than 1 percent overall, there were substantial differences in the trends by age of mother (table 3;

tabular data not shown for 1997 and earlier years). Rates declined for teenage subgroups 15–17 and 18–19 years by 5 and 2 percent, respectively. Rates for women in their twenties declined up to 1 percent. In contrast, first birth rates rose 3 to 4 percent for women in their thirties. The proportion of all first births occurring to women aged 30 years and over remained unchanged in 1998 at 23 percent; in 1975 it was just 5 percent (14).

Another measure that can be useful in interpreting age trends in childbearing is the **median age at first birth**. This measure has gradually increased since the mid-1970's as the tendency for women to postpone childbearing was underway. The median age at first birth was 24.3 years in 1998, compared with 23.8 in 1990 and 22.0 in 1972.

The **birth rate for second births to teenagers** who have had a first birth increased again slightly in 1998 compared with 1997, after falling 21 percent from 1991 to 1996 (6). All of the decline in teenage birth rates in 1998 was thus due to declines in first birth rates.

Total fertility rate

The total fertility rate (TFR) indicates the number of births that a hypothetical group of 1,000 women would have if they experienced throughout their childbearing years the age-specific birth rates observed in a given year. This measure shows the potential impact of current fertility patterns on completed family size. Because it is computed from age-specific birth rates, the TFR is age-adjusted; it is not affected by changes over time in age composition.

The TFR in 1998 was 2,058.5, 1 percent higher than in 1997 (tables 4 and 9). The TFR has increased slightly from 1995—by 2 percent overall—following a 3-percent decline from 1990 to 1995. The increase in the TFR in 1998 resulted from the rise in age-specific birth rates for all women in age groups 20–44 years, which more than compensated for the declines in the teenage birth rates.

The U.S. TFR remains below "replacement" level (2,100), the rate at which a given generation can exactly replace itself. The TFR has been below "replacement" since 1971 (2,266.5). TFR's vary substantially among racial and Hispanic origin groups. In 1998, as in recent years, the TFR was above "replacement" for Mexican, non-Hispanic black, and Puerto Rican women. Rates were below "replacement" for American Indian, API, Cuban, and non-Hispanic white women (tables 4, 9, 13, and 14). Increases and decreases between 1997 and 1998 in most TFR's were 2 percent or less; rates declined 3 percent for Mexican and API women and increased 5 percent for Puerto Rican women. Statespecific total fertility rates for 1998 are discussed in the next section.

Births and birth rates by State

Birth data by race and by Hispanic origin for 1998 are shown in tables 10–12 for the 50 States and the District of Columbia, and Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas. Note that the American Indian, Asian or Pacific Islander (API) and Hispanic populations (and Hispanic subgroups) are highly concentrated geographically.

The **number of births** increased in 43 States and Guam and American Samoa, and declined in 7 States, the District of Columbia, Puerto Rico, and the Virgin Islands. Increases and declines of up to 3 percent were found in 42 of the States, the District of Columbia, Guam, and American Samoa. The number increased 4 to 7 percent in

Colorado, Georgia, Idaho, Nevada, North Carolina, Tennessee, and Utah, and declined 5 to 11 percent in North Dakota, Puerto Rico, and the Virgin Islands.

Crude birth rates by State ranged from 11 births per 1,000 total population (Maine and Vermont) to 22 per 1,000 (Utah) (table 10). Birth rates increased in 32 States and American Samoa, declined in 6 States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam, and were unchanged in 12 States. Changes were no more than 2 percent in most States, and were not significant in 34 of the States and the District of Columbia or in Guam and American Samoa. A statistically significant decline of 5 percent was recorded for North Dakota.

Fertility rates per 1,000 women aged 15–44 years ranged by State from a low of 49 (Vermont) to a high of 91 (Utah) (table 10). Rates increased in 42 States, Guam, and American Samoa, and declined in 7 States, the District of Columbia, Puerto Rico, and the Virgin Islands; the rate was unchanged in New York. Changes in most States were no more than 2 percent and were not statistically significant in 23 States, the District of Columbia, Guam, and American Samoa. A significant increase of 5 percent was reported for Colorado, whereas a 4-percent decline was found for North Dakota; the rate for American Samoa fell 24 percent.

State-specific **total fertility rates** for 1998 are shown in **table 10**. These rates provide a summary measure of lifetime fertility at the State level; rates for 1980, 1990, and 1996–97 have been published (17–20).

Rates by State for 1998 vary substantially, from a low of 1,569.5 (or 1.57 births per woman) for Vermont to a high of 2,712.0 (2.71 births per woman) for Utah. Differences in the total fertility rates and changes between 1997 and 1998 by State are quite similar to those in the general fertility rate.

Birth rates for teenagers

Birth rates for teenagers by age group and State are shown for 1998 in **table 10**. Rates per 1,000 women aged 15–19 years ranged by State from 24.4 (Vermont) to 73.0 (Mississippi). The highest rate was reported for Guam, 104.8. Birth rates for teenagers have been declining in the United States since 1991. Teenage birth rates were lower in 1998 than in 1997 in all but 9 States. However, the overall trend for the 1990's was downward: Rates for 1998 were lower than for 1991 in all States and the District of Columbia and the Virgin Islands; declines were statistically significant in all States and in the territories except for Puerto Rico and Guam which increased (**table B**). Declines exceeded 25.0 percent in 5 States, and exceeded 20.0 percent in 13 States, the District of Columbia, and the Virgin Islands. More detailed information on current trends and variations in State-specific teenage birth rates by age, race, and Hispanic origin is presented in recent reports (6,21).

Table B. Birth rates for teenagers aged 15–19 years by State, 1991 and 1998, and percent change, 1991–98: United States, each State and territory

[Birth rates per 1,000 estimated female population aged 15-19 years in each area]

State	1991	1998	Percent change, 1991–98	State	1991	1998	Percent change, 1991–98
United States ¹	62.1	51.1	-17.7	Nebraska	42.4	37.0	-12.7
				Nevada	75.3	65.7	-12.7
Alabama	73.9	65.5	-11.4	New Hampshire	33.3	27.1	-18.6
ılaska	65.4	42.4	-35.2	New Jersey	41.6	34.6	-16.8
ırizona	80.7	70.5	-12.6	New Mexico	79.8	69.0	-13.5
ırkansas	79.8	70.8	-11.3	New York	46.0	38.5	-16.3
alifornia	74.7	53.5	-28.4	North Carolina	70.5	61.0	-13.5
olorado	58.2	48.7	-16.3	North Dakota	35.6	30.4	-14.6
onnecticut	40.4	35.8	-11.4	Ohio	60.5	48.1	-20.5
elaware	61.1	53.9	-11.8	Oklahoma	72.1	61.6	-14.6
istrict of Columbia	114.4	86.7	-24.2	Oregon	54.9	47.4	-13.7
orida	68.8	55.5	-19.3	Pennsylvania	46.9	36.9	-21.3
ieorgia	76.3	65.4	-14.3	Rhode Island	45.4	41.0	-9.7
awaii	58.7	45.7	-22.1	South Carolina	72.9	60.4	-17.1
laho	53.9	44.8	-16.9	South Dakota	47.5	38.5	-18.9
inois	64.8	53.2	-17.9	Tennessee	75.2	64.3	-14.5
ndiana	60.5	53.3	-11.9	Texas	78.9	70.9	-10.1
wa	42.6	35.2	-17.4	Utah	48.2	40.9	-15.1
ansas	55.4	47.0	-15.2	Vermont	39.2	24.4	-37.8
entucky	68.9	57.0	-17.3	Virginia	53.5	43.5	-18.7
ouisiana	76.1	65.4	-14.1	Washington	53.7	41.7	-22.3
laine	43.5	30.4	-30.1	West Virginia	57.8	49.2	-14.9
laryland	54.3	43.1	-20.6	Wisconsin	43.7	34.8	-20.4
lassachusetts	37.8	30.8	-18.5	Wyoming	54.2	47.8	-11.8
lichigan	59.0	42.6	-27.8				
innesota	37.3	30.6	-18.0	Puerto Rico	72.4	74.3	2.6*
lississippi	85.6	73.0	-14.7	Virgin Islands	77.9	62.0	-20.4
lissouri	64.5	51.2	-20.6	Guam	95.7	104.8	9.5*
Montana	46.7	37.1	-20.6	American Samoa		43.9	
				Northern Marianas		65.5	

^{**} Not significant at p < .05.

^{- - -} Data not available.

¹Excludes data for the territories.

Sex ratio

There were 2,016,205 male live births in 1998 compared with 1,925,348 female live births. These numbers yielded a sex ratio of 1,047 male per 1,000 female live births (tables 13 and 14). The sex ratio has changed very little over the last 50 years and was 1,048 in 1997. Similar to previous years, Asian or Pacific Islander mothers had the highest sex ratio (1,061). The sex ratio for Hispanic mothers (1,040) was intermediate between non-Hispanic white mothers (1,052) and non-Hispanic black mothers (1,034). The ratio for American Indian births was 1,038.

Month of birth

Monthly birth rates in 9 months of 1998 were above the rates for the same months observed in 1997. The peak months of occurrence of births in 1998 were July, August, and September (table 15). If the birth and fertility rates are adjusted to account for the characteristic seasonal variation, it is then possible to observe the underlying trends in these rates. The months of January, May, and July had the lowest seasonally adjusted birth rates since 1976. The seasonally adjusted birth rate for 7 months was higher in 1998 than for the same months in 1997.

Day of the week

The average number of births on any given day in 1998 was 10,799 (table 16). There is a large variation in the number of births by day of the week. For Tuesdays, the most common day to have a birth, the average was 12,393 while for Sundays, the least common day, the average was 7,829.

Variation in the daily pattern of births can also be measured by an index of occurrence. In 1998 the Sunday index was 72.5, an indication that there were 27.5 percent fewer births on Sundays than the daily average, considered to be 100.0. The Saturday index was 80.8. As in past years, Tuesdays had the highest index in 1998, 114.8.

A weekend deficit is apparent for vaginal and cesarean deliveries, but is far larger for cesarean deliveries, particularly repeat cesareans. In 1998 the Sunday index for vaginal births was 77.6, compared with 63.4 for primary cesareans and 37.9 for repeat cesareans.

Births to unmarried women

The birth rate for unmarried women in 1998 was 44.3 births per 1,000 unmarried women aged 15-44 years, 1 percent higher than in 1997 (44.0), but still 6 percent below its highest level, 46.9 in 1994. The **number of births to unmarried women** increased 3 percent to 1,293,567 in 1998, the highest number ever reported. Most of this 3-percent increase is due to the 2-percent growth in the population of unmarried women. The percent of all births occurring to unmarried women rose from 32.4 to 32.8 percent in 1998. (See table C and tables 17,18.)

The procedures for reporting the mother's marital status changed only in Connecticut, beginning June 15, 1998. Connecticut now reports the mother's marital status from a direct question, and the question is on the State's birth certificate. The reporting change in Connecticut, which accounts for just 1 percent of U.S. births, is discussed in more detail in the Technical notes. Prior to June 1998, the mother's marital status was inferred in Connecticut by comparing the

Table C. Number, rate, and percent of births to unmarried women, and birth rate for married women: United States, 1980 and 1985-98

	Births to	Birth rate for		
Year	Number	Rate ¹	Percent ²	married women ³
1998	1,293,567	44.3	32.8	85.7
1997	1,257,444	44.0	32.4	84.3
1996	1,260,306	44.8	32.4	83.7
1995	1,253,976	45.1	32.2	83.7
1994	1,289,592	46.9	32.6	83.8
1993	1,240,172	45.3	31.0	86.8
1992	1,224,876	45.2	30.1	89.0
1991	1,213,769	45.2	29.5	89.9
1990	1,165,384	43.8	28.0	93.2
1989	1,094,169	41.6	27.1	91.9
1988	1,005,299	38.5	25.7	90.8
1987	933,013	36.0	24.5	90.0
1986	878,477	34.2	23.4	90.7
1985	828,174	32.8	22.0	93.3
1980	665,747	29.4	18.4	97.0

¹Births to unmarried women per 1,000 unmarried women aged 15-44 years.

surnames of the mother, father, and child. Reporting procedures for marital status in Connecticut are now essentially the same as those in all but two States (Michigan and New York); see Technical notes.

If the reporting change in Connecticut had not occurred, it is estimated that the number of nonmarital births would have been about 1,000 higher. The birth rate and the percent of births to unmarried women for the Nation, however, were not affected by the change in Connecticut. It is important to note that as a result of the change implemented by Connecticut, its birth data by marital status are more accurate in 1998 than in prior years.

Birth rates for unmarried women vary considerably by race and Hispanic origin. In 1998 the rates per 1,000 unmarried women were 27.4 per 1,000 for non-Hispanic white women, 73.3 for black women, and 90.1 for Hispanic women. The only rate to increase was for non-Hispanic white women, up 1 percent. The birth rate for unmarried black women has declined 19 percent since 1989 (90.7); the 1998 rate is lower than in any year since 1969 when data for black women became available. The birth rate for unmarried Hispanic women in 1998, 90.1 per 1,000, was at its lowest level since 1990 (89.6)

Birth rates for unmarried women by age continue to be highest for women aged 18-19 and 20-24 years, followed closely by women aged 25-29 years (figure 3). Rates for younger teenagers and women in age groups 30 years and over are considerably lower (tables 17 and 18). Among teenagers and women aged 20–24 years, rates for unmarried black and Hispanic women on average were 2 to 4 times the rates for non-Hispanic white women in the same age groups. Among age groups 25-29 years and over, rates were considerably higher for Hispanic women than for black or non-Hispanic white women.

Age-specific birth rates for unmarried women declined only for teenagers in 1998, continuing a trend underway since 1994. During the 1994–98 period, the rates for unmarried teenagers 15–17 and 18–19 years declined 16 and 8 percent, respectively. The rate for young black teenagers has been falling since 1991, and dropped steeply, by 30 percent, during 1991-98.

Birth rates for unmarried women in age groups 20–24 and 25–29 years increased by 2 and 4 percent, respectively, between 1997 and

²Percent of all births to unmarried women.

³Births to married women per 1,000 married women aged 15-44 years.

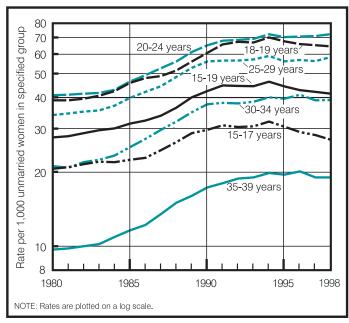


Figure 3. Birth rates for unmarried women, by age of mother: United States, 1980–98

1998, reaching record highs in 1998. Birth rates for unmarried women in age groups 30–34 through 40–44 years were essentially unchanged in 1998. These patterns by age were generally found for all population groups; among women 30 years and over, increases were found only for non-Hispanic white women.

The proportion of all births occurring to unmarried women increased to 32.8 percent in 1998, compared with 32.4 percent in 1997. The proportions for subgroups in 1998 were 21.9 percent, non-Hispanic white; 69.3 percent, non-Hispanic black; and 41.6 percent, Hispanic; each changed very little in recent years (see tables 13, 14, 17, and 19 for 1998 data).

Changes in the proportion of births to unmarried women are affected by trends in births and birth rates for married as well as unmarried women (table C). Because of compensating changes in these measures and in the populations of women by marital status, the proportion of births to unmarried women has changed relatively little since 1994. The birth rate for unmarried women has generally declined, but increased 1 percent from 1997 to 1998. The number of nonmarital births fluctuated during 1994–98, with a small overall increase, reflecting the 6-percent rise in the number of unmarried women during that period (22). In 1998 total births—mostly births to married women—increased for the first time since 1990. However, the increases in the number of unmarried women and their birth rate were larger than the increases in marital fertility. Thus, the proportion of births to unmarried women rose in 1998. Trends in the factors affecting the number and proportion of births to unmarried women should be kept in mind when examining trends in these measures (23).

The numbers and proportions of births to unmarried women by State and by race and Hispanic origin for 1998 are shown in table 19 for the 50 States and the District of Columbia, and each territory. The numbers increased in 46 States, Guam, and American Samoa, and declined in four States (California, Connecticut, New York, and North Dakota), the District of Columbia, Puerto Rico, and the Virgin Islands. Similarly, increases in the proportions exceeded declines: The

proportion increased in 44 States, Puerto Rico, the Virgin Islands, and Guam, declined in three States, the District of Columbia, and American Samoa, and was unchanged in three States.

Age of father

The **birth rate per 1,000 men aged 15–54 years** reversed a 7 year decline in 1998, rising 1 percent to 51.0 (**table 20**). This rate fell by 14 percent between 1990 and 1997. Birth rates increased for men in age groups 20–24 through 45–49 years, and declined for teenagers. Information on age of father is often missing on birth certificates of children born to unmarried women, greatly inflating the number of "not stated" in all tabulations by age of father. In 1990 age of father was not reported for 16 percent of births; by 1998 this figure had declined to 14 percent of births. The procedures for computing birth rates by age of father are described in the Technical notes.

Educational attainment

The educational attainment of women who give birth is important because higher educational attainment is associated with more timely receipt of prenatal care and fewer lifestyle and health behaviors during pregnancy that are detrimental to birth outcome (discussed in later sections).

Data from the birth certificate show that the educational attainment of women who gave birth increased substantially over the last few decades, partly reflecting the increases in educational attainment of all women during the time period (24). More than three-fourths of women who gave birth in 1998 had at least 12 years of schooling (78 percent), and 23 percent had at least 4 years of college (table 21). The percent of mothers with at least a high school diploma increased with additional age, to about 90 percent for women who gave birth in their 30's, and then declined slightly for mothers 40 years of age and over (88 percent). The percent of mothers with at least 4 years of college was highest for women 35 years of age and over (43 percent). The median educational attainment for all mothers in 1998 was 12.9 years.

In general, Japanese and Filipino mothers were the most likely to have completed high school—98 percent and 93 percent, respectively (tables 13 and 14). Eighty-seven percent of non-Hispanic white mothers compared with 73 percent of non-Hispanic black mothers and 51 percent of Hispanic mothers had completed high school. Although the overall proportion of Hispanic mothers with at least 12 years of schooling was low, there was tremendous variation among Hispanic subgroups, ranging from 45 percent of Mexican mothers to 87 percent of Cuban mothers (table 14). Only two-thirds of American Indian mothers had 12 or more years of schooling. Thirty percent of non-Hispanic white mothers had at least 4 years of college compared with 11 percent of non-Hispanic black mothers and 7 percent of Hispanic mothers.

Maternal lifestyle and health characteristics

Weight gain

Maternal weight gain is one of the components in the complex relationship between lifestyle characteristics of the mother and the development of the fetus (25). In 1990 the National Academy of Sciences published weight-gain guidelines that varied according to

mother's body mass index (BMI), which is calculated from her prepregnancy weight and height. The guidelines recommend that women who are underweight (low BMI) gain 28 to 40 pounds, those who are of normal weight (average BMI) gain 25 to 35 pounds, those who are overweight (high BMI), gain 15 to 25 pounds, and obese women, gain not more than 15 pounds (26).

Information on maternal weight gain is collected on the birth certificate, but information on the mother's prepregnancy weight and height is not. Therefore, it is not possible to determine whether the weight gain was within the recommendations for the mother's BMI. Differences between subgroups in maternal weight gain may reflect differences in the proportion of mothers who gained outside the recommended range but could also be the result of group differences in maternal height and prepregnancy weight.

In 1998 all States except California reported information on weight gain. Births to mothers residing in those States accounted for 87 percent of all births in the United States. In 1998 the majority of women (64 percent) gained 26 pounds or more during pregnancy (table 22). The median weight gain changed very little during the 1989–98 period and was 30.5 pounds in 1998. Despite the consistency of the median weight gain, the percent of mothers who gained at either end of the weight gain spectrum was higher in 1998 than in 1989—weight gains of less than 16 pounds increased from 9.4 percent in 1989 to 11.3 percent in 1998, while weight gains of 46 pounds or more increased from 9.1 percent in 1989 to 11.9 percent in 1998.

The weight gain of the mother during pregnancy varied considerably by period of gestation. Mothers who had preterm infants (gestations of under 37 completed weeks) gained 3 pounds less during pregnancy (27.9 pounds) than mothers who had babies with gestations of 40 weeks and over (30.9 pounds). The median weight gain for non-Hispanic white women (30.8 pounds) was about a pound higher than for either non-Hispanic black women (29.8 pounds) or Hispanic women (30.0 pounds).

The percent of non-Hispanic black mothers who had weight gains of less than 16 pounds (16.8 percent) was much higher than for Asian or Pacific Islander (API) and non-Hispanic white mothers (9.6 percent each) while American Indian mothers were intermediate (15.3 percent) (tables 24 and 25).

Within Hispanic subgroups, the percent of Mexican mothers who gained less than 16 pounds (14.7 percent) was nearly double that for Cuban mothers (7.8 percent) while the remaining groups were intermediate (table 25)

Maternal weight gain has been shown to have a positive correlation with the birthweight of the infant (27). This relationship is substantiated by the data in table 23. The percent of infants with low birthweight drops steadily with increasing weight gain through 45 pounds, from 14.2 to 5.1 percent, and then increases slightly for mothers who gained 46 pounds or more (5.4 percent). The general decline in the percent low birthweight with greater maternal weight gain is replicated when the data are examined according to the period of gestation.

Medical risk factors

Maternal medical risk factors have a major influence on pregnancy complications and infant survival (28-30). Some of the more serious conditions necessitate close medical supervision to prevent severe complications. Sixteen medical risk factors affecting pregnancy

are separately identified on the birth certificate. Data for this item were missing from only 1.4 percent of records for 1998, but birth certificate data may underreport overall medical risk factor prevalence (31). Also, rates for rarely occurring medical risk factors and for smaller population groups can vary widely from year to year and should be used with caution.

The most frequently reported medical risk factor is pregnancy**associated hypertension**. The rate for this factor rose for the seventh consecutive year, from 36.8 to 37.6 per 1,000 for 1997-98. This rate has risen by nearly a third during the 1990's. (See table 26 for 1998 data.) The pregnancy-associated hypertension rate has risen among all age and race and ethnic groups since the early 1990's. Rates for the related hypertensive disorders, chronic hypertension and eclampsia, were largely unchanged for 1998, at 7.1 and 3.2 per 1,000, respectively, and have not risen notably during the 1990's.

Diabetes and anemia are the second and third most frequently reported complications of pregnancy. The diabetes rate was 26.7 per 1,000 for 1998 compared with 26.4 in 1997. The anemia rate rose to 21.8 from 20.2 in 1997. Despite slight fluctuations in rates for these two conditions, rates have not risen markedly during the 1990's.

Overall, and for the majority of all racial and ethnic groups, the reported rate of hydramnios/oligohydramnios (the excess or shortage of amniotic fluid) has consistently increased each year since data for this factor first became available in 1989, and has more than doubled during the 1990's (from 5.9 to 13.2 per 1,000 between 1990 and 1998). Acute or chronic lung disease (e.g., asthma, tuberculosis) has exhibited an even more dramatic upward trend. Significant increases for 1990-98 were found for all racial and ethnic groups. Although lung disease is reported in only 1 percent of all pregnant women, the level of lung disease has more than tripled overall since 1990 (from 3.0 per 1,000 to 10.3 between 1990 and 1998).

Medical risk factors during pregnancy vary greatly by race and ethnicity (tables 27 and 28). American Indian women have consistently had the highest rates of pregnancy-associated hypertension, diabetes, and anemia, comprising about 5 percent of all American Indian pregnancies for each condition in 1998. In comparison, only about 1 percent of Chinese mothers had pregnancy-associated hypertension or anemia. Overall rates can sometimes mask striking differences in age-specific rates among racial and ethnic groups. For example, although the overall diabetes rate for white mothers was 25.9, higher than the black rate of 25.1, black mothers aged 40 years and over (77.7 per 1,000) have a rate 28 percent higher than white mothers 40 years and over (60.8 per 1,000).

Medical risk factor rates also often differ widely by maternal age (table 26). Anemia, for example, is more common among younger mothers (30.6 per 1,000 for mothers under 20 years of age compared with 17.6 for mothers 40 years of age and over). Older mothers, conversely, are more prone to chronic conditions such as diabetes (65.7 for mothers 40 years and over compared with 8.2 for mothers under 20 years of age). Some risk factors, however, such as pregnancyassociated hypertension follow a U-shaped pattern, with the highest levels at the extremes of the maternal age distribution.

Tobacco use during pregnancy

Smoking during pregnancy continued to decline according to birth certificate data. In 1998, 12.9 percent of women giving birth were reported to have smoked, down 2 percent compared with 1997 (13.2 percent) and 34 percent since 1989 (19.5 percent), when this information first became available on the birth certificate (20,32). Tobacco use was reported in a comparable manner on the birth certificate in 1998 by 46 States, the District of Columbia, and New York City, comprising 81 percent of U.S. births. Comparable information was not available for California, Indiana, South Dakota, and the remainder of New York State. (See tables 24, 25, and 29–32 for 1998 data.)

Some studies have suggested that smoking may be underreported on birth certificates due to a variety of factors, including the lack of a specific time reference for smoking status, variations in the source of this information for each birth, and the growing stigma associated with smoking (32–35). Nevertheless, trends in maternal smoking based on the birth certificate are generally consistent with those reported for recent years from the National Survey of Family Growth and more recently from the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance Summary, and variations in smoking among population subgroups found in birth certificate data have been corroborated in other studies (12,36–38).

Tobacco use during pregnancy is associated with a variety of adverse outcomes, including increased risk of miscarriage, intrauterine growth retardation, low birthweight, and infant mortality, as well as negative consequences for child health and development (39–42).

Maternal smoking declined or was unchanged in most racial and Hispanic origin groups; smoking rates increased for Japanese and Hawaiian women, the second year of increase for Hawaiians. As in previous years, rates were highest for non-Hispanic white, American Indian, and Hawaiian women, and lowest for Mexican, Cuban, Central and South American, and Asian or Pacific Islander women (API) (except Hawaiian) (tables 24 and 25). The generally very low smoking rates found for Mexican, Central and South American, Chinese, and Filipino women from birth certificate data have been confirmed by other studies (36,37). Women born in the 50 States and the District of Columbia had substantially higher smoking rates than women born outside these areas, a pattern that has been described elsewhere (tables 24 and 25) (43).

Maternal smoking among teenagers rose about 1 percent overall, the fourth consecutive year of increase, with all of the 1997–98 increase confined to older teenagers (up from 18.8 to 19.2 percent) (figure 4) (32). Smoking rates increased among non-Hispanic white and black teenagers 15–19 years in 1998; the rate for Hispanic teenagers was unchanged at 4.9 percent. The smoking rate for non-Hispanic black teenagers was 7.0 percent in 1998, compared with 5.0 percent in 1994 when the rate began to rise (see table 30 for 1998 data.) The rate for non-Hispanic white teenagers increased to 29.8 percent; their rates are still 4 to 5 times the rates for non-Hispanic black teenagers. Non-Hispanic white women aged 18–19 years had the highest smoking rate of any group, 30.4 percent (table 30). Smoking during pregnancy generally declined for women in age groups 20–39 years. Patterns of smoking rates and trends by age, race, and Hispanic origin are described in detail in a recent NCHS report (32).

Among smokers, the proportion smoking at least half a pack of cigarettes daily has declined steadily in recent years—to 31 percent in 1998 (compared with 41 percent in 1990) (32). Non-Hispanic white mothers and older mothers are more likely than other mothers to smoke half a pack or more (tables 29 and 31).

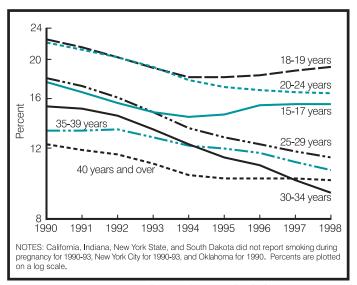


Figure 4. Percent of mothers who smoked during pregnancy by age: Total reporting areas, 1990–98

Smoking rates by maternal educational attainment continue to be highest for women with 9–11 years of education, 26 percent in 1998, and lowest for women with 4 years or more of college, 2 percent (table 31). Even among women aged 20 years and over, smoking rates were highest for mothers who attended but did not graduate from high school—29 percent overall and 48 percent of non-Hispanic white women (tabular data not shown).

Babies born to mothers who smoke during pregnancy are at greatly elevated risk of low birthweight (LBW), a finding documented in birth certificate data as well as in numerous other studies (39,44). In 1998, 12.0 percent of infants born to smokers weighed less than 2,500 grams (5 lb 8 oz) compared with 7.2 percent of births to nonsmokers (table 32). This substantial differential is found for every race and Hispanic origin group. Heavier smoking heightens the LBW risk, although LBW is elevated even among babies born to the lightest smokers (1 to 5 cigarettes daily), 11.0 percent (tabular data not shown). Advancing maternal age exacerbates the risk, probably a consequence of the much greater cigarette consumption among older women (table 29).

Alcohol use during pregnancy

Pregnancy and birth outcome can be jeopardized by maternal alcohol use during pregnancy. Even low to moderate alcohol use has been shown to jeopardize birth outcome, independent of other risk factors such as tobacco use and other maternal risk factors (45,46). All States except California and South Dakota included items on alcohol use on their birth certificates in 1998. This reporting area accounted for 87 percent of U.S. births.

Alcohol use during pregnancy is substantially underreported on the birth certificate (31). According to birth certificate data, alcohol use declined again in 1998 to just 1.1 percent of mothers reporting any alcohol use compared with 1.2 percent in 1997 and 4.1 percent in 1989, the first year this information was reported on the birth certificates (see tables 24 and 25 for 1998 data) (20). A recent study based on an analysis of responses by about 1,300 pregnant women in CDC's nationally representative Behavioral Risk Factor Surveillance System

found that about 15 percent of women used alcohol during pregnancy in 1995. The researchers also reported that although alcohol use declined from 1988 (23 percent) to 1992 (10 percent), there was a statistically significant rise to 15 percent in 1995 (47).

The nature of the birth certificate questions on alcohol use apparently has contributed to the underreporting because the questions focus on the number of drinks per week, whereas other studies inquire about drinks per month (47). Women who drink, but less than one drink per week, may report no alcohol use for the birth certificate question. The stigma associated with alcohol use also contributes to the underreporting (25,47).

Medical services utilization

Prenatal care

The percent of women who began prenatal care in the first trimester of pregnancy rose for the ninth consecutive year, to 82.8 percent for 1998. This measure of prenatal care showed little improvement during the 1980's, but has risen by 10 percent during the 1990's. (See table D and tables 33-35.) The proportion of mothers with late (care beginning in the third trimester) or no care was 3.9 percent for the current year, unchanged from 1997. The percent of women with late or no care is down from a high of 6.4 percent reported for 1989.

The effects of prenatal care are difficult to quantify (48,49), but appropriate care can promote healthier pregnancies by detecting and managing preexisting medical conditions, and providing health behavior advice (50). Prenatal care can also serve as a gateway into the health care system, especially for socially disadvantaged women (49).

The proportion of women beginning in the first trimester of pregnancy improved by about 1 percent for the current year for all of the race and ethnic groups except non-Hispanic white women, among whom the level was stable. Since 1989 timely care has risen for all groups, but gains have been most evident among groups with lower levels of timely care. For example, levels continue to be comparatively low, but increases of 19 to 28 percent have been reported among the following groups for the period 1989–98: American Indian, non-Hispanic black, Puerto Rican, Central and South American, and Mexican. (See table E and tables 24 and 25 for 1998 data.). Despite these gains, there remained a 33-percent differential between the groups with the highest (Cuban at 91.8 percent) compared with the lowest levels (American Indian at 68.8 percent) of timely care.

Improvements in the timely receipt of prenatal care have been quite widespread throughout the country during the 1990's; however, the largest increases have occurred in the South. Five southern States or reporting areas reported increases of about 20 percent or more in the percent of mothers with first trimester care for 1989–98: the District of Columbia, Florida, Georgia, South Carolina, and Texas (table 34 for 1998 data).

The Adequacy of Prenatal Care Utilization Index (APNCU), an alternative measure of prenatal care utilization, which adjusts for some of the weaknesses of the trimester care began and the Kessner Index, also indicates a slight increase in prenatal care utilization for the current year (51). According to this measure, the proportion of women with at least adequate care rose from 74.0 percent to 74.3 percent between 1997 and 1998 (table F). The proportion of women with intensive use of care (women for whom the number of visits exceeded the American

Table D. First trimester prenatal care by race and Hispanic origin of mother: United States, 1980, 1985, 1990-98

	All	Non-Hispanic		
Year	races ¹	White	Black	Hispanic ²
1998	82.8	87.9	73.3	74.3
1997	82.5	87.9	72.3	73.7
1996	81.9	87.4	71.5	72.2
1995	81.3	87.1	70.4	70.8
1994	80.2	86.5	68.3	68.9
1993	78.9	85.6	66.1	66.6
1992	77.7	84.9	64.0	64.2
1991	76.2	83.7	61.9	61.0
1990	75.8	83.3	60.7	60.2
1989	75.5	82.7	59.9	59.5
1985	76.2			
1980	76.3			

Data not available

Table E. Percent of women with care beginning in the first trimester of pregnancy by specified race and Hispanic origin of mother: United States, 1989 and 1998, and percent change, 1989-98

	Percent first trimester care		Percent change
	1998	1989	1989–98
Total, all races ¹	82.8	75.5	10
American Indian	68.8	57.9	19
Mexican	72.8	56.7	28
Non-Hispanic black	73.3	59.9	22
Puerto Rican	76.9	62.7	23
Central and South American	78.0	60.8	28
Hawaiian	78.8	66.8	18
Filipino	84.2	77.6	9
Non-Hispanic white	87.9	82.7	6
Chinese	88.5	81.5	9
Japanese	90.2	86.2	5
Cuban	91.8	83.2	10

¹Includes births to races/Hispanic origin not shown separately.

Table F. Adequacy of Prenatal Care Utilization Index: United States, selected years, 1989-98

	Intensive use	Adequate	Intermediate	Inadequate
1998	31.0	43.3	13.8	11.9
1997	30.7	43.3	14.0	12.0
1996	29.3	43.6	14.7	12.4
1995	28.8	43.7	14.7	12.8
1990	24.6	42.3	15.7	17.4
1989	24.1	42.0	15.9	18.0

NOTES: Levels may differ slightly from those previously published; see Technical notes. See reference 51 for information on calculation of this measure.

College of Obstetricians and Gynecologists' recommendations by a ratio of observed to expected visits of at least 110 percent) was up slightly (from 30.7 to 31.0 percent) and the proportion of women with intermediate or inadequate care declined (from 26.0 to 25.7 percent). For 1989-98, the APNCU shows the percent of mothers with at least

¹Includes races other than white and black and origin not stated.

²Includes all persons of Hispanic origin of any race.

adequate care increasing by 12 percent, (with most of the increase occurring among women with intensive use of care), and the percent of women with inadequate care declining by about one-third.

Obstetric procedures

The most prevalent obstetric procedure in 1998 was electronic fetal monitoring, reported for nearly 3.3 million births, or 84 percent of all live births in the United States (table 36). Six specific obstetric procedures are reported on the birth certificate.

According to data from the birth certificate, 65 percent of mothers who had live births in 1998 received ultrasound. The overall rates per 1,000 live births of stimulation of labor and induction of labor in 1998 were 178 (17.8 percent) and 192 (19.2 percent) respectively. The rates of both of these procedures have been rising steadily every year since 1989 (52,53). Some of the increase may be due to better reporting; a study based on 1989 births found that obstetric procedures were underreported on the birth certificate (54). While the highest rates of induction are found for the longest gestation periods as would be expected, rates have been rising for all gestation groups (figure 5).

Complications of labor and/or delivery

Of the 15 reported complications of labor and/or delivery, 3 were reported at a rate greater than or equal to 30 per 1,000 live births in 1998: Meconium, moderate/heavy (55 per 1,000), fetal distress (40 per 1,000), and breech/malpresentation (39 per 1,000) (table 37). Rates for these three complications varied by race and Hispanic origin (tables 27 and 28). It has been shown that levels of these complications may be underreported on the birth certificate (54).

Attendant at birth and place of delivery

In 1998 more than 9 out of 10 births (91.9 percent) were attended by a physician in a hospital, making this arrangement by far the most typical (table 38). However, the percent of births with this arrangement was slightly lower in 1998 than in 1997 (92.3 percent)

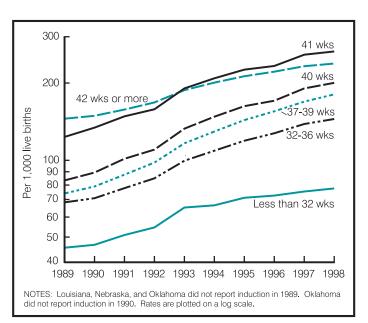


Figure 5. Rates of induction of labor by length of gestation in weeks: United States, 1989–98

and has declined from 98.4 percent in 1975. For physician-attended births, 4.3 percent were by doctors of osteopathy (DO's) while the remaining were attended by doctors of medicine (MD's). Although small, the number and percent of births attended by DO's has grown steadily since 1989, the first year data on DO's were available from the birth certificate, from 2.8 percent of all births to 4.0 percent. The percent of births attended by **midwives** increased sharply between 1975 (1.0 percent) and 1998 (7.4 percent). A recent report found that nearly all of the growth in midwife-attended births was for those in hospitals (53). About 95 percent of midwife-attended births in 1998 were by **certified nurse midwives (CNM's)**.

About 99 percent of births in 1998 were delivered in hospitals, almost unchanged from the 1975 level. The majority of out-of-hospital births were in a residence (63 percent) whereas 29 percent were in a freestanding birthing center.

About 93 percent of births to non-Hispanic white women were attended by a physician in a hospital compared with about 92 percent of births to non-Hispanic black women and 90 percent of births to Hispanic women. Hispanic women were more likely to have midwifeattended hospital births (9 percent) than were either non-Hispanic white or black women (6 to 7 percent each).

Method of delivery

The rate of cesarean delivery increased 2 percent between 1997 and 1998 (from 20.8 per 100 live births to 21.2), returning to the level observed in 1994. This was the second consecutive year that the rate increased after falling each year during 1989–96 (table G and table 39). Despite the increase, the 1998 rate was 7 percent lower than the rate of 22.8 in 1989, the first year this information was available on the birth certificate. The primary cesarean rate in 1998 (14.9 per 100 live births to women who had no previous cesarean) was 2 percent higher than in 1997 (14.6). This was the first time this rate increased during the 1989–98 period; it declined each year between 1989 and 1996 and remained steady between 1996 and 1997 (table G). The primary rate in 1998 was 7 percent lower than in 1989 (16.1) but returned to the level of 1994. The rate of vaginal birth after previous cesarean delivery (VBAC) declined 4 percent between 1997 and 1998—from 27.4 per 100 women with a previous

Table G. Total and primary cesarean rates and vaginal births after previous cesarean delivery rates: United States, 1989–98

	Cesa	rean rate		
Year	Total ¹	Primary ²	VBAC rate ³	
1998	21.2	14.9	26.3	
1997	20.8	14.6	27.4	
1996	20.7	14.6	28.3	
1995	20.8	14.7	27.5	
1994	21.2	14.9	26.3	
1993	21.8	15.3	24.3	
1992	22.3	15.6	22.6	
1991	22.6	15.9	21.3	
1990	22.7	16.0	19.9	
1989	22.8	16.1	18.9	

¹Percent of all live births by cesarean delivery.

²Number of primary cesareans per 100 live births to women who have not had a previous cesarean.

³Number of vaginal births after previous cesarean (VBAC) delivery per 100 live births to women with a previous cesarean delivery.

cesarean to 26.3. The VBAC rate has declined 7 percent between 1996 and 1998 after increasing by 50 percent between 1989 and 1996 (from 18.9 to 28.3).

Overall cesarean rates increased steadily with advancing age of the mother and were more than twice as high for mothers 40-54 years of age (33.1) than for teenagers (14.5) (table 40). Primary cesarean rates increased with additional age after age 24, to 23.3 for women 40-54 years of age. VBAC rates declined with increasing age—slightly under a third of teenagers who had a previous cesarean had a VBAC delivery (31.7 percent) compared with 20.8 percent of mothers 40-54 years of age. All age groups experienced increases in their total cesarean rate between 1997 and 1998 with mothers 25 years of age and over having slightly greater percent increases than younger women. All age groups experienced declines in VBAC rates between 1997 and 1998 except for mothers 40-54 years of age whose rate increased from 20.5 in 1997 to 20.8 in 1998.

Non-Hispanic black women had a higher cesarean rate in 1998 (22.4) than either non-Hispanic white women (21.2) or Hispanic women (20.6). The percent increase between 1997 and 1998 was highest for black women, thus increasing the disparity. Similarly, the primary cesarean rate for non-Hispanic black women (16.0) was higher than the rate for non-Hispanic white women (15.1) and Hispanic women (13.6). All groups experienced increases in their primary cesarean rate from 1997 to 1998, but the percent increase for non-Hispanic black women was slightly higher than for non-Hispanic white and Hispanic women. The VBAC rate in 1998 was highest for non-Hispanic white women (27.3), lowest for Hispanic women (22.4), and intermediate for non-Hispanic black women (25.7). The VBAC rate for each group declined between 1997 and 1998 with Hispanic women having a slightly greater percent decline than the other groups.

American Indian and Asian or Pacific Islander (API) mothers had lower cesarean rates (18.6 and 19.4, respectively) than either non-Hispanic white or black mothers (tables 24 and 25). With the exception of Filipino mothers, all specified API categories had lower rates of cesarean delivery than either non-Hispanic white or black mothers. The rate of cesarean delivery varied between 19.8 and 22.2 for all Hispanic subgroups except for Cuban mothers whose rate was much higher (31.0) (table 25).

There was considerable variation in cesarean rates by State ranging from a high of 27.0 in Mississippi to a low of 14.7 in Alaska; the rate for Puerto Rico was 35.1 (table 41). There was also considerable variation in VBAC rates by State, from 40.6 in Vermont to 13.1 in Louisiana.

All of the selected medical risk factors in table 42 were associated with overall cesarean rates that were equal to or higher than the national average. Cesarean rates for the medical risk factors ranged from 21.2 for mothers with Rh sensitization to 48.8 for mothers with eclampsia. Certain complications of labor and/or delivery are also associated with high cesarean rates. Nearly all births with cephalopelvic disproportion were cesarean deliveries (96.2) while the cesarean rates for breech/malpresentation (84.2) and placenta previa (81.5) were also very high.

During the 1989–98 period, the percent of births that were delivered by either forceps or vacuum extraction remained steady at around 9 percent. During that period, however, there was a shift as the number and percent of births delivered by forceps declined each year whereas the use of vacuum extraction generally increased (tabular data not shown). In 1998, 2.6 percent of births were delivered by forceps compared with 5.5 percent in 1989—a 53-percent decline. Vacuum extraction was used in 6.0 percent of births in 1998, a slightly lower proportion than in 1997 (6.2), but 71 percent higher than in 1989 (3.5). The slight decline between 1997 and 1998 in the percent of births deliveried by vacuum extraction was also apparent when examining vaginal births only—from 7.8 percent of all vaginal births in 1997 to 7.7 percent in 1998.

Infant health characteristics

Period of gestation

The **preterm birth rate** rose again for 1998, to 11.6 percent, following a rise from 11.0 to 11.4 percent for 1996-97. The percent of births born preterm, or at earlier than 37 completed weeks of gestation, has risen 9 percent since 1989-90 (from 10.6 percent), and 23 percent since 1981 (9.4 percent). Most of the current year rise was among moderately preterm births (32-36 weeks), which increased from 9.43 to 9.63 percent; the percent of births born very preterm, (prior to 32 completed weeks of gestation) was 1.94 percent for 1997 compared with 1.96 percent for 1998. (See tables 43, 44, and figure 6.) Preterm birth, especially very preterm birth, is a major cause of infant mortality and has been associated with long-term neurodevelopmental and respiratory disorders (55,56).

The steady climb in the preterm rate among non-Hispanic white births continued, rising from 9.9 to 10.2 percent between 1997 and 1998. Since 1989 the non-Hispanic white preterm rate has risen more than 20 percent (from 8.4 percent). This upswing is influenced by increases in the rate of multiple births (multiple births are about 6 times more likely to be born preterm than singleton births). However, increases in preterm singleton births have also been observed (57) (figure 6). For 1997-98, the percent of non-Hispanic white preterm singletons rose from 8.42 to 8.59, but most of the rise was among moderately preterm births. Between 1989 and 1998, the singleton preterm birth rate for this group has risen from 7.48 percent (compared with the overall rise of 8.4 to 10.2 percent) with nearly all the increase among moderately preterm births; the percent of very preterm singletons increased only from 1.12 to 1.15 percent (57).

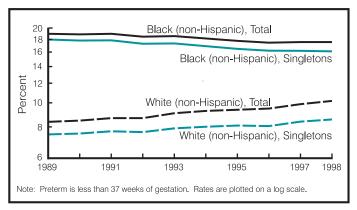


Figure 6. Rate of preterm birth by plurality and race and Hispanic origin of mother: United States, 1989-98

The preterm rate for **non-Hispanic black** births of all pluralities was unchanged at 17.6 percent for 1998. Among singleton births only, however, the preterm rate declined from 16.23 to 16.15 percent between 1997 and 1998 (**figure 6**). Most of the decline was for very preterm singleton births (from 3.72 to 3.66 percent); the rate for moderately preterm singleton births was essentially unchanged. Since 1989 the non-Hispanic black preterm singleton birth rate is down from 18.03 percent, and very preterm singleton births from 4.29 percent.

The proportion of **Hispanic** births born preterm rose from 11.2 to 11.4 percent between 1997 and 1998; the bulk of the increase was for moderately preterm births. (Relative trends in preterm rates for Hispanic births were largely unaffected by trends in multiple births.) The preterm rate for Hispanic births has fluctuated around 11 percent during the 1990's. Small increases, both for the current year and since 1989, were found for each of the Hispanic subgroups. (See table 25 for 1998 data.)

Birthweight

The rate of **low birthweight** (LBW) (less than 2,500 grams) rose from 7.5 to 7.6 percent for 1997–98. The proportion of LBW births has risen slowly from the low of 6.7 reported in 1984, and is currently at levels as high as those reported in the early 1970's. (**See tables 43–47 and figure 7**.) The percent **very low birthweight** (VLBW) (less than 1,500 grams) was 1.45 percent for 1998, up slightly from 1.42 percent reported for 1997. The rate of VLBW has also increased over the last two decades (from 1.13 percent in 1977). LBW infants, especially VLBW infants, are at greater risk than heavier babies of long-term morbidity and early death (58). For 1997, VLBW infants comprised 51 percent of all those who did not survive the first year of life; moderately LBW infants, those weighing between 1,500 and 2,499 grams, accounted for an additional 14 percent of infant deaths (56).

The increase in the proportion of twins and triplets, because of their much higher risk of LBW, is continuing to have an important impact on overall trends in LBW. All of the increase in LBW between 1997 and 1998 is attributable to the rise in the proportion of multiple births and

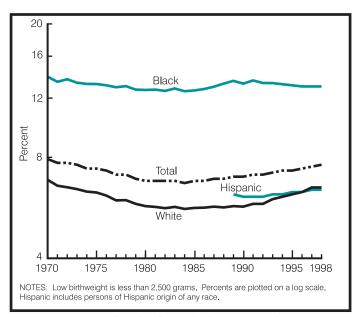


Figure 7. Percent low birthweight by race and Hispanic origin of mother: United States, 1970–98

to a small increase (1 percent) in LBW among multiple births. (For 1998, 56.9 percent of multiples were LBW compared with 6.1 percent of singletons.) Among singletons only, low birthweight was down slightly for 1997–98, from 6.08 to 6.05 percent. Since 1989 overall LBW has risen 9 percent, but LBW among singletons has risen by less than 1 percent (from 6.0 percent). See table H.

Overall low birthweight increased slightly between 1997 and 1998 among non-Hispanic white (from 6.5 to 6.6 percent) and non-Hispanic black births (from 13.1 to 13.2 percent), and was unchanged for Hispanic births (6.4 percent). All of the increase in LBW among the former two groups for the current year is attributable to the rise in multiple births. Singleton LBW declined very slightly among both non-Hispanic white and non-Hispanic black births (from 4.95 to 4.91 and 11.46 to 11.44 percent, respectively).

In recent years, the rise in multiple birth rates has especially influenced LBW levels among non-Hispanic white births. Since 1989 overall LBW for this group has risen 18 percent (from 5.6 percent), but singleton LBW has risen a more modest 7 percent (see table H). Singleton non-Hispanic white VLBW was essentially unchanged for 1997–98 at 0.81 percent.

Among non-Hispanic black births, singleton LBW has declined from 12.2 to 11.4 percent between 1989 and 1998, a somewhat steeper decline than is observed for all births (13.6 to 13.2 percent). However, the percent of singleton VLBW non-Hispanic black births has not improved over this period, hovering at about 2.6 percent, a level approximately three times as high as that of non-Hispanic white (0.81 percent) and Hispanic births (0.94 percent).

Overall and singleton LBW among Hispanic births has been comparatively stable during the 1990's. Levels for all pluralities have risen slightly from 6.2 to 6.4 percent; the singleton rate was essentially unchanged at 5.4 percent. The percent VLBW for all Hispanic births has risen slightly during the 1990's from 1.05 to 1.15 for 1989–98. As in previous years, the risk of LBW varied among the Hispanic subgroups for 1998. Levels ranged from 6.0 percent for Mexican, to 9.7 percent for Puerto Rican infants. (See table 25.)

The 1998 incidence of low birthweight among **American Indian infants** was 6.8 percent, unchanged from 1997. There were no notable

Table H. Percent low birthweight among singletons by race and Hispanic origin of mother: United States, 1989–98

Year	Total	Non-Hispanic White	Non-Hispanic Black	Hispanic ¹
1998	6.05	4.91	11.44	5.40
1997	6.08	4.95	11.46	5.43
1996	6.03	4.90	11.55	5.34
1995	6.05	4.87	11.66	5.36
1994	6.05	4.79	11.79	5.37
1993	6.05	4.70	11.90	5.34
1992 ²	5.93	4.59	11.91	5.22
1991 ²	5.99	4.61	12.15	5.29
1990 ³	5.90	4.56	11.92	5.23
19894	6.00	4.60	12.22	5.35

¹Includes persons of Hispanic origin of any race.

NOTE: Low birthweight is less than 2,500 grams, or 5 lb 8 oz.

²Excludes data for New Hampshire, which did not require reporting of Hispanic origin of mother

³Excludes data for New Hampshire and Oklahoma, which did not require reporting of Hispanic origin of mother.

Excludes data for Louisiana, New Hampshire, and Oklahoma, which did not require reporting of Hispanic origin of mother.

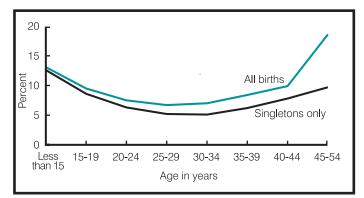


Figure 8. Percent low birthweight for all births and for singleton births only, by age of mother: United States, 1998

changes in LBW for the Asian or Pacific Islander subgroups; levels ranged from 5.3 percent for Chinese to 8.2 percent for Filipino births (table 24).

Age-specific low birthweight rates for all pluralities follow a U-shaped pattern with levels slightly higher among older mothers. This pattern is strongly influenced, however, by the higher multiple birth rates of older women. For example, the overall percent LBW for women aged 45–54 years was 18.6 percent for 1998, by far the highest age-specific rate reported. When only singleton births are examined however, the LBW rate for this age group drops to 9.7 percent, substantially lower than the rate of 12.6 percent reported for teenagers under 15 years of age. (See figure 8.)

The percent macrosomia (birthweight of at least 4,000 grams) was 10.1 for 1998, the same level reported for 1997. The percent of macrosomic births peaked at about 11 during the 1980's, but has generally declined in the 1990's.

The median birthweight for all births for 1998 was 3,350 grams (7 pounds, 7 ounces), unchanged since 1995. The median for white births was 3,390 grams, and for black births 3,180 grams.

As in previous years, LBW and VLBW rates varied quite widely by State for 1998. Among non-Hispanic white births, LBW levels ranged from a low of 5.1 percent in Oregon to a high of 8.9 percent for Wyoming. Among States with at least 1,000 births to non-Hispanic black mothers, LBW rates for this population ranged from 9.8 percent in Washington State to 15.9 percent in the District of Columbia (table 46).

Apgar score

The Apgar score was developed by the late Virginia Apgar, M.D., as a means of evaluating the physical condition of newborns shortly after delivery (59). The score considers five characteristics of the baby that are easily identifiable—heart rate, respiratory effort, muscle tone, reflex irritability, and color. Each of these characteristics is assessed and assigned a value of 0 to 2, with 2 being optimum. The total score is the sum of the scores of the five components and a score of 7 or greater indicates that the baby is in good to excellent physical condition. The 5-minute Apgar score is based on an assessment at 5 minutes after delivery and is used to predict the newborn's chance of survival.

In 1998 all States except California and Texas collected information on the 5-minute Apgar score. Births to residents of these States accounted for 78 percent of all births in the U.S. Only 1.4 percent of babies had Apgar scores that were considered low (less than 7) at 5 minutes after birth, unchanged since 1993 (tables 24 and 25).

Of the major racial and ethnic groups, Asian or Pacific Islander babies as a group were in the best physical condition shortly after delivery—only 1.1 percent had scores of less than 7 (table 23). This was particularly true for Japanese and Chinese babies—0.7 percent had low 5-minute scores. The percent of babies with low scores was intermediate for non-Hispanic white and Hispanic women (1.3 and 1.2 percent, respectively) while 2.4 percent of non-Hispanic black babies had low 5-minute scores.

Abnormal conditions of the newborn

Of the eight specific abnormal conditions reported on the birth certificate, the rates per 1,000 live births in 1998 were highest for assisted ventilation less than 30 minutes (22 per 1,000), assisted ventilation 30 minutes or longer (9 per 1,000), and hyaline membrane disease/respiratory distress syndrome (RDS) (6 per 1,000) (table 48). It has been shown that these conditions may be underreported on the birth certificate (54).

Congenital anomalies

In 1998 congenital anomalies were reported on the birth certificates of the District of Columbia and all States except New Mexico. These areas included 99 percent of births in the United States. Several studies have shown that congenital anomalies are underreported on the birth certificate (54, 60, 61). For example, a recent study based on surveillance data estimated that there are about 4,000 cases of spina bifida and anencephalus each year in the United States; birth certificate data for 1998 identified a total of only 1,236 cases for these two neural tube defects (61).

Because many of the congenital anomalies tracked on birth certificates occur infrequently, the rates shown in this report are calculated per 100,00 live births (table 49). Caution should be used in comparing yearly rates for a specific anomaly as a small change in the number of anomalies reported can result in a relatively large change in rates.

Multiple births

The number of births in twin deliveries rose 6 percent for 1997–98, to 110,670 births, the largest single-year rise in several decades. The number of triplet births climbed to 6,919, a rise of 13 percent. Births in quadruplet deliveries increased from 510 to 627 between 1997 and 1998; the number of quintuplet and other higher order multiples was unchanged at 79. (See table J and table 50.) Since 1980 twin births have risen 62 percent (from 68,339) and triplet and other higher order multiple births (heretofore referred to as triplet/+) have jumped 470 percent (from 1,337).

The twin birth rate (the number of twin births per 1,000 live births) rose 5 percent for the current year to 28.1 (or 2.8 percent of all births). The triplet/+ birth rate (the number of triplet, guadruplet, and guintuplet and other higher-order multiples per 100,000 live births), jumped 11 percent for 1998, to 193.5 per 100,000 (or 0.2 percent of births). Both twin and triplet/+ birth rates have risen steadily since 1980, by 49 and 423 percent respectively (62), but the pace of the increase has quickened in the 1990's (figure 9). Between 1990 and 1998, the twinning rate has risen about 3 percent per year, and the triplet/+ rate an average of

Table J. Numbers of twin, triplet, quadruplet, and quintuplet and other higher order multiple births: United States, 1989–98

Year	Twins	Triplets	Quadruplets	Quintuplets and other higher order multiples ¹
1998	110,670	6,919	627	79
1997	104,137	6,148	510	79
1996	100,750	5,298	560	81
1995	96,736	4,551	365	57
1994	97,064	4,233	315	46
1993	96,445	3,834	277	57
1992	95,372	3,547	310	26
1991	94,779	3,121	203	22
1990	93,865	2,830	185	13
1989	90,118	2,529	229	40

¹Quintuplets, sextuplets, and higher order multiple births are not differentiated in the national data set.

13 percent annually. In 1998, one in every 36 births was a twin; almost one in every 500 births was a triplet/+.

The recent rise in multiple births has been especially pronounced among women 30 years of age and over. Between 1980–82 and 1996–98 (data for 3 years are combined to generate more statistically reliable rates) the twin birth rate increased 77 percent among women aged 40–44 years (from 21.6 to 38.2 per 1,000), and by more than 1,000 percent among women 45–49 years of age (from 10.8 to 129.9). The triplet/+ birth rate rose 461 percent for women in their thirties (from 59.3 to 332.4 per 100,000), and almost 15 times for women in their forties (from 28.1 to 411.9). In contrast, among women aged 20–24 years, twin birth rates rose a comparatively modest 18 percent and triplet birth rates by 53 percent over this time period (62).

Two related trends have been associated with the rise in multiple births, especially with the rise of higher order multiples; older age at childbearing (women in their thirties are more likely than younger women to have a multiple birth, even without the use of fertility therapy), and the more widespread use of fertility-enhancing therapies (fertility drugs and techniques such as in vitro fertilization). These therapies have been associated with the remarkable upswing in multiple births of the 1980's and 1990's (63–65). A recent study estimates that about 80

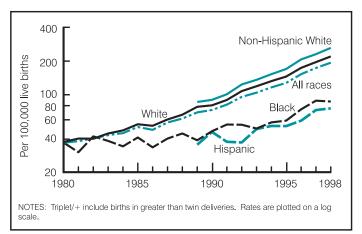


Figure 9. Triplet/+ birth rates by race and Hispanic origin of mother, 1980-98

percent of triplet/+ births in 1996 and 1997 were the result of fertility techniques (66).

Twinning rates rose 4 to 5 percent among the three largest U.S. racial and ethnic groups for 1997–98, but continue to be slightly higher among non-Hispanic black (31.3) compared with non-Hispanic white (30.2) women. The Hispanic twin birth rate continued to be substantially lower (20.4) than both. Most of the overall increase in the triplet/+ rate was the result of a sizable 14 percent rise among non-Hispanic white women (from 230.8 to 262.8 per 100,000); levels among other groups changed only slightly. Rates have risen substantially for all groups over the past two decades, but the largest increase has been observed among triplet/+ births to white mothers. In 1998 the triplet/+ birth rate for non-Hispanic white women (262.8) was 3 times as high as that for non-Hispanic black women (87.3), and Hispanic women (75.3). This differential is likely associated with the older age at childbearing of non-Hispanic white women compared with their black and Hispanic counterparts, and with their wider use of infertility services (16).

Currently, multiple birth rates rise with increasing **maternal age** until age group 35–39 years, dip slightly for women aged 40–44 years, and then peak sharply for women aged 45–54 years. This is a change from earlier years when rates were highest among women aged 35–39 years (62). In 1998 one of every six births to women aged 45–49 years and one in three births to women 50–54 years was a twin or triplet/+.

Multiple births are at greater risk than singletons of being born too early and too small and, accordingly, of not surviving the first year of life. For 1998, 41.7 percent of twins, and 89.1 percent of triplet/+ were born both **preterm and LBW**, compared with 3.8 percent of singletons. The increase in the multiple birth rate because of their higher levels of risk is having an important impact on these basic measures of national and state perinatal health (57, 67). For example, the overall U.S. level of LBW was up for 1998, but LBW among singleton births only, was slightly lower. (See sections on birthweight and period of gestation.)

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List of tables

1.	Live births, birth rates, and fertility rates, by race: United States, specified years 1940–55 and each year, 1960–98	24
2.	Live births by age of mother, live-birth order, and race of mother: United States, 1998	25
3.	Fertility rates and birth rates by age of mother, live-birth order, and race of mother: United States, 1998	26
4.	Total fertility rates and birth rates by age of mother: United States, 1970–98, and by age and race of mother:	
	United States, 1980–98	27
5.	Fertility rates and birth rates by live-birth order and race of mother: United States, 1980–98	20
6.	Live births, birth rates, and fertility rates, by Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1989–98.	30
7.	Live births by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin:	
_	United States, 1998	31
8.	Fertility rates and birth rates by age of mother, live-birth order,	
	Hispanic origin of mother, and by race for mothers of non-	
	Hispanic origin: United States, 1998	33
9.	Total fertility rates, fertility rates, and birth rates by age and	
	Hispanic origin of mother and by race for mothers of non-	

Hispanic origin: United States, 1989–98.....

48.	Live births with selected abnormal conditions of the newborn and rates by age of mother, by race of mother: United States,	
	1998	82
49 .	Live births with selected congenital anomalies and rates by age	
	of mother, by race of mother: Total of 49 reporting States and the	
	District of Columbia, 1998	83
50.	Live births by plurality of birth and ratios, by age and race and	
	Hispanic origin of mother: United States, 1998	85

Guide to tables in Births: Final Data for 1998

TABLE:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Geographic area: States ¹										10	11	12							19						
United States or all reporting areas	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Years: Current year only		2	3				7	8		10	11	12	13	14	15	16	17		19		21	22	23	24	25
Trend	1			4	5	6			9									18		20					
Type of entry: Number of births	1	2				6	7			10	11	12	13	14	15	16	17		19		21	22			
Rates or other measures	1		3	4	5	6		8	9	10			13	14	15	16	17	18	19	20	21	22	23	24	25
Characteristics: Age of father																				20					
Age of mother		2	3	4			7		9								17	18			21				
Alcohol use																								24	25
Apgar score																								24	25
Birthweight																							23	24	25
Day of week																16									
Education													13	14							21				
Gestational age																						22	23	24	25
Hispanic origin of mother						⁴ 6	⁴ 7	⁴ 8	⁴ 9			⁴ 12		⁴ 14			⁶ 17	⁶ 18	⁶ 19		⁶ 21	⁶ 22	⁴ 23		⁴ 25
Live-birth order		2	3		5		7	8						13	14										
Method of delivery																16								24	25
Month of birth															15										
Nativity of mother													13	14										24	25
Prenatal care																								24	25
Race of father																				³ 20					
Race of mother	² 1	² 2	23	² 4	³ 5	⁴ 6	47	⁴ 8	⁴ 9		² 11	⁴ 12	⁵ 13	⁴ 14	³ 15	³ 16	⁶ 17	⁶ 18	⁶ 19		³ 21	⁶ 22	⁴ 23	⁵ 24	⁴ 25
Sex of child													13	14											
Teenage mothers										10			13	14											
Tobacco use																								24	25
Unmarried mothers													13	14			17	18	19						
Weight gain during pregnancy																		-				22	23	24	25
g gam aamig prognantly																								<u> </u>	

TABLE:	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Geographic area: States ¹									34							41					46	47			
United States or all reporting areas	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Years: Current year only	26	27	28	29	30	31	32	33	34	35	36	37	38		40	41	42	43		45	46	47	48	49	50
Trend														39					44						
Type of entry: Number of births	26	27	28	29	30	31		33		35	36	37	38	39	40		42	43		45	46	47	48	49	50
Rates or other measures	26	27	28	29	30	31	32	33	34	35	36	37		39	40	41	42	43	44	45	46	47	48	49	50
Characteristics: Abnormal conditions of newborn																							48		
Age of mother	26			29	30		32	33			36	37			40					45			48	49	50
Attendant at birth													38												
Birthweight							32											43	44	45	46	47			
Complications of labor		27	28									37					42								
Congenital anomalies																								49	
Education						31																			
Gestational age																		43	44						
Hispanic origin of mother			⁴ 28		430	⁶ 31	⁶ 32	⁶ 33	⁶ 34	⁶ 35			⁶ 38	⁶ 39	⁶ 40	⁶ 41		⁶ 43	⁶ 44	⁶ 45	⁶ 46	⁶ 47			⁶ 50
Medical risk factors	26	27	28														42								
Method of delivery														39	40	41	42								
Obstetric procedures		27	28								36														
Place of delivery													38												
Multiple births																									50
Prenatal care								33	34	35															
Race of mother	³ 26	⁵ 27	⁴ 28	³ 29	430	³ 31	⁶ 32	⁶ 33	⁶ 34	⁶ 35	³ 36	³ 37	⁶ 38	⁶ 39	⁶ 40	⁶ 41		⁶ 43	³ 44	⁶ 45	⁶ 46	⁶ 47	³ 48	³ 49	⁶ 50
Tobacco use				29	30	31	32																		
1																									

¹Includes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas; data for American Samoa not available for tables 34 and 41.

²Includes white, black, American Indian, Asian or Pacific Islander.

³Includes white and black.

⁴Includes Mexican, Puerto Rican, Cuban, Central and South American, other and unknown Hispanic, non-Hispanic white, and non-Hispanic black. ⁵Includes white, black, American Indian, Chinese, Japanese, Hawaiian, Filipino, and other Asian and Pacific Islanders.

⁶Includes Hispanic, non-Hispanic white, and non-Hispanic black.

Table 1. Live births, birth rates, and fertility rates, by race: United States, specified years 1940-55 and each year, 1960-98

[Birth rates are live births per 1,000 population in specified group. Fertility rates per 1,000 women aged 15-44 years in specified group. Population enumerated as of April 1 for census years and estimated as of July 1 for all other years. Beginning with 1970, excludes births to nonresidents of the United States]

			Number					Birth ra	ate				Fertility	rate	
Year	All races ¹	White	Black	American Indian ²	Asian or Pacific Islander	All races ¹	White	Black	American Indian ²	Asian or Pacific Islander	All races ¹	White	Black	American Indian ²	Asian or Pacific Islander
Registered births															
Race of mother:															
1998		3,118,727	609,902	40,272	172,652	14.6	14.0	17.7	17.1	16.4	65.6	64.6	71.0	70.7	64.0
1997		3,072,640	599,913	38,572	169,769	14.5	13.9	17.7	16.6	16.9	65.0	63.9	70.7	69.1	66.3
1996			594,781	37,880	165,776	14.7	14.1	17.8	16.6	17.0	65.3	64.3	70.7	68.7	65.9
1995		3,098,885	603,139	37,278	160,287	14.8	14.2	18.2	16.6	17.3	65.6	64.4	72.3	69.1	66.4
1994		3,121,004	636,391	37,740	157,632	15.2	14.4	19.5	17.1	17.5	66.7	64.9	76.9	70.9	66.8
1993 1992			658,875	38,732 39,453	152,800 150,250	15.5 15.9	14.7 15.0	20.5 21.3	17.8 18.4	17.7 18.0	67.6 68.9	65.4 66.5	80.5 83.2	73.4 75.4	66.7 67.2
1992			673,633 682,602	38,841	145,372	16.3	15.0	21.3	18.4	18.0	69.6	67.0	85.2	75.4 75.1	67.2 67.6
1990		3,290,273	684,336	39,051	141,635	16.7	15.4	22.4	18.9	19.0	70.9	68.3	86.8	76.2	69.6
1989		3,192,355	673,124	39,478	133,075	16.4	15.4	22.3	19.7	18.7	69.2	66.4	86.2	79.0	68.2
1988			638,562	37,088	129,035	16.0	15.0	21.5	19.3	19.2	67.3	64.5	82.6	76.8	70.2
1987			611,173	35,322	116,560	15.7	14.9	20.8	19.1	18.4	65.8	63.3	80.1	75.6	67.1
1986			592,910	34,169	107,797	15.6	14.8	20.5	19.2	18.0	65.4	63.1	78.9	75.9	66.0
1985	3,760,561	3,037,913	581,824	34,037	104,606	15.8	15.0	20.4	19.8	18.7	66.3	64.1	78.8	78.6	68.4
1984 3	3,669,141	2,967,100	568,138	33,256	98,926	15.6	14.8	20.1	20.1	18.8	65.5	63.2	78.2	79.8	69.2
1983 3	3,638,933	2,946,468	562,624	32,881	95,713	15.6	14.8	20.2	20.6	19.5	65.7	63.4	78.7	81.8	71.7
1982 3	3,680,537	2,984,817	568,506		93,193	15.9	15.1	20.7	21.1	20.3	67.3	64.8	80.9	83.6	74.8
1981 ³	3,629,238	2,947,679	564,955	29,688	84,553	15.8	15.0	20.8	20.0	20.1 19.9	67.3	64.8 65.6	82.0 84.7	79.6 82.7	73.7 73.2
1960	3,012,230	2,930,331	568,080	29,389	74,355	15.9	15.1	21.3	20.7	19.9	68.4	65.6	04.7	02.7	13.2
Race of child:															
1980 ³			589,616	36,797		15.9	14.9	22.1			68.4	64.7	88.1		
1979 3			577,855	34,269		15.6	14.5	22.0			67.2	63.4	88.3		
1978 3	3,333,279	2,681,116	551,540	33,160		15.0	14.0	21.3			65.5	61.7	86.7		
1977 3	3,326,632	2,691,070	544,221	30,500		15.1	14.1	21.4			66.8	63.2	88.1		
1976 ³	3,107,788	2,557,614	514,479 511,581	29,009 27,546		14.6 14.6	13.6 13.6	20.5 20.7			65.0 66.0	61.5 62.5	85.8 87.9		
1974 3	3,144,190	2,551,990	507,162	26,631		14.8	13.0	20.7			67.8	64.2	89.7		
1973 3	3 136 965	2,573,732	512,597	26,464		14.8	13.8	21.4			68.8	64.9	93.6		
1972 ³	3 258 411	2,655,558	531,329	27,368		15.6	14.5	22.5			73.1	68.9	99.9		
1971 4	3.555.970	2.919.746	564,960	27,148		17.2	16.1	24.4			81.6	77.3	109.7		
1970 4	3,731,386	3,091,264	572,362	25,864		18.4	17.4	25.3			87.9	84.1	115.4		
1969 ⁴	3,600,206	2,993,614	543,132	24,008		17.9	16.9	24.4			86.1	82.2	112.1		
1968 4	3,501,564	2,912,224	531,152			17.6	16.6	24.2			85.2	81.3	112.7		
1967 ⁵	3,520,959	2,922,502	543,976			17.8	16.8	25.1			87.2	82.8	118.5		
1966 4	3,606,274	2,993,230	558,244	23,014		18.4	17.4	26.2			90.8	86.2	124.7		
1965 4	3,760,358	3,123,860	581,126	24,066		19.4	18.3	27.7			96.3	91.3	133.2		
1964 ⁴	4,027,490	3,369,160	607,556	24,382 22.358		21.1 21.7	20.0 20.7	29.5			104.7 108.3	99.8 103.6	142.6		
1963 ^{4, 6} 1962 ^{4, 6}	4,098,020	3,320,344	580,658 584,610			21.7	20.7				112.0	103.6			
1961 4	4,107,302	3,600,864	611,072			23.3	22.2				117.1	112.3			
1960 ⁴	4.257.850	3.600.744	602,264	21,114		23.7	22.7	31.9			118.0	113.2	153.5		
Births adjusted for underregis- tration	, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,		,											
Race of child:															
1955	4,097,000	3,485,000				25.0	23.8				118.3	113.7			
1950						24.1	23.0				106.2	102.3			
1945						20.4	19.7				85.9	83.4			
1940	2 559 000	2 199 000				19.4	18.6				79.9	77.1			

<sup>Data not available.
For 1960-91 includes births to races not shown separately.
Includes births to Aleuts and Eskimos.
Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.
Based on a 50-percent sample of births.
Based on a 20- to 50-percent sample of births.
Figures by race exclude New Jersey.</sup>

Table 2. Live births by age of mother, live-birth order, and race of mother: United States, 1998

[Live-birth order refers to number of children born alive to mother]

								Age o	of mother						
Live-birth order and	All	Under			15-1	9 years				05.55	00.01	05.00	46. 1	45.45	
race of mother	ages	15 years	Total	15 years	16 years	17 years	18 years	19 years	20-24 years	25-29 years	30-34 years	35-39 years		45-49 years	50-54 years
All races	3,941,553	9,462	484,895	24,777	55,033	93,421	137,567	174,097	965,122	1,083,010	889,365	424,890	81,027	3,624	158
1st child		9,181	375,216				105,034	118,062	437,632	394,268	248,986		16,897	824	46
2d child		160	87,814	984		12,316	26,584	43,564	334,566	376,634	321,412	137,137		826	
3d child	646,539	10	15,265	31	289	1,321	4,206	9,418	133,872	193,783	186,685		16,821	625	
4th child	247,955 90.960	-	1,958 237	3	10 4	92 5	438 50	1,415 178	39,001 10,064	72,761 24,957	75,459 28,647	48,380 21,179		402 238	
5th child6th child	37,303		44		4	2	9	29	2,453	9,021	12,099	10,273		170	
7th child	17,347	_	2		-	_	-	2	552	3,347	5,824	5,504		131	3
8th child and over	17,975	_	7	_	_	_	3	4	241	1,902	4,975	6,786		360	
Not stated	26,191	111	4,352	219	537	928	1,243	1,425	6,741	6,337	5,278	2,750	573	48	
White	3,118,727	4,801	340,694	15,233	36,439	64,951	97,971	126,100	736,664	880,688	737,532	349,799	65,485	2,934	130
1st child	1,252,522	4,673	270,096				77,158	88,850	347,830	329,613	207,898		14,008	691	39
2d child	1,032,725	64	57,712	511	2,432	7,469	17,277	30,023	259,262	312,718	270,544	113,599		679	
3d child	512,186	5	8,619	10	145	693	2,370	5,401	94,400	155,235	156,965		13,482	508	
4th child	188,211	-	912	3	4	49	199	657	23,507	54,225	61,391	39,885		335	
5th child	64,535	-	90	-	1	3	17	69	5,026	16,311	21,701	16,770		193	
6th child7th child	25,024 11.166	-	20	-	2	1	4	13	998 191	5,083 1,611	8,366 3.690	7,852 4,031		130 98	
8th child and over	11,591		4				2	2	112	807	2,686	4,788		262	
Not stated	20,767	59	3,241	134	383	695	944	1,085	5,338	5,085	4,291	2,251	463	38	
Black	609,902	4,289	126,937	8,599	16,414	25,090	34,885	41,949	189,088	139,302	93,785	46,657	9,496	339	9
1st child	230,875	4,153	91,718	8,078	14,393	19,886	24,310	25,051	69,521	34,951	20,583	8,365	1,523	58	3
2d child	179,852	88	27,134	432	1,765	4,412	8,401	12,124	63,539	44,776	28,982	13,060		61	2
3d child	105,116	5	6,074	18	122	567	1,681	3,686	34,763	30,520	20,902	10,713		62	
4th child	48,635	-	957	-	4	36	220	697	13,909	15,308	10,770	6,270		35	
5th child	21,775	-	129	-	3	2	29	95	4,548	7,266	5,490	3,428	880	34	
6th child	9,942 4,883	-	21 2	-	2	1	5	13 2	1,288 305	3,258 1,441	2,962 1,662	1,878 1,124	509 329	26 20	
7th child8th child and over	4,840		3				1	2	108	912	1,780	1,124	529 507	35	
Not stated	3,984	43	899	71	125	186	238	279	1,107	870	654	327	76	8	
American Indian 1	40,272	197	8,201	491	1,044	1,632	2,283	2,751	13,046	9,529	5,930	2,795	555	19	-
1st child	14.051	186	6.152	461	932	1.348	1.672	1,739	4.648	1.877	836	304	47	1	
2d child	10,879	3	1,591	19	80	220	487	785	4,658	2,679	1,334	531	81	2	
3d child	7,102	-	262	-	6	26	67	163	2,494	2,344	1,306	584	108	4	
4th child	3,769	-	34	-	1	4	8	21	799	1,360	1,007	468	98	3	-
5th child	1,957	-	-	-	-	-	-	-	220	685	614	359	77	-	
6th child	1,008	-	2	-	-	-	-	2	63	315	361	218	48	1	
7th child	563	-	-	-	-	-	-	-	25	124	231	147	34	2	
8th child and over Not stated	459 484	8	160	11	25	34	49	- 41	2 137	66 79	174 67	157 27	57 5	3	-
Asian or Pacific Islander	172,652	175	9,063	454	1,136	1,748	2,428	3,297	26,324	53,491	52,118	25,639		332	19
1st child	79.030	169	7,250	426	1,026	1,482	1,894	2,422	15,633	27,827	19,669	7,085		74	
2d child	57,349	5	1,377	22	89	215	419	632	7,107	16,461	20,552	9,947	1,815	84	
3d child	22,135	-	310	3	16	35	88	168	2,215	5,684	7,512	5,207	1,155	51	1
4th child	7,340	-	55	-	1	3	11	40	786	1,868	2,291	1,757	552	29	
5th child	2,693	-	18	-	-	-	4	14	270	695	842	622	236	9	
6th child	1,329	-	1	-	-	-	-	1	104	365	410	325	110	13	1
7th child	735	-	-	-	-	-	-	-	31	171	241	202	79	11	-
8th child and over	1,085	-	-	-	-	- 40	- 40	-	19	117	335	349	196	60	
Not stated	956	1	52	3	4	13	12	20	159	303	266	145	29	1	-

⁻ Quantity zero.

1 Includes births to Aleuts and Eskimos.

Table 3. Fertility rates and birth rates by age of mother, live-birth order, and race of mother: United States, 1998

[Rates are live births per 1,000 women in specified age and racial group. Live-birth order refers to number of children born alive to mother. Figures for live-birth order not stated are distributed]

						Age of	mother				
Live-birth order and	15-44			15-19 years			05.00	00.04	05.00		45.40
race of mother	years ¹	10-14 years	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years ²
All races	65.6	1.0	51.1	30.4	82.0	111.2	115.9	87.4	37.4	7.3	0.4
1st child	26.4	1.0	39.9	27.0	59.2	50.8	42.5	24.6	8.3	1.5	0.1
2d child	21.4	0.0	9.3	3.1	18.6	38.8	40.6	31.8	12.1	2.0	0.1
3d child	10.8	*	1.6	0.3	3.6	15.5	20.9	18.4	8.8	1.5	0.1
4th child	4.2	*	0.2	0.0	0.5	4.5	7.8	7.5	4.3	0.9	0.0
5th child	1.5	*	0.0	*	0.1	1.2	2.7	2.8	1.9	0.5	0.0
6th and 7th child	0.9	*	0.0	*	0.0	0.3	1.3	1.8	1.4	0.5	0.0
8th child and over	0.3	*	*	*	*	0.0	0.2	0.5	0.6	0.3	0.0
our ornic and over	0.0					0.0	0.2	0.0	0.0	0.0	0.0
White	64.6	0.6	45.4	25.9	74.6	107.2	119.1	90.5	37.8	7.2	0.4
1st child	26.1	0.6	36.4	23.4	55.8	51.0	44.8	25.7	8.4	1.6	0.1
2d child	21.5	0.0	7.8	2.3	15.9	38.0	42.5	33.4	12.3	2.0	0.1
3d child	10.7	*	1.2	0.2	2.6	13.8	21.1	19.4	9.0	1.5	0.1
4th child	3.9	*	0.1	0.0	0.3	3.4	7.4	7.6	4.3	0.9	0.0
5th child	1.3	*	0.0	*	0.0	0.7	2.2	2.7	1.8	0.5	0.0
		*		*	*						
6th and 7th child	0.8		0.0	*	*	0.2	0.9	1.5	1.3	0.5	0.0
8th child and over	0.2	*	*	*	*	0.0	0.1	0.3	0.5	0.3	0.0
Black	71.0	2.9	85.4	56.8	126.9	141.9	101.8	64.7	30.5	6.7	0.3
1st child	27.0	2.8	62.1	48.4	82.1	52.5	25.7	14.3	5.5	1.1	0.1
2d child	21.1	0.1	18.4	7.6	34.1	47.9	32.9	20.1	8.6	1.6	0.1
3d child	12.3	*	4.1	0.8	8.9	26.2	22.4	14.5	7.1	1.5	0.1
4th child	5.7	*	0.6	0.0	1.5	10.5	11.3	7.5	4.1	1.0	0.0
5th child	2.6	*	0.1	*	0.2	3.4	5.3	3.8	2.3	0.6	0.0
6th and 7th child	1.7	*	0.0	*	0.0	1.2	3.5	3.2	2.0	0.6	0.0
		*	0.0 *	*	V.U *						
8th child and over	0.6					0.1	0.7	1.2	1.0	0.4	0.0
American Indian ³	70.7	1.6	72.1	44.4	118.4	139.3	102.2	66.3	30.2	6.4	*
1st child	25.0	1.6	55.1	39.3	81.7	50.1	20.3	9.5	3.3	0.5	*
2d child	19.3	*	14.3	4.6	30.5	50.2	29.0	15.1	5.8	0.9	*
3d child	12.6	*	2.3	0.5	5.5	26.9	25.4	14.8	6.4	1.3	*
4th child	6.7	*	0.3	*	0.7	8.6	14.7	11.4	5.1	1.1	*
	3.5	*	0.3	*	0.7		7.4		3.9	0.9	*
5th child				*	*	2.4		6.9			
6th and 7th child	2.8	_	_	_	_	1.0	4.8	6.7	4.0	1.0	_
8th child and over	8.0	*	*	*	*	*	0.7	2.0	1.7	0.7	*
Asian or Pacific Islander	64.0	0.4	23.1	13.8	38.3	68.8	110.4	105.1	52.8	12.0	0.9
1st child	29.4	0.4	18.6	12.2	29.0	41.1	57.8	39.9	14.7	2.9	0.2
2d child	21.4	*	3.5	1.4	7.1	18.7	34.2	41.7	20.6	4.0	0.2
3d child	8.2	*	0.8	0.2	1.7	5.8	11.8	15.2	10.8	2.5	0.1
4th child	2.7	*	0.1	*	0.3	2.1	3.9	4.6	3.6	1.2	0.1
5th child	1.0	*	*	*	*	0.7	1.4	1.7	1.3	0.5	*
6th and 7th child	0.8	*	*	*	*	0.4	1.1	1.3	1.1	0.4	0.1
8th child and over	0.8	*	*	*	*	*	0.2	0.7	0.7	0.4	0.1
our criffu and over	0.4						0.2	0.7	0.7	0.4	0.2

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in numerator. 0.0 Quantity more than zero but less than 0.05.

Rates computed by relating total births, regardless of age of mother, to women aged 15-44 years.

Rates computed by relating births to women aged 45-54 years to women aged 45-49 years.

Includes births to Aleuts and Eskimos.

Table 4. Total fertility rates and birth rates by age of mother: United States, 1970-98, and by age and race of mother: United States, 1980-98

[Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5. Birth rates are live births per 1,000 women in specified group, enumerated as of April 1 for 1970, 1980, and 1990, and estimated as of July 1 for all other years]

						Age of	mother				
Voor and rece	Total			15-19 years							
Year and race	fertility rate	10-14 years	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years ¹
All races ²											
1998	2,058.5	1.0	51.1	30.4	82.0	111.2	115.9	87.4	37.4	7.3	0.4
1997		1.1	52.3	32.1	83.6	110.4	113.8	85.3	36.1	7.1	0.4
1996	2,027.0	1.2	54.4	33.8	86.0	110.4	113.1	83.9	35.3	6.8	0.3
1995		1.3	56.8	36.0	89.1	109.8	112.2	82.5	34.3	6.6	0.3
1994		1.4	58.9	37.6	91.5	111.1	113.9	81.5	33.7	6.4	0.3
1993 1992	2,046.0 2,065.0	1.4 1.4	59.6 60.7	37.8 37.8	92.1 94.5	112.6 114.6	115.5 117.4	80.8 80.2	32.9 32.5	6.1 5.9	0.3 0.3
1991		1.4	62.1	38.7	94.4	115.7	118.2	79.5	32.0	5.5	0.3
1990		1.4	59.9	37.5	88.6	116.5	120.2	80.8	31.7	5.5	0.2
1989		1.4	57.3	36.4	84.2	113.8	117.6	77.4	29.9	5.2	0.2
1988		1.3	53.0	33.6	79.9	110.2	114.4	74.8	28.1	4.8	0.2
1987		1.3	50.6	31.7	78.5	107.9	111.6	72.1	26.3	4.4	0.2
1986 1985		1.3 1.2	50.2 51.0	30.5 31.0	79.6 79.6	107.4 108.3	109.8 111.0	70.1 69.1	24.4 24.0	4.1 4.0	0.2 0.2
1984 ³		1.2	50.6	31.0	77.4	106.8	108.7	67.0	22.9	3.9	0.2
1983 3		1.1	51.4	31.8	77.4	107.8	108.5	64.9	22.0	3.9	0.2
1982 ³		1.1	52.4	32.3	79.4	111.6	111.0	64.1	21.2	3.9	0.2
1981 ³		1.1	52.2	32.0	80.0	112.2	111.5	61.4	20.0	3.8	0.2
1980 3		1.1	53.0	32.5	82.1	115.1	112.9	61.9	19.8	3.9	0.2
1979 ³		1.2 1.2	52.3	32.3	81.3	112.8	111.4	60.3	19.5	3.9	0.2
1978 ³		1.2	51.5 52.8	32.2 33.9	79.8 80.9	109.9 112.9	108.5 111.0	57.8 56.4	19.0 19.2	3.9 4.2	0.2 0.2
1976 ³		1.2	52.8	34.1	80.5	110.3	106.2	53.6	19.0	4.3	0.2
1975 ³		1.3	55.6	36.1	85.0	113.0	108.2	52.3	19.5	4.6	0.3
1974 3	1,835.0	1.2	57.5	37.3	88.7	117.7	111.5	53.8	20.2	4.8	0.3
1973 ³		1.2	59.3	38.5	91.2	119.7	112.2	55.6	22.1	5.4	0.3
1972 ³		1.2	61.7	39.0	96.9	130.2	117.7	59.8	24.8	6.2	0.4
1971 ⁴ 1970 ⁴		1.1 1.2	64.5 68.3	38.2 38.8	105.3 114.7	150.1 167.8	134.1 145.1	67.3 73.3	28.7 31.7	7.1 8.1	0.4 0.5
1970	2,400.0	1.2	00.3	30.0	114.7	107.0	140.1	73.3	31.7	0.1	0.5
White	2.044.0	0.6	45.4	25.0	74.6	407.0	110.1	00 F	27.0	7.0	0.4
1998 1997		0.6 0.7	45.4 46.3	25.9 27.1	74.6 75.9	107.2 106.7	119.1 116.6	90.5 87.8	37.8 36.4	7.2 6.9	0.4 0.4
1996		0.8	48.1	28.4	78.4	100.7	116.1	86.3	35.6	6.7	0.4
1995		0.8	50.1	30.0	81.2	106.3	114.8	84.6	34.5	6.4	0.3
1994		0.8	51.1	30.7	82.1	106.2	115.5	83.2	33.7	6.2	0.3
1993		0.8	51.1	30.3	82.1	106.9	116.6	82.1	32.7	5.9	0.3
1992		0.8	51.8	30.1	83.8	108.2	118.4	81.4	32.2	5.7	0.2
1991 1990		0.8 0.7	52.8 50.8	30.7 29.5	83.5 78.0	109.0 109.8	118.8 120.7	80.5 81.7	31.8 31.5	5.2 5.2	0.2 0.2
1989		0.7	47.9	28.1	72.9	109.8	117.8	78.1	29.7	4.9	0.2
1988		0.6	44.4	26.0	69.6	103.7	114.8	75.4	27.7	4.5	0.2
1987	1,804.5	0.6	42.5	24.6	68.9	102.3	112.3	73.0	25.9	4.1	0.2
1986		0.6	42.3	23.8	70.1	102.7	110.8	70.9	23.9	3.8	0.2
1985		0.6	43.3	24.4	70.4	104.1	112.3	69.9	23.3	3.7	0.2
1984 ³ 1983 ³		0.6 0.6	42.9 43.9	24.3 25.0	68.4 68.8	102.7 103.8	109.8 109.4	67.7 65.3	22.2 21.3	3.6 3.6	0.2 0.2
1982 3	1,767.0	0.6	45.0	25.5	70.8	107.7	111.9	64.0	20.4	3.6	0.2
1981 ³		0.5	44.9	25.4	71.5	108.3	112.3	61.0	19.0	3.4	0.2
1980 ³		0.6	45.4	25.5	73.2	111.1	113.8	61.2	18.8	3.5	0.2
Black											
1998	2,171.0	2.9	85.4	56.8	126.9	141.9	101.8	64.7	30.5	6.7	0.3
1997		3.3	88.2	60.8	130.1	139.0	99.5	64.3	29.7	6.5	0.3
1996		3.6	91.4	64.7	132.5	136.8	98.2	63.3	29.1	6.1	0.3
1995	,	4.2	96.1	69.7	137.1	137.1	98.6	64.0	28.7	6.0	0.3
1994	,	4.6	104.5	76.3	148.3	146.0	104.0	65.8	28.9	5.9	0.3
1993 1992		4.6	108.6 112.4	79.8	151.9	152.6	108.4	67.3 67.5	29.2 28.8	5.9 5.6	0.3 0.2
1991		4.7 4.8	115.5	81.3 84.1	157.9 158.6	158.0 160.9	111.2 113.1	67.5	28.3	5.5	0.2
1990		4.9	112.8	82.3	152.9	160.2	115.5	68.7	28.1	5.5	0.3
1989	2,432.5	5.1	111.5	81.9	151.9	156.8	114.4	66.3	26.7	5.4	0.3
1988		4.9	102.7	75.7	142.7	149.7	108.2	63.1	25.6	5.1	0.3
1987		4.8	97.6	72.1	135.8	142.7	104.3	60.6	24.6	4.8	0.2
1986		4.7 4.5	95.8 95.4	69.3	135.1	137.3	101.1	59.3	23.8	4.8	0.3
1985 1984 ³	2,109.0 2,070.5	4.5 4.4	95.4 94.1	69.3 69.2	132.4 128.1	135.0 132.2	100.2 98.4	57.9 56.7	23.9 23.3	4.6 4.8	0.3 0.2
1983 ³	2,066.0	4.1	93.9	69.6	127.1	131.9	98.4	56.2	23.3	5.1	0.2
1982 ³	2,106.5	4.0	94.3	69.7	128.9	135.4	101.3	57.5	23.3	5.1	0.4
1981 3	2,117.5	4.0	94.5	69.3	131.0	136.5	102.3	57.4	23.1	5.4	0.3
1980 ³	2,176.5	4.3	97.8	72.5	135.1	140.0	103.9	59.9	23.5	5.6	0.3

See footnotes at end of table.

Table 4. Total fertility rates and birth rates by age of mother: United States, 1970-98, and by age and race of mother: United States, 1980-98 --Con.

[Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5. Birth rates are live births per 1,000 women in specified group, enumerated as of April 1 for 1970, 1980, and 1990, and estimated as of July 1 for all other years]

						Age of	mother				
Year and race	Total fertility	10-14		15-19 years		20-24	25-29	30-34	35-39	40-44	45-49
	rate	years	Total	15-17 years	18-19 years	years	years	years	years	years	years ¹
American Indian ⁵											
1998	2,090.5	1.6	72.1	44.4	118.4	139.3	102.2	66.3	30.2	6.4	*
1997	2,047.5	1.7	71.8	45.3	117.6	134.9	100.8	64.2	29.3	6.4	0.4
1996	2,030.0	1.7	73.9	46.4	122.3	133.9	98.5	63.2	28.5	6.3	*
1995	2,033.5	1.8	78.0	47.8	130.7	132.5	98.4	62.2	27.7	6.1	*
1994	2.080.0	1.9	80.8	51.3	130.3	134.2	104.1	61.2	27.5	5.9	0.4
1993	2,141.0	1.4	83.1	53.7	130.7	139.8	107.6	62.8	27.6	5.9	*
1992	2,190.0	1.6	84.4	53.8	132.6	145.5	109.4	63.0	28.0	6.1	*
1991	2,169.0	1.6	85.0	52.7	134.3	144.9	106.9	61.9	27.2	5.9	0.4
1990	2,183.0	1.6	81.1	48.5	129.3	148.7	110.3	61.5	27.5	5.9	*
1989	2,247.0	1.5	82.7	51.6	128.9	152.4	114.2	64.8	27.4	6.4	*
1988	2.153.5	1.7	77.5	49.7	121.1	145.2	110.9	64.5	25.6	5.3	*
1987	2,099.0	1.7	77.2	48.8	122.2	140.0	107.9	63.0	24.4	5.6	*
1986	2,082.0	1.8	78.1	48.7	125.3	138.8	107.9	60.7	23.8	5.3	*
1985	2,128.0	1.7	79.2	47.7	124.1	139.1	107.5	62.6	27.4	6.0	*
1984 ³	2,126.0	1.7	81.5	50.7	124.7	142.4	109.0	60.5	26.3	5.6	*
1983 3	2,180.5	1.9	84.2	55.2	121.4	145.5	113.7	58.9	25.5	6.4	*
1982 ³	2,100.3	1.4	83.5	52.6	127.6	148.1	115.7	60.9	26.9	6.0	*
1981 ³	2,213.0	2.1	78.4	49.7	121.5	141.2	105.6	58.9	25.2	6.6	*
1980 3	2,162.5	1.9	82.2	51.5	129.5	143.7	106.6	61.8	28.1	8.2	*
Asian or Pacific											
Islander				40.0					=	40.0	
1998	1,867.5	0.4	23.1	13.8	38.3	68.8	110.4	105.1	52.8	12.0	0.9
1997	1,925.5	0.5	23.7	14.3	39.3	70.5	113.2	110.3	54.1	11.9	0.9
1996	1,907.5	0.6	24.6	14.9	40.4	70.7	111.2	109.2	52.2	12.2	0.8
1995	1,924.0	0.7	26.1	15.4	43.4	72.4	113.4	106.9	52.4	12.1	0.8
1994	1,943.0	0.7	27.1	16.1	44.1	73.1	118.6	105.2	51.3	11.6	1.0
1993	1,935.5	0.6	27.0	16.0	43.3	73.3	119.9	103.9	50.2	11.3	0.9
1992	1,942.0	0.7	26.6	15.2	43.1	74.6	121.0	103.0	50.6	11.0	0.9
1991	1,956.0	0.8	27.4	16.1	43.1	75.2	123.2	103.3	49.0	11.2	1.1
1990	2,002.5	0.7	26.4	16.0	40.2	79.2	126.3	106.5	49.6	10.7	1.1
1989	1,947.5	0.6	25.6	15.0	40.4	78.8	124.0	102.3	47.0	10.2	1.0
1988	1,983.5	0.6	24.2	13.6	39.6	80.7	128.0	104.4	47.5	10.3	1.0
1987	1,886.0	0.6	22.4	12.6	37.0	79.7	122.7	97.0	44.2	9.5	1.1
1986	1,836.0	0.5	22.8	12.1	38.8	79.2	119.9	92.6	41.9	9.3	1.0
1985	1,885.0	0.4	23.8	12.5	40.8	83.6	123.0	93.6	42.7	8.7	1.2
1984 ³	1,892.0	0.5	24.2	12.6	40.7	86.7	124.3	92.4	40.6	8.7	1.0
1983 3	1,943.5	0.5	26.1	12.9	44.5	94.0	126.2	93.3	39.4	8.2	1.0
1982 3	2,015.5	0.4	29.4	14.0	50.8	98.9	130.9	94.4	39.2	8.8	1.1
1981 ³	1,976.0	0.3	28.5	13.4	49.5	96.4	129.1	93.4	38.0	8.6	0.9
1980 ³	1,953.5	0.3	26.2	12.0	46.2	93.3	127.4	96.0	38.3	8.5	0.7

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in numerator.

1 Bagginning 1997, rates computed by relating births to women aged 45-54 years to women aged 45-49 years.

2 For 1970-91 includes births to races not shown separately.

3 Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

4 Based on a 50-percent sample of births.

Includes births to Aleuts and Eskimos.

Table 5. Fertility rates and birth rates by live-birth order and race of mother: United States, 1980-98

[Rates are live births per 1,000 women aged 15-44 years, enumerated as of April 1 for 1980 and 1990, and estimated as of July 1 for all other years. Figures for live-birth order not stated are distributed]

Voor and roos of mother	Fertility				Live-birth order			
Year and race of mother	rate	1	2	3	4	5	6 and 7	8 and ove
All races ¹								
998	65.6	26.4	21.4	10.8	4.2	1.5	0.9	0.3
997		26.5	21.1	10.6	4.1	1.5	0.9	0.3
996		26.8	21.1	10.5	4.1	1.5	0.9	0.3
995		27.3	21.1	10.5	4.0	1.5	0.9	0.3
		27.5	21.5	10.7	4.2	1.6	1.0	0.3
194								
93		27.5	21.9	11.0	4.3	1.6	1.0	0.3
992		27.8	22.3	11.3	4.4	1.7	1.0	0.3
91		28.3	22.4	11.4	4.5	1.7	1.0	0.3
90		29.0	22.8	11.7	4.5	1.7	1.0	0.3
89		28.4	22.4	11.3	4.3	1.6	0.9	0.3
88		27.6	22.0	10.9	4.1	1.5	0.9	0.3
87		27.2	21.6	10.5	3.9	1.4	0.8	0.3
86		27.2	21.6	10.3	3.8	1.4	0.8	0.3
85	66.3	27.6	22.0	10.4	3.8	1.4	0.8	0.3
84 ²	65.5	27.4	21.7	10.1	3.7	1.4	0.9	0.3
83 ²	65.7	27.8	21.5	10.1	3.7	1.4	0.9	0.3
82 ²	67.3	28.6	22.0	10.2	3.8	1.4	0.9	0.3
81 ²	67.3	29.0	21.6	10.1	3.8	1.5	0.9	0.4
80 ²	68.4	29.5	21.8	10.3	3.9	1.5	1.0	0.4
White								
98	64.6	26.1	21.5	10.7	3.9	1.3	0.8	0.2
97		26.2	21.2	10.4	3.8	1.3	0.8	0.2
96	64.3	26.6	21.2	10.4	3.8	1.3	0.8	0.2
95	64.4	26.9	21.1	10.3	3.8	1.3	0.7	0.2
94		27.0	21.4	10.4	3.8	1.3	0.8	0.2
93		27.0	21.7	10.5	3.9	1.4	0.8	0.2
92		27.3	22.0	10.8	4.0	1.4	0.8	0.2
91		27.8	22.0	10.8	4.0	1.4	0.8	0.2
90		28.4	22.4	11.1	4.0	1.4	0.8	0.2
89		27.6	21.9	10.7	3.8	1.3	0.7	0.2
88		26.8	21.6	10.4	3.6	1.2	0.7	0.2
		26.5		10.4	3.5	1.2	0.7	0.2
87			21.3					
36		26.6	21.3	9.8	3.4	1.2	0.7	0.2
85	64.1	27.0	21.8	9.9	3.4	1.2	0.7	0.2
84 ²	63.2	26.8	21.4	9.6	3.3	1.2	0.7	0.2
83 2	63.4	27.2	21.2	9.5	3.3	1.2	0.7	0.2
32 2	64.8	28.0	21.6	9.6	3.4	1.2	0.7	0.3
31 ²	64.8	28.4	21.1	9.5	3.4	1.2	0.8	0.3
80 ²	65.6	28.8	21.3	9.6	3.4	1.3	0.8	0.3
Black								
98		27.0	21.1	12.3	5.7	2.6	1.7	0.6
97		27.3	20.7	12.1	5.7	2.5	1.8	0.6
96		27.6	20.5	12.0	5.6	2.6	1.8	0.6
95		28.7	20.7	12.0	5.7	2.6	1.8	0.6
94		29.8	22.2	13.1	6.3	2.9	2.0	0.6
93		30.2	23.4	14.1	6.9	3.1	2.2	0.7
92		30.6	24.3	15.0	7.2	3.3	2.2	0.6
91		31.5	25.0	15.4	7.4	3.3	2.1	0.6
90	86.8	32.4	25.6	15.6	7.4	3.2	2.0	0.6
9	86.2	32.9	25.4	15.3	7.1	3.0	1.9	0.6
38		31.8	24.6	14.4	6.6	2.8	1.8	0.5
37		31.2	23.8	13.9	6.3	2.7	1.7	0.5
36		31.0	23.4	13.5	6.1	2.6	1.7	0.5
85		31.0	23.4	13.4	6.1	2.6	1.7	0.5
34 ²		30.9	23.4	13.4	6.0	2.6	1.7	0.6
33 ²	78.7	31.1	23.1	13.2	6.1	2.7	1.8	0.6
32 ²	80.9	31.7	23.9	13.8	6.3	2.7	1.8	0.7
31 ² 30 ²		32.3	24.2	13.7	6.3	2.8	1.9	0.8
	. 84.9	33.7	24.7	14.0	6.5	2.9	2.1	0.9

Includes races other than white and black.
 Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States: see Technical notes.

Table 6. Live births, birth rates, and fertility rates by Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1989-98

				Hispa	anic				Non-Hispanic	
Measure and year	All origins ¹	Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ²	White	Black
Number										
1998	3.941.553	734.661	516.011	57.349	13.226	98.226	49.849	3.158.975	2.361.462	593.127
1997		709.767	499.024	55.450	12,887	97,405	45.001	3,115,174	2,333,363	581,431
1996	3,891,494	703,707	489,666	54,863	12,613	97,888	46,309	3,113,174	2,358,989	578,099
1995	3,899,589	679,768	469,615	54,824	12,473	94,996	47,860	3,160,495	2,382,638	587,781
1994		665,026	454,536	57,240	11,889	93,485	47,876	3,245,115	2,438,855	619,198
1993	4,000,240	654,418	443,733	58,102	11,916	92,371	48,296	3,295,345	2,472,031	641,273
1992 ³	4,049,024	643,271	432,047	59,569	11,472	89,031	51,152	3,365,862	2,527,207	657,450
1991 ³		623,085	411,233	59,833	11,058	86,908	54,053	3,434,464	2,589,878	666,758
1990 4	4,092,994	595,073	385,640	58,807	11,311	83,008	56,307	3,457,417	2,626,500	661,701
1989 ⁵	3,903,012	532,249	327,233	56,229	10,842	72,443	65,502	3,297,493	2,526,367	611,269
Birth rate ⁶										
1998	14.6	24.3	26.4	19.0	10.0	⁷ 23.2		13.4	12.3	18.2
1997	14.5	24.2	26.8	18.1	10.1	⁷ 22.4		13.3	12.2	18.1
1996	14.7	24.8	27.4	17.9	10.7	⁷ 23.4		13.5	12.4	18.3
1995	14.8	25.2	26.9	19.7	11.0	⁷ 25.3		13.7	12.6	18.8
1994	15.2	25.5	27.0	21.4	10.8	⁷ 25.7		14.0	12.8	20.0
1993	15.5	26.0	27.4	21.9	10.5	⁷ 26.9		14.4	13.1	21.1
1992 ⁸	15.9	26.5	27.8	23.2	10.1	⁷ 27.9		14.8	13.5	21.9
1991 8	16.3	26.7	29.2	21.0	10.1	⁷ 26.5		15.2	13.9	22.5
1990 4	16.7	26.7	28.7	21.6	10.9	⁷ 27.5		15.7	14.4	23.0
1989 ⁵	16.3	26.2	25.7	23.7	10.0	⁷ 28.3		15.4	14.2	22.8
Fertility rate 9										
1998	65.6	101.1	112.1	75.5	50.1	⁷ 90.2		60.7	57.7	73.0
1997	65.0	102.8	116.6	71.7	57.4	⁷ 87.6		60.1	57.0	72.4
1996	65.3	104.9	119.3	71.3	58.9	⁷ 90.2		60.3	57.3	72.5
1995	65.6	105.0	117.0	75.7	55.1	⁷ 94.5		60.8	57.6	74.5
1994	66.7	105.6	115.4	81.9	55.9	_ ⁷ 97.7		62.0	58.3	79.0
1993	67.6	106.9	114.8	82.5	55.5	⁷ 105.0		63.1	59.0	82.7
1992 8	68.9	108.6	116.0	89.9	50.3	⁷ <u>1</u> 07.0		64.4	60.2	85.5
1991 8	69.6	108.1	121.6	80.9	49.1	⁷ 99.3		65.4	61.0	87.6
1990 4	71.0	107.7	118.9	82.9	52.6	⁷ 102.7		67.1	62.8	89.0
1989 ⁵	69.2	104.9	106.6	86.6	49.8	⁷ 95.8		65.7	60.5	84.8

Includes origin not stated.
Includes races other than white and black.
Excludes data for New Hampshire, which did not report Hispanic origin.
Excludes data for New Hampshire and Oklahoma, which did not report Hispanic origin.
Excludes data for Louisiana, New Hampshire, and Oklahoma, which did not report Hispanic origin.
Excludes data for Louisiana, New Hampshire, and Oklahoma, which did not report Hispanic origin.
Live births per 1,000 population in specified group.
Includes Central and South American and other and unknown Hispanic.
Rates are estimated for the United States based on birth data for 49 States and the District of Columbia. Births for New Hampshire that did not report Hispanic origin, are included in the rates for non-Hispanic women; see Technical notes.

Live births per 1,000 women aged 15-44 years in specified group.

See Technical notes. NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 7. Live births by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1998

[Live-birth order refers to number of children born alive to mother. Includes births with stated origin of mother only]

							Ą	ge of moth	er						
Live-birth order and origin of mother	All ages	Under			15-19	/ears			20-24	25-29	30-34	35-39	40-44	45-49	50-54
ongin of mouner	ayes	15 years	Total	15 years	16 years	17 years	18 years	19 years	years	years	years	years	years	years	years
Hispanic														_	
Total	734,661	2,716	121,388	7,525	16,079	24,630	33,400	39,754	223,113	196,012	125,702	54,195	11,056	475	4
1st child	272,024	2,628	91,153	7,102	14,324	20,057	24,322	25,348	94,514	50,908	23,468	7,913	1,380	59	1
2d child3d child	223,025 134,336	46 4	23,938 4,342	341 5	1,453 92	3,801 425	7,323 1,242	11,020 2,578	79,771 33,879	67,671 46.506	36,511 33,577	13,002 13,564	2,002 2,379	83 85	1
4th child	59,119	-	522	2	3	39	121	357	9,829	19.619	18,028	9,207	1,840	74	_
5th child	23,341	-	57	-	1	-	8	48	2,415	6,612	7,853	5,017	1,335	52	-
6th child	9,289	-	11	-	2	-	1	8	544	2,224	3,094	2,541	842	32	1
7th child	4,115	-	-	-	-	-	-	-	105	748	1,392	1,352	490	27	1
8th child and over	3,471	- 20	1 264	- 75	204	200	1	205	58	407	957	1,275	711	62 1	-
Not stated	5,941	38	1,364	75	204	308	382	395	1,998	1,317	822	324	77		-
Mexican	516,011	1,974	88,484	5,510	11,798	18,028	24,320	28,828	163,691	139,091	82,140	33,484	6,850	295	2
1st child2d child	185,738 153,762	1,907 35	65,970 17,835	5,192 258	10,494 1,060	14,591 2,869	17,540 5,463	18,153 8,185	67,674 59,341	32,866 47,483	12,650 21,456	3,971 6,616	672 958	28 37	- 1
3d child	96,818	35 4	3,195	258 4	73	302	5,463 921	1,895	25,524	35,000	23,439	8,272	1,347	37	- '
4th child	44,289	-	383	1	2	302	98	252	7,307	15,099	13,702	6,535	1,211	52	-
5th child	17,892	-	39		1	-	6	32	1,807	5,145	6,095	3,796	969	41	-
6th child	7,179	-	8	-	2	-	1	5	394	1,693	2,405	1,977	679	22	1
7th child	3,212	-	-	-	-	-	-	-	79	551	1,092	1,071	396	23	-
8th child and over	2,698	-	1		-	-	1	-	43	298	708	1,024	569	55	-
Not stated	4,423	28	1,053	55	166	236	290	306	1,522	956	593	222	49	-	-
Puerto Rican	57,349	267	12,286	813	1,639	2,567	3,391	3,876	17,930	13,643	8,801	3,662	724	35	1
1st child	22,526	258	9,032	766	1,438	2,061	2,412	2,355	6,847	3,597	2,019	646	120	6	1
2d child	17,443	4	2,483	34	168	409	776	1,096	6,303	4,572	2,814	1,085	173	9 10	-
3d child4th child	9,715 4,151	-	529 75	1	13 1	57 6	143 10	316 57	3,076 1,045	3,022 1,417	2,016 1,012	881 505	181 92	5	
5th child	1,619	_	3		-	-	10	2	305	549	447	249	65	1	_
6th child	639	-	1	_	-	_		1	85	191	202	130	29	1	_
7th child	307	-	-	-	-	-	-	-	16	93	106	73	19	-	-
8th child and over	280	-	-	-	-	-	-	-	6	51	106	75	39	3	-
Not stated	669	5	163	12	19	34	49	49	247	151	79	18	6	-	-
Cuban	13,226	25	886	58	128	174	229	297	2,536	3,761	3,771	1,926	307	13	1
1st child	5,739	25	727	57	113	147	197	213	1,497	1,792	1,212	420	63	3	-
2d child	4,794	-	142	1	14	24	31	72	778	1,402	1,612	760	96	4	-
3d child	1,920	-	13	-	-	3	1	9	199	446	686	494	78	4	-
4th child	517 131	-	1	-	-	-	-	1	44	79	181	166 42	46	-	-
5th child6th child	58	-	!		-			!	12 2	18 13	45 18	20	13 5		
7th child	19	_	_	_	_	_	_	_	-	13	4	7	5	1	1
8th child and over	22	_	-	-	-	-	-	-	1	3	7	10	1	-	-
Not stated	26	-	2	-	1	-	-	1	3	7	6	7	-	1	-
Central and South American	98,226	185	9,911	472	1,127	1,793	2,845	3,674	24,430	27,200	22,627	11,361	2,411	101	-
1st child	37,714	182	7,917	457	1,039	1,538	2,253	2,630	12,480	9,059	5,539	2,131	390	16	-
2d child	31,603	2	1,670	14	86	218	501	851	8,129	9,894	7,907	3,390	587	24	-
3d child	17,613	-	256	-	1	26	71	158	2,809	5,461	5,469	2,997	596	25	-
4th child5th child	6,832 2,463	-	19 2	-	-	-	4	15 2	733 133	1,895 535	2,272 850	1,519 707	380 226	14 10	-
6th child	912	-	1	-	_	_	_	1	28	164	311	303	98	7	-
7th child	375	-	-	-	-	-	-	-	7	55	118	143	50	2	-
8th child and over	304	-	-	-	-	-	-	-	4	28	79	118	72	3	-
Not stated	410	1	46	1	1	11	16	17	107	109	82	53	12	-	-
Other and unknown Hispanic	49,849	265	9,821	672	1,387	2,068	2,615	3,079	14,526	12,317	8,363	3,762	764	31	-
1st child	20,307	256	7,507	630	1,240	1,720	1,920	1,997	6,016	3,594	2,048	745	135	6	-
2d child	15,423	5	1,808	34	125	281	552	816	5,220	4,320	2,722	1,151	188	9	-
3d child	8,270	-	349	1	5	37	106	200	2,271	2,577	1,967	920	177	9	-
4th child	3,330	-	44	-	-	3	9	32	700	1,129	861	482	111	3	-
5th child	1,236	-	12	-	-	-	1	11	158	365	416	223	62	-	-
6th child	501	-	1	-	-	-	-	1	35	163	158	111	31	2	-
7th child8th child and over	202 167	-	-	-	-	-	-	-	3 4	48 27	72 57	58 48	20 30	1 1	-
Not stated	413	4	100	7	- 17	27	27	22	119	94	62	24	10	-	-
וייטו אמוכע	413	4	100	,	17	21	۷1	22	119	54	02	24	10	-	-

See footnotes at end of table.

Table 7. Live births by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1998 --Con.

[Live-birth order refers to number of children born alive to mother. Includes births with stated origin of mother only]

							Α	ge of moth	er						
Live-birth order and	All	Undor			15-19	years			20-24	25.20	20.24	25.20	40-44	45-49	E0 E4
origin of mother	ages	Under 15 years	Total	15 years	16 years	17 years	18 years	19 years	years	25-29 years	30-34 years	35-39 years	years	years	50-54 years
Non-Hispanic															
Total ¹	3,158,975	6,670	359,028	17,031	38,466	68,001	102,878	132,652	732,440	874,227	750,955	363,941	68,512	3,051	151
1st child		6,484 113 5 - - - - 68	280,707 63,126 10,803 1,425 178 33 2 6 2,748	16,239 633 26 1 - - - 132	35,076 2,880 194 7 3 2	58,064 8,416 886 53 5 2 -	79,757 19,037 2,926 315 40 8 - 2 793	91,571 32,160 6,771 1,049 130 21 2 4 944	339,030 251,593 98,699 28,821 7,565 1,885 441 181 4,225	338,523 304,899 145,336 52,381 18,038 6,673 2,557 1,461 4,359	221,791 280,353 150,855 56,573 20,473 8,843 4,332 3,929 3,806	83,977 122,019 84,439 38,589 15,926 7,619 4,078 5,329 1,965	15,214 19,815 14,199 8,003 4,221 2,348 1,461 2,874 377	745 727 522 318 185 134 104 288 28	45 38 24 9 10 7 2 16
White	2,361,462	2,132	219,169	7,767	20,464	40,388	64,472	86,078	511,101	678,227	603,639	291,202	53,480	2,388	124
1st child	972,642 802,093 374,714 128,132 40,854 15,531 6,936 7,829 12,731	2,092 19 1 - - - 20	178,863 33,820 4,313 400 33 9 - 3 1,728	7,532 174 5 1 - - - 555	19,245 1,002 51 1 - - - 165	36,047 3,689 278 11 3 1 -	52,766 9,958 1,134 83 7 3 - 1 520	63,273 18,997 2,845 304 23 5 - 2 629	252,410 178,567 60,270 13,678 2,632 455 88 53 2,948	275,688 243,149 108,103 34,394 9,578 2,818 858 396 3,243	230,935	68,682 99,142 68,513 30,394 11,661 5,253 2,643 3,373 1,541	12,413 15,841 10,975 6,030 3,072 1,701 1,030 2,129 289	615 585 411 254 140 97 71 193 22	39 35 22 7 9 6 2 4
Black	593,127	4,204	124,076	8,420	16,021	24,542	34,089	41,004	184,263	135,158	90,827	45,096	9,172	323	8
1st child	224,263 174,821 102,228 47,480 21,337 9,773 4,799 4,753 3,673	4,074 86 4 - - - - 40	89,556 26,614 5,964 942 127 21 2 3 847	7,912 424 18 - - - - 66	14,049 1,727 121 4 3 2 - - 115	19,443 4,330 553 36 2 1	23,714 8,252 1,650 215 29 5	24,438 11,881 3,622 687 93 13 2 2 266	67,338 62,010 34,057 13,679 4,475 1,271 300 107 1,026	33,802 43,299 29,634 14,959 7,151 3,204 1,419 889 801	19,888 28,017 20,194 10,458 5,366 2,916 1,634 1,750 604	8,078 12,609 10,316 6,061 3,333 1,842 1,102 1,468 287	1,469 2,127 1,999 1,346 851 496 322 499 63	56 57 59 35 34 23 20 34	2 2 1 3 3 -

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Ouantity zero.
Includes races other than white and black.

Table 8. Fertility rates and birth rates by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1998

[Live-birth order refers to number of children born alive to mother. Figures for live-birth order not stated are distributed]

						Age o	f mother				
Live-birth order and origin of mother	15-44 years ¹	10-14		15-19 years		20-24	25-29	30-34	35-39	40-44	45-49
ongin oi mouter	years ·	years	Total	15-17 years	18-19 years	years	years	years	years	years	years ²
Hispanic											
Total	101.1	2.1	93.6	62.3	140.1	178.4	160.2	98.9	44.9	10.8	0.6
1st child	37.7	2.1	71.1	54.2	96.2	76.2	41.9	18.6	6.6	1.4	0.1
2d child	30.9	0.0	18.7	7.3	35.5	64.3	55.7	28.9	10.8	2.0	0.1
3d child	18.6	*	3.4	0.7	7.4	27.3	38.3	26.6	11.3	2.3	0.1
4th child	8.2	*	0.4	0.1	0.9	7.9	16.1	14.3	7.7	1.8	0.1
5th child	3.2	*	0.0	*	0.1	1.9	5.4	6.2	4.2	1.3	0.1
6th and 7th child	1.9	*	*	*	*	0.5	2.4	3.6	3.2	1.3	0.1
8th child and over	0.5	*	*	*	*	0.0	0.3	0.8	1.1	0.7	0.1
Mexican	112.1	2.2	102.7	67.0	159.1	197.6	173.5	103.7	48.4	10.9	0.6
1st child	40.7	2.2	77.5	58.1	108.0	82.4	41.3	16.1	5.8	1.1	0.1
2d child	33.7	0.0	20.9	8.0	41.3	72.3	59.6	27.3	9.6	1.5	0.1
3d child	21.2	*	3.8	0.7	8.5	31.1	43.9	29.8	12.0	2.2	0.1
4th child	9.7	*	0.5	0.7	1.1	8.9	19.0	17.4	9.5	1.9	0.1
		*		0.1							
5th child	3.9	*	0.0		0.1	2.2	6.5	7.8	5.5	1.6	0.1
6th and 7th child	2.3	*	*		*	0.6	2.8	4.4	4.4	1.7	0.1
8th child and over	0.6	*	*	*	*	0.1	0.4	0.9	1.5	0.9	0.1
Puerto Rican	75.5	1.9	81.2	55.1	120.7	164.2	104.4	67.6	26.7	7.2	0.4
1st child	30.0	1.9	60.5	47.5	80.3	63.6	27.8	15.7	4.7	1.2	*
2d child	23.2	*	16.6	6.8	31.5	58.5	35.4	21.8	7.9	1.7	*
3d child	12.9	*	3.5	0.8	7.7	28.6	23.4	15.6	6.5	1.8	*
4th child	5.5	*	0.5	*	1.1	9.7	11.0	7.8	3.7	0.9	*
5th child	2.2	*	*	*	*	2.8	4.2	3.5	1.8	0.7	*
6th and 7th child	1.3	*	*	*	*	0.9	2.2	2.4	1.5	0.5	*
8th child and over	0.4	*	*	*	*	*	0.4	0.8	0.5	0.4	*
Cuban	50.1	0.8	24.2	15.6	38.8	85.6	95.2	64.5	34.2	7.1	*
1st child	21.8	0.8	19.9	13.8	30.3	50.6	45.4	20.8	7.5	1.5	*
2d child	18.2	*	3.9	1.7	7.6	26.3	35.6	27.6	13.5	2.2	*
	7.3	*	3.9	1.7	7.0						*
3d child					*	6.7	11.3	11.7	8.8	1.8	
4th child	2.0	*				1.5	2.0	3.1	3.0	1.1	
5th child	0.5	*	*	*	*	*	*	0.8	0.7	*	*
6th and 7th child	0.3	*	*	*	*	*	*	0.4	0.5	*	*
8th child and over	0.1	*	*	*	*	*	*	*	*	*	*
Other Hispanic ³	90.2	1.9	80.0	56.7	106.9	137.4	157.2	106.9	46.9	12.9	0.6
1st child	35.6	1.9	63.0	50.4	77.5	65.6	50.6	26.3	9.0	2.1	0.1
2d child	28.8	*	14.2	5.8	24.0	47.3	56.8	36.8	14.2	3.2	0.2
3d child	15.9	*	2.5	0.5	4.7	18.0	32.1	25.8	12.2	3.2	0.2
4th child	*	*	*	*	*	*	*	*	*	*	*
5th child	2.3	*	*	*	*	1.0	3.6	4.4	2.9	1.2	*
6th and 7th child	1.2	*	*	*	*	0.3	1.7	2.3	1.9	0.8	*
8th child and over	0.3	*	*	*	*	*	0.2	0.5	0.5	0.4	*
our crillu ariu over	0.3						0.2	0.5	0.5	0.4	

See footnotes at end of table.

Table 8. Fertility rates and birth rates by age of mother, live-birth order, Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1998 -- Con.

[Live-birth order refers to number of children born alive to mother. Figures for live-birth order not stated are distributed]

						Age of	f mother				
Live-birth order and	15-44	10-14		15-19 years		20-24	25-29	30-34	35-39	40-44	45-49
origin of mother	years ¹	years	Total	15-17 years	18-19 years	years	years	years	years	years	years ²
Non-Hispanic ⁴											
Total ⁵	60.7	0.8	44.3	25.4	72.8	99.9	109.3	85.7	36.5	7.0	0.4
st child	24.8	0.8	34.9	22.7	53.3	46.5	42.5	25.5	8.5	1.6	0.
d child	20.1	0.0	7.9	2.5	15.9	34.5	38.3	32.2	12.3	2.0	0.
d child	9.8	*	1.3	0.2	3.0	13.5	18.2	17.3	8.5	1.5	0.
th child	3.6	*	0.2	0.0	0.4	4.0	6.6	6.5	3.9	0.8	0.
th child	1.3	*	0.0	*	0.1	1.0	2.3	2.3	1.6	0.4	0.
th and 7th child	0.8	*	0.0	*	0.0	0.3	1.2	1.5	1.2	0.4	0.
th child and over	0.3	*	*	*	*	0.0	0.2	0.5	0.5	0.3	0.0
Vhite	57.7	0.3	35.2	18.4	60.6	90.7	109.7	88.0	36.4	6.7	0.4
st child	23.9	0.3	29.0	17.0	47.0	45.0	44.8	26.6	8.6	1.6	0.
d child	19.7	0.0	5.5	1.3	11.7	31.9	39.5	33.8	12.5	2.0	0.
d child	9.2	*	0.7	0.1	1.6	10.8	17.6	17.9	8.6	1.4	0.
th child	3.2	*	0.1	*	0.2	2.5	5.6	6.3	3.8	0.8	0.0
th child	1.0	*	0.0	*	0.0	0.5	1.6	2.0	1.5	0.4	0.
th and 7th child	0.6	*	*	*	*	0.1	0.6	1.1	1.0	0.3	0.0
th child and over	0.2	*	*	*	*	0.0	0.1	0.3	0.4	0.3	0.0
Black	73.0	3.0	88.2	58.8	130.9	146.4	104.6	66.6	31.2	6.8	0.3
st child	27.8	3.0	64.1	50.0	84.5	53.8	26.4	14.7	5.7	1.1	0.
d child	21.7	0.1	19.0	7.8	35.3	49.5	33.7	20.7	8.8	1.6	0.
d child	12.7	*	4.3	0.8	9.3	27.2	23.0	14.9	7.2	1.5	0.
th child	5.9	*	0.7	0.0	1.6	10.9	11.6	7.7	4.2	1.0	0.
th child	2.6	*	0.1	*	0.2	3.6	5.6	4.0	2.3	0.6	0.
th and 7th child	1.8	*	0.0	*	0.0	1.3	3.6	3.4	2.0	0.6	0.
8th child and over	0.6	*	*	*	*	0.1	0.7	1.3	1.0	0.4	0.

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator.

0.0 Quantity more than zero but less than 0.05.

1 Rates computed by relating total births, regardless of age of mother, to women aged 15-44 years.

2 Rates computed by relating births to women aged 45-54 years to women aged 45-49 years.

3 Includes Central and South American and other and unknown Hispanic.

4 Includes origin not stated.

5 Includes races other than white and black.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 9. Total fertility rates, fertility rates, and birth rates by age and Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1989-98

[Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5. Birth rates are live births per 1,000 women in specified group, enumerated as of April 1 for 1990, and estimated as of July 1 for all other years]

							Age of	mother				
Year and origin/race	Total fertility	Fertility			15-19 years							
of mother	rate	rate ¹	10-14 years	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years ²
All origins												
1998	2,058.5	65.6	1.0	51.1	30.4	82.0	111.2	115.9	87.4	37.4	7.3	0.4
1997	2,032.5	65.0	1.1	52.3	32.1	83.6	110.4	113.8	85.3	36.1	7.1	0.4
1996		65.3	1.2	54.4	33.8	86.0	110.4	113.1	83.9	35.3	6.8	0.3
1995		65.6	1.3	56.8	36.0	89.1	109.8	112.2	82.5	34.3	6.6	0.3
1994		66.7	1.4	58.9	37.6	91.5	111.1	113.9	81.5	33.7	6.4	0.3
1993		67.6	1.4	59.6	37.8	92.1	112.6	115.5	80.8	32.9	6.1	0.3
1992 1991		68.9	1.4	60.7 62.1	37.8 38.7	94.5	114.6	117.4	80.2 79.5	32.5 32.0	5.9 5.5	0.3 0.2
1990		69.6 70.9	1.4 1.4	59.9	37.5	94.4 88.6	115.7 116.5	118.2 120.2	80.8	31.7	5.5 5.5	0.2
1989		69.2	1.4	57.3	36.4	84.2	113.8	117.6	77.4	29.9	5.2	0.2
Hispanic												
Total	2 047 5	104.4	2.4	00.6	60.0	140.4	170 4	160.0	00.0	44.0	40.0	0.0
1998	2,947.5 2,999.5	101.1	2.1	93.6	62.3	140.1	178.4	160.2	98.9	44.9 45.0	10.8	0.6
1997 1996		102.8 104.9	2.3 2.6	97.4 101.8	66.3 69.0	144.3 151.1	184.2 189.5	161.7 161.0	97.9 98.1	45.0 45.1	10.8 10.8	0.6 0.6
1995		104.9	2.7	101.8	72.9	157.1	188.5	153.8	95.9	44.9	10.8	0.6
1994		105.6	2.7	100.7	74.0	158.0	188.2	153.2	95.4	44.3	10.7	0.6
1993	3.020.5	106.9	2.7	106.8	71.7	159.1	188.3	154.0	96.4	44.7	10.6	0.6
10023	3 0/13 0	108.6	2.6	107.1	71.4	159.7	190.6	154.4	96.8	45.6	10.9	0.6
1991 ³	3 002 5	108.1	2.4	106.7	70.6	158.5	186.3	152.8	96.1	44.9	10.7	0.6
1990 4	2,959.5	107.7	2.4	100.3	65.9	147.7	181.0	153.0	98.3	45.3	10.9	0.7
1989 5	2,903.5	104.9	2.3	100.8			184.4	146.6	92.1	43.5	10.4	0.6
Mexican												
1998	3,198.0	112.1	2.2	102.7	67.0	159.1	197.6	173.5	103.7	48.4	10.9	0.6
1997		116.6	2.5	112.4	77.3	165.1	204.9	176.3	104.2	49.0	11.6	0.6
1996		119.3	2.8	120.7	83.4	174.3	206.3	176.9	103.7	47.6	12.0	0.7
1995		117.0	2.8	124.6	84.4	185.3	208.9	160.5	98.5	46.8	11.9	0.7
1994		115.4	2.8	116.2	78.0	175.0	202.6	165.2	96.9	46.2	11.7	0.7
1993	3,174.0	114.8	2.6	108.7	71.6	164.9	196.6	168.2	100.5	46.1	11.3	0.8
1992 3	3,196.5	116.0	2.5	108.8	75.0	470.4	202.3	166.3	99.1	47.7	11.8	0.8
1991 3	3,317.5	121.6	2.6	117.3	75.9	178.4	209.9	168.2	103.3	49.1	12.3	0.8
1990 ⁴ 1989 ⁵	3,214.0 2,916.5	118.9 106.6	2.5 2.0	108.0 94.5	69.7 	162.2	200.3 184.3	165.3 153.7	104.4 96.1	49.1 41.0	12.4 11.1	0.8 0.6
Puerto Rican												
1998	2,268.0	75.5	1.9	81.2	55.1	120.7	164.2	104.4	67.6	26.7	7.2	0.4
1997		71.7	1.8	74.9	48.9	120.0	154.0	109.3	59.1	27.0	6.2	0.5
1996		71.3	2.1	82.3	52.2	143.2	148.8	109.4	58.3	25.9	5.6	*
1995	2,245.5	75.7	3.0	89.0	61.2	139.2	151.5	107.2	64.8	27.7	5.6	0.3
1994		81.9	3.2	106.0	72.8	168.4	181.0	111.7	62.3	28.0	5.6	0.2
1993	2,523.5	82.5	3.1	110.0	73.4	181.0	193.1	108.4	56.3	27.1	6.2	0.5
1992 3	2,644.5	89.9	3.5	110.4			204.9	106.6	66.7	30.0	6.5	0.3
1991 3	2,276.0	80.9	2.5	102.7	75.2	143.0	149.4	107.5	61.4	25.7	5.7	0.3
1990 ⁴ 1989 ⁵	2,301.0 2,421.0	82.9 86.6	2.9 3.8	101.6 112.7	71.6 	141.6	150.1 171.0	109.9 98.0	62.8 65.2	26.2 26.9	6.2 6.3	0.5 0.3
	, -											
Cuban 1998	1 560 0	50 1	0.0	24.2	15.6	20.0	95 G	05.2	64.5	24.2	7 1	*
1998	1,560.0 1,814.5	50.1 57.4	0.8 1.0	24.2 38.3	15.6 25.3	38.8 53.4	85.6 82.7	95.2 123.5	64.5 75.7	34.2 35.1	7.1 6.3	0.3
1996	1,774.5	57.4 58.9	0.9	34.0	19.8	54.5	82.7 82.5	110.7	85.9	34.3	6.4	*
1995	1,774.5	55.1	0.9 *	29.2	16.6	51.2	77.0	110.7	88.0	29.8	6.0	*
1994		55.9	0.6	40.2	23.1	77.4	72.5	98.4	87.6	31.3	5.5	*
1993		55.5	*	33.0	20.4	49.7	68.9	102.0	86.9	31.0	4.7	*
1992 3		50.3	1.0	26.3	20.4		51.6	98.4	86.2	28.9	4.7	0.0
1991 ³	1,385.5	49.1	*	27.7	17.5	41.3	61.2	88.8	68.2	26.7	4.0	*
1990 ⁴	1.459.5	52.6	*	30.3	18.2	46.1	64.6	95.4	67.6	28.2	4.9	*
1989 5		49.8	0.5	25.1			64.2		73.7			

See footnotes at end of table.

Table 9. Total fertility rates, fertility rates, and birth rates by age and Hispanic origin of mother, and by race for mothers of non-Hispanic origin: United States, 1989-98 -- Con.

[Total fertility rates are sums of birth rates for 5-year age groups multiplied by 5. Birth rates are live births per 1,000 women in specified group, enumerated as of April 1 for 1990, and estimated as of July 1 for all other years]

							Age of	mother				
Year and origin/race	Total fertilty	Fertility			15-19 years					0.7.00		.=
of mother	rate	rate 1	10-14 years	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years ²
Other Hispanic ⁶												
1998	2,719.0	90.2	1.9	80.0	56.7	106.9	137.4	157.2	106.9	46.9	12.9	0.6
1997		87.6	2.0	72.1	48.3	106.8	146.4	147.9	100.3	45.4	11.8	0.7
1996		90.2	2.4	69.8	46.6	103.1	166.5	146.3	105.3	50.4	11.0	0.7
1995		94.5	2.4	77.5	54.8	107.8	158.3	161.8	103.7	50.9	11.6	0.6
1994		97.7	2.6	87.9	66.4	112.4	162.0	147.4	109.3	49.4	11.9	0.6
1993		105.0	2.7	106.9	78.2	141.7	175.2	147.1	110.4	52.4	12.5	0.5
1992 ³		107.0	2.5	112.1			172.9	157.8	106.6	50.3	12.5	0.5
1991 ³		99.3	2.1	88.1	58.9	128.8	161.1	150.6	101.5	48.2	11.2	0.6
1990 4		102.7	2.1	86.0	57.2	123.8	162.9	155.8	106.9	49.4	11.6	0.7
1989 ⁵		95.8	1.7	66.4			159.2	150.4	85.1	60.3	12.7	0.8
Non-Hispanic ⁷												
Total 8	1 010 5	60.7	0.0	44.0	25.4	70.0	00.0	100.0	05.7	20.5	7.0	0.4
1998	1,919.5 1.888.5	60.7	0.8 0.9	44.3 45.5	25.4 27.0	72.8 74.3	99.9 98.6	109.3 107.0	85.7 83.5	36.5 35.1	7.0 6.7	0.4 0.4
1997 1996		60.1 60.3	1.0	45.5 47.3	27.0	74.3 76.2	98.6 98.4	107.0	83.5 82.0	34.2	6.5	0.4
1995		60.8	1.0	47.3	30.7	79.0	98.5	106.5	80.9	33.2	6.2	0.3
1994		62.0	1.2	52.0	32.5	81.8	100.4	108.6	79.9	32.6	6.0	0.3
1993		63.1	1.2	52.9	33.1	82.6	100.4	110.4	79.0	31.7	5.7	0.3
1992 ³		64.4	1.2	54.4	33.2	85.5	102.3	112.7	78.4	31.7	5.4	0.2
1991 ³		65.4	1.3	56.1	34.4	86.1	106.6	114.0	77.8	30.8	5.1	0.2
1990 4	1,979.5	67.1	1.3	54.8	33.8	81.4	108.1	116.5	79.2	30.7	5.1	0.2
1989 5		65.7	1.3	53.4			107.8	113.4	74.7	28.6	4.8	0.2
White												
1998	1,837.0	57.7	0.3	35.2	18.4	60.6	90.7	109.7	88.0	36.4	6.7	0.4
1997	1,801.0	57.0	0.4	36.0	19.4	61.9	89.8	107.2	85.2	34.9	6.4	0.3
1996		57.3	0.4	37.6	20.6	63.7	90.1	107.0	83.5	34.0	6.2	0.3
1995		57.6	0.4	39.3	22.0	66.1	90.0	106.5	82.0	32.9	5.9	0.3
1994		58.3	0.5	40.4	22.8	67.4	90.9	107.9	80.7	32.1	5.7	0.2
1993	1,792.5	59.0	0.5	40.7	22.7	67.7	92.1	109.2	79.4	31.1	5.3	0.2
1992 3	1,810.5	60.2	0.5	41.7	22.7	69.8	93.9	111.5	78.7	30.5	5.1	0.2
1991 ³	1,826.5	61.0	0.5	43.4	23.6 23.2	70.5	95.7	112.7	77.9	30.2	4.7	0.2
1990 ⁴ 1989 ⁵	1,850.5 1,770.0	62.8 60.5	0.5 0.4	42.5 39.9	23.2	66.6	97.5 94.7	115.3 111.7	79.4 75.0	30.0 27.8	4.7 4.3	0.2 0.2
Black												
1998	2.235.5	73.0	3.0	88.2	58.8	130.9	146.4	104.6	66.6	31.2	6.8	0.3
1997		72.4	3.4	90.8	62.6	134.0	143.0	101.9	65.8	30.3	6.6	0.3
1996		72.5	3.8	94.2	66.6	136.6	140.9	100.8	64.9	29.7	6.2	0.3
1995		74.5	4.3	99.3	72.1	141.9	141.7	102.0	65.9	29.4	6.1	0.3
1994		79.0	4.7	107.7	78.6	152.9	150.3	107.0	67.5	29.5	6.0	0.3
1993	2,454.5	82.7	4.7	112.2	82.5	156.7	157.4	111.5	69.0	29.8	6.0	0.3
1992 3	2,514.0	85.5	4.8	116.0	83.9	162.9	163.0	114.6	69.1	29.4	5.7	0.2
1991 ³	2,551.0	87.6	4.9	118.9	86.7	163.1	166.1	116.3	69.3	28.9	5.6	0.2
1990 4		89.0	5.0	116.2	84.9	157.5	165.1	118.4	70.2	28.7	5.6	0.3
1989 ⁵	2,424.0	84.8	5.2	111.9			156.3	113.8	65.7	26.3	5.3	0.3

Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator. Data not available.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Data not available.

Data not available.

Quantity more than zero but less that 0.05.

Rates computed by relating total births, regardless of age of mother, to women 15-44 years.

Beginning 1997, rates computed by relating births to women aged 45-54 years to women aged 45-49 years.

Excludes data for New Hampshire, which did not report Hispanic origin.

Excludes data for New Hampshire and Oklahoma, which did not report Hispanic origin.

Excludes data for Louisiana, New Hampshire, and Oklahoma, which did not report Hispanic origin.

Includes Central and South American and other and unknown Hispanic.

⁷ Includes origin not stated. 8 Includes races other than white and black.

Table 10. Number of births, birth rates, fertility rates, total fertility rates, and birth rates for teenagers 15-19 years by age of mother: United States, each State and territory, 1998

[By place of residence. Birth rates per 1,000 estimated population in each area; fertility rates per 1,000 women aged 15-44 years estimated in each area; total fertility rates are sums of birth rates for 5-year age groups multiplied by 5: birth rates by age are live births per 1,000 women in specified age group estimated in each area]

						Teenage birth rat	е
						15-19 years	
State	Number of births	Birth rate	Fertility rate	Total fertility rate	Total	15-17 years	18-19 years
United States ¹	3,941,553	14.6	65.6	2,058.5	51.1	30.4	82.0
Alabama	62,074	14.3	63.2	1,958.0	65.5	40.7	100.4
Alaska	9,926	16.2	73.1	2,413.0	42.4	24.8	68.6
Arizona	78,243	16.8	78.2	2,442.5	70.5	45.2	108.2
Arkansas	36,865	14.5	67.5	2,086.5	70.8	41.4	114.0
California	521,661	16.0	70.7	2,184.5	53.5	33.4	83.4
Colorado	59,577	15.0	67.2	2,166.5	48.7	29.0	79.0
Connecticut	43,820	13.4	61.3	1,902.0	35.8	21.4	58.6
Delaware	10,578	14.2	61.2	1,913.0	53.9	33.9	81.7
District of Columbia	7,686	14.7	60.8	1,936.5	86.7	65.5	110.8
Florida	195,637	13.1	65.1	2,080.0	55.5	33.3	90.8
Georgia	122,368	16.0	67.2	2,102.0	65.4	40.3	102.5
Hawaii	17,583	14.7	69.6	2,238.0	45.7	29.5	67.3
daho	19,391	15.8	72.3	2,276.0	44.8	24.5	73.1
Ilinois	182,588	15.2	68.3	2,137.5	53.2	32.7	85.0
ndiana	85,122	14.4	64.3	2,020.0	53.3	28.9	89.5
owa	37,282	13.0	61.4	1,957.5	35.2	18.6	60.3
Kansas	38,422	14.6	67.1	2,134.0	47.0	24.8	81.1
Kentucky	54,329	13.8	61.6	1,924.0	57.0	31.5	94.2
_ouisiana	66,888	15.3	66.7	2,055.5	65.4	40.4	100.6
Maine	13,733	11.0	49.7	1,613.5	30.4	14.9	54.5
Maryland	71,972	14.0	60.1	1,891.0	43.1	26.4	69.2
Massachusetts	81,411	13.2	58.5	1,743.0	30.8	18.2	49.5
Michigan	133,666	13.6	60.4	1,906.0	42.6	23.9	70.9
Minnesota	65,202	13.8	61.8	1,976.0	30.6	16.5	52.7
Mississippi	42,939	15.6	68.3	2,056.0	73.0	47.2	110.3
Missouri	75,358	13.9	62.9	2,003.5	51.2	28.6	85.7
Montana	10,795	12.3	59.0	1,948.5	37.1	19.8	63.3
Nebraska	23,534	14.2	65.2	2,081.0	37.0	20.5	61.6
Nevada New Hampshire	28,699 14,429	16.4 12.2	77.9 52.3	2,510.0 1,650.0	65.7 27.1	38.2 13.1	109.5 50.0
	,						
New Jersey	114,550	14.1	64.3	2,006.0	34.6	20.2	56.9
New Mexico	27,318	15.7	72.2	2,302.0	69.0	44.2 22.4	107.5
New York North Carolina	258,207 111,688	14.2 14.8	63.9 66.6	1,963.5 2,090.5	38.5 61.0	36.2	62.4 98.5
North Dakota	7,932	12.4	58.3	1,846.0	30.4	16.1	52.5
Ohio	152,794	13.6	61.2	1,932.0	48.1	26.7	80.3
Oklahoma	49,461	14.8	69.0	2,160.5	61.6	35.0	102.6
Oregon	45,273	13.8	64.7	2.081.0	47.4	26.3	80.0
Pennsylvania	145,899	12.2	56.9	1.804.0	36.9	21.8	60.2
Rhode Island	12,599	12.7	57.5	1,773.0	41.0	24.4	65.8
South Carolina	53,877	14.0	61.3	1,897.5	60.4	39.6	89.8
South Dakota	10,288	13.9	65.1	2,091.0	38.5	19.6	66.0
Fennessee	77,396	14.3	63.1	1,991.5	64.3	37.7	103.4
Texas	342,283	17.3	76.2	2,377.5	70.9	45.2	109.3
Jtah	45,165	21.5	91.4	2,712.0	40.9	22.2	65.6
/ermont	6,582	11.1	49.1	1,569.5	24.4	11.4	44.6
/irginia	94,351	13.9	59.1	1,825.5	43.5	24.3	70.7
Vashington	79,663	14.0	62.3	1,993.5	41.7	23.2	69.6
Vest Virginia	20,747	11.5	53.7	1,660.5	49.2	26.2	81.5
Visconsin	67,450 6,252	12.9 13.0	58.5 60.9	1,862.5 1,956.0	34.8	19.6 22.8	58.1 86.5
Wyoming	0,232	13.0	00.9	1,930.0	47.8	22.0	86.5
Puerto Rico	60,412	15.7	66.8	1,906.5	74.3	54.4	102.3
Virgin Islands	1,800	15.2	61.4	2,122.5	62.0	40.1	94.5
Guam	4,318	29.0	139.0	4,166.5	104.8	60.4	176.1
American Samoa	1,688	27.2	124.6	3,718.5	43.9	17.3	86.4
Northern Marianas	1,462	21.9	65.0	1,792.5	65.5	50.4	83.7

¹ Excludes data for the territories.

[By place of residence]

Table 11. Live births by race of mother: United States, each State and territory, 1998

_			Number		
State	All races	White	Black	American Indian ¹	Asian or Pacific Islander
United States ²	3,941,553	3,118,727	609,902	40,272	172,65
Alabama	62,074	41,522	20,033	144	37
Alaska	9,926	6,628	401	2,407	49
Arizona	78,243	68,265	2,653	5,555	1,77
Arkansas	36,865	28,296	7,979	218	37
California	521,661	424,659	36,745	3,373	56,88
Colorado	59,577	54,323	2,870	651	1,73
Connecticut	43,820	36,837	5,461	112	1,41
Delaware	10,578	7,700	2,621	35	22
District of Columbia	7,686	2,043	5,469	8	16
lorida	195,637	146,219	44,387	910	4,12
Georgia	122,368	78,195	41,247	240	2,68
ławaii	17,583	4,176	560	187	12,66
daho	19,391	18,773	82	315	2:
linois	182,588	140,002	35,699	259	6,6
ndiana	85,122	74,646	9,262	112	1,1
owa	37,282	35,229	1,094	195	7
ansas	38,422	34,296	2,789	394	9.
Centucky	54,329	48,840	4,862	92	5
ouisiana	66,888	38,128	27,452	325	9
Maine	13,733	13,368	91	104	17
laryland	71,972	44,565	24,040	204	3,1
lassachusetts	81,411	69,494	7,872	138	3,9
lichigan	133,666	105,599	24,264	727	3,0
/linnesota	65,202	57,291	3,664	1,174	3,0
Aississippi	42,939	22,972	19,351	235	3
Asstana	75,358 40,705	62,510	11,399	275	1,1
Montana	10,795	9,467	44	1,177	1
Vebraska	23,534 28,699	21,443 24,359	1,236 2,248	405 450	4: 1,6
levadalevada levada l	14,429	14,073	134	41	1,0
New Jersey	114,550	85,029	21,463	173	7,88
lew Mexico	27,318	23,004	509	3,419	3
lew York	258,207	186,251	54,463	666	16,8
lorth Carolina	111,688	79,335	28,242	1,733	2,3
lorth Dakota	7,932	7,035	87	737	_,-,-
Ohio	152,794	127,289	22,796	293	2,4
Oklahoma	49,461	38,917	4,803	4,866	8
Oregon	45,273	41,610	966	752	1,9
Pennsylvania	145,899	121,436	20,760	368	3,3
Rhode Island	12,599	11,029	967	147	4
South Carolina	53,877	34,169	18,868	146	69
South Dakota	10,288	8,392	85	1,719	
ennessee	77,396	59,308	16,884	127	1,0
exas	342,283	291,817	40,212	773	9,4
Jtah	45,165	42,937	282	669	1,2
/ermont	6,582	6,497	24	16	
'irginia	94,351	67,815	22,016	215	4,3
Vashington	79,663	69,024	3,111	1,828	5,7
Vest Virginia	20,747	19,850	760	12	1:
Visconsin Vyoming	67,450 6,252	58,184 5,881	6,541 54	881 270	1,8
, ,					
Puerto Rico	60,412	55,814	4,581	45	
/irgin Islands	1,800	357	1,396	45	2.0
Guam	4,318	348	46	4	3,9
American Samoa	1,688	10	-	-	1,6
Northern Marianas	1,462	29	-	-	1,4

Quantity zero.
 Data not available.
 Includes births to Aleuts and Eskimos.
 Excludes data for the territories.

Table 12. Live births by Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, each State and territory, 1998

[By place of residence]

						Origin of mot	her				
-	All			Hispa	anic			Λ	on-Hispanic		Not
State	origins	Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ¹	White	Black	stated
United States ²	3,941,553	734,661	516,011	57,349	13,226	98,226	49,849	3,158,975	2,361,462	593,127	47,917
Alabama	62,074	1,345	883	77	22	140	223	60,726	40,203	20,021	3
Alaska	9,926	593	238	47	5	48	255	9,280	6,148	386	53
Arizona	78,243	29,682	28,385	209	40	567	481	47,560	38,621	2,465	1,001
Arkansas	36,865	1,724	1,436	25	2	225	36	35,091	26,545	7,970	50
California	521,661	247,854	215,600	1,956	764	24,847	4,687	270,360	176,886	35,282	3,447
Colorado	59,577	14,654	9,921	184	29	426	4,094	44,902	39,936	2,761	21
Connecticut	43,820	6,224	417	4,170	74	1,249	314	35,273	28,845	4,990	2,323
Delaware	10,578	753	356	265	3	119	10	9,795	6,937	2,604	30
District of Columbia	7,686	730	44	5	2	619	60	6,920	1,314	5,435	36
Florida	195,637	39,540	8,646	7,487	9,240	13,041	1,126	155,920	107,754	43,483	177
Georgia	122,368	8,239	6,319	450	124	1,037	309	113,115	69,495	40,913	1,014
Hawaii	17,583	2,240	428	642	12	74	1,084	15,332	3,529	524	11
daho	19,391	2,428	2,159	21	6	64	178	16,679	16,091	80	284
llinois	182,588	34,780	28,938	2,917	163	1,012	1,750	147,733	105,367	35,481	75
ndiana	85,122	3,770	2,935	301	18	337	179	81,038	70,642	9,222	314
owa Kansas	37,282 38,422	1,739	1,387 3,344	45 83	3 21	189 186	115 334	35,120 34,084	33,188 30,013	1,034 2,759	423 370
Kentucky	54,329	3,968 751	507	84	32	103	25	53,536	48,095	4,845	42
Louisiana	66,888	1,327	480	83	65	135	564	65,401	36,756	27,385	160
Maine	13,733	131	29	21	1	9	71	13,012	12,674	78	590
Maryland	71,972	3,580	616	266	55	1,788	855	67,932	40.893	23,741	460
Vassachusetts	81,411	8,684	351	4,469	68	3,390	406	72,404	62,073	6,322	323
Michigan	133,666	5,945	4,420	467	65	334	659	120,556	92,972	24,007	7,165
Minnesota	65,202	2,967	2,322	82	26	320	217	58,838	51,089	3,594	3,397
Mississippi	42,939	403	195	20	6	27	155	42,479	22,523	19,343	57
Missouri	75,358	1,970	1,439	75	35	224	197	73,333	60,554	11,367	55
Montana	10,795	336	161	16	3	10	146	10,238	8,951	38	221
Nebraska	23,534	2,192	1,729	18	10	243	192	20,829	18,753	1,227	513
Nevada	28,699	8,727	7,086	170	165	640	666	19,768	15,603	2,182	204
New Hampshire	14,429	256	61	74	2	23	96	13,664	13,332	116	509
New Jersey	114,550	20,493	2,707	7,090	887	9,450	359	93,643	66,244	19,424	414
New Mexico	27,318	13,714	4,575	54	41	116	8,928	13,595	9,453	468	9
New York	258,207	52,259	6,660	15,333	454	21,475	8,337	189,966	124,220	48,533	15,982
North Carolina	111,688	8,104	6,011	552	79	1,373	89	103,537	71,294	28,153	47
North Dakota	7,932	152	96	10	2	11	33	7,535	6,707	82	245
Ohio	152,794	3,470	1,674	1,234 111	50 13	315 93	197 729	148,711	123,800	22,286	613 524
Oklahoma Oregon	49,461 45,273	3,616 6,501	2,670 6,049	70	26	253	103	45,321 38,704	35,059 35,138	4,688 949	68
Pennsylvania	145,899	6,897	998	4,670	83	495	651	138.162	114,265	20,272	840
Rhode Island	12,599	1,865	100	630	19	1,015	101	9,117	7,743	828	1,617
South Carolina	53,877	1,307	859	131	28	231	58	52,501	32,885	18,840	69
South Dakota	10,288	153	113	2	1	20	17	10,125	8,252	82	10
Tennessee	77,396	1,997	1,332	150	36	265	214	75,381	57,345	16,853	18
Texas	342,283	151,487	134,880	1,074	316	7,151	8,066	189,650	139,980	39,631	1,146
Utah	45,165	4,879	3,771	94	14	522	478	40,152	37,982	263	134
Vermont	6,582	37	11	9	4	7	6	6,377	6,297	20	168
Virginia	94,351	5,806	1,232	532	60	3,501	481	88,476	62,119	21,913	69
Washington	79,663	10,074	8,256	218	31	313	1,256	67,028	57,214	2,888	2,561
West Virginia	20,747	93	45	8	2	5	33	20,621	19,728	757	33
VisconsinVyoming	67,450 6,252	3,641 584	2,692 448	637 11	17 2	173 16	122 107	63,791 5,664	54,636 5,319	6,490 52	18 4
Puerto Rico	60,412	227	10	220		2.4		1 106	107	1 257	60,407
/irgin Islands	1,800	337	10	230	- 1	34	63	1,406	107	1,257	57
Guam	4,318	44	25	4	1	5	9	4,257	307	45	17
American Samoa Northern Marianas	1,688 1,462										1,688 1,462
NOTHIETH IVIAHAMAS	1,402										1,402

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Quantity zero.
 Data not available.
 Includes races other than white and black.
 Excludes data for the territories.

Table 13. Total number of births, rates, and percent of births with selected demographic characteristics, by specified race of mother and place of birth of mother: United States, 1998

0, , , , ,	All	1477.50	51 1	American			Asian or Pac	cific Islander		
Characteristic	races	White	Black	Indian ¹	Total	Chinese	Japanese	Hawaiian	Filipino	Other
					Num	nber				
Births	3,941,553	3,118,727	609,902	40,272	172,652	28,058	8,893	6,025	31,170	98,506
					Ra	ite				
Birth rate ²	14.6 65.6	14.0 64.6	17.7 71.0	17.1 70.7	16.4 64.0					
Fertility rate ³ Total fertility rate ⁴	2,058.5	2,041.0	2,171.0	2,090.5	1,867.5					
Sex ratio ⁵	1,047	1,049	1,034	1,038	1,061	1,067	1,030	1,044	1,067	1,061
					Perd	cent				
All births										
Births to mothers under 20 years	12.5	11.1	21.5	20.9	5.4	0.9	2.4	18.8	6.2	5.8
4th- and higher-order births	10.5	9.7	14.9	19.5	7.7	2.4	4.3	14.7	7.2	9.2
Births to unmarried mothers	32.8	26.3	69.1	59.3	15.6	6.4	9.7	51.1	19.7	15.2
Mothers completing 12 years or more of school	78.1	78.8	73.1	67.3	87.1	88.6	97.6	81.5	93.1	84.1
Mothers born in the 50 States and	70.1	70.0	73.1	67.3	07.1	00.0	97.0	01.5	93.1	04.1
DC	80.5	82.2	89.1	95.8	16.6	9.8	43.7	97.9	19.4	10.2
Mothers born in the 50 States and DC										
Births to mothers under 20 years	13.6	11.4	23.3	21.4	16.0	3.7	4.7	19.0	17.6	21.0
4th- and higher-order births	9.9	8.7	15.0	19.8	8.1	3.9	5.5	14.8	7.5	6.5
Births to unmarried mothers	33.8	25.3	72.2	60.5	33.8	11.1	15.7	15.7	51.5	39.0
Mothers completing 12 years or										
more of school	82.2	84.5	72.2	67.2	86.5	97.0	96.2	81.4	88.0	81.9
Mothers born outside the 50 States and DC										
Births to mothers under 20 years	8.1	9.6	6.8	9.3	3.2	0.6	0.5	10.5	3.5	4.1
4th- and higher-order births	12.8	14.1	13.3	11.4	7.6	2.2	3.4	6.5	7.1	9.5
Births to unmarried mothers	28.5	31.1	42.7	31.0	11.9	5.8	5.0	31.5	15.1	13.1
Mothers completing 12 years or more of school	61.0	51.7	81.2	70.4	87.1	87.7	98.6	86.8	94.2	84.3

⁻⁻⁻ Data not available.

1 Includes births to Aleuts and Eskimos.

2 Rate per 1,000 population.

3 Rate per 1,000 women aged 15-44 years.

4 Rates are sums of birth rates for 5-year age groups multiplied by 5.

5 Male live births per 1,000 female live births.

Table 14. Total number of births, rates, and percent of births with selected demographic characteristics, by Hispanic origin of mother and by race for mothers of non-Hispanic origin and by place of birth of mother: United States, 1998

				Hispa	anic				Non-Hispanic	
Characteristic	All origins ¹	Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ²	White	Black
					Nu	mber				
Births	3,941,553	734,661	516,011	57,349	13,226	98,226	49,849	3,158,975	2,361,462	593,127
					R	Rate				
Birth rate ³ Fertility rate ⁴ Total fertility rate ⁵	14.6 65.6 2,058.5	24.3 101.1 2,947.5	26.4 112.1 3,198.0	19.0 75.5 2,268.0	10.0 50.1 1,560.0	⁷ 23.2 ⁷ 90.2 ⁷ 2,719.0		13.2 59.8 1,919.5	12.1 56.7 1,837.0	18.1 72.6 2,235.5
Sex ratio ⁶	1,047	1,040	1,037	1,044	1,105	1,042	1,050	1,049	1,052	1,034
					Pe	rcent				
All births										
Births to mothers under 20 years 4th- and higher-order births	12.5 10.5	16.9 13.6	17.5 14.7	21.9 12.3	6.9 5.7	10.3 11.1	20.2 11.0	11.6 9.8	9.4 8.5	21.6 15.0
Births to unmarried mothers Mothers completing 12 years or	32.8	41.6	39.6	59.5	24.8	42.0	45.3	30.9	21.9	69.3
more of school Mothers born in the 50 States and	78.1	50.7	44.8	64.1	87.0	61.5	66.4	84.4	87.2	73.3
DC	80.5	39.9	39.7	63.8	39.7	10.1	73.3	89.9	94.9	90.3
Mothers born in the 50 States and DC										
Births to mothers under 20 years	13.6	25.4	26.4	23.7	12.1	21.8	24.0	12.4	9.7	23.3
4th- and higher-order births	9.9	11.2	11.8	11.1	4.9	5.0	10.8	9.8	8.4	15.1
Births to unmarried mothers Mothers completing 12 years or	33.8	48.0	46.3	61.8	25.5	45.8	47.5	32.4	22.5	72.3
more of school	82.2	64.5	62.7	64.3	86.1	78.4	67.9	84.0	87.0	72.2
Mothers born outside the 50 States and DC										
Births to mothers under 20 years	8.1	11.2	11.6	18.7	3.5	9.0	9.8	3.9	3.5	6.3
4th- and higher-order births	12.8	15.2	16.6	14.5	6.2	11.8	11.5	9.5	9.7	13.7
Births to unmarried mothers Mothers completing 12 years or	28.5	37.2	35.1	55.2	24.4	41.6	37.7	16.6	10.7	40.7
more of school	61.0	41.4	32.7	63.6	87.6	59.5	62.2	87.6	90.2	83.5

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

¹ Includes origin not stated.
Includes races other than white and black.
3 Rate per 1,000 population.
4 Rate per 1,000 women aged 15-44 years.
5 Rates are sums of birth rates for 5-year age groups multiplied by 5.
6 Male live births per 1,000 female live births.
7 Includes Central and South American and other and unknown Hispanic.

Table 15. Live births by race of mother and observed and seasonally adjusted birth and fertility rates, by month: United States, 1998

[Rates on an annual basis per 1,000 population for specified month. Birth rates based on the total population. Fertility rates based on women aged 15-44 years]

		Number		Obs	served	Seasonall	y adjusted ¹
Month	All races ²	White	Black	Birth rate	Fertility rate	Birth rate	Fertility rate
otal	3,941,553	3,118,727	609,902	14.6	65.6		
anuary	319,340	249,256	52,573	14.0	62.7	14.6	65.5
ebruary	298,711	235,123	47,346	14.5	64.9	14.7	66.1
March	329,436	261,164	50,651	14.4	64.6	14.7	65.1
April	319,758	255,541	46,886	14.4	64.8	14.6	65.7
nay	330,519	264,348	48,622	14.4	64.8	14.5	65.1
une	327,091	260,351	49,363	14.7	66.2	14.6	65.4
uly	348,651	276,912	53,193	15.2	68.3	14.5	65.2
rugust	344,736	272,586	53,750	15.0	67.5	14.4	64.9
September	343,384	272,190	52,859	15.4	69.5	14.6	66.0
October	332,790	263,742	50,972	14.5	65.2	14.5	65.5
lovember	313,241	245,744	49,975	14.0	63.4	14.6	65.6
December	333,896	261.770	53.712	14.5	65.4	14.7	66.2

^{...} Category not applicable.

The method of seasonal adjustment, developed by the U.S. Bureau of the Census, is described in *The X11 Variant of the Census Method II Seasonal Adjustment Program,* Technical Paper No. 15 (1967 revision).
 Includes races other than white and black.

Table 16. Live births by day of week and index of occurrence by method of delivery, day of week, and race of mother: United States, 1998

	_	Index of occurrence 1								
Day of week and	Average number		Method of delivery							
race of mother	of births	Total ²	Variant	Cesarean						
			Vaginal 	Total	Primary	Repeat				
All races ³	10,799	100.0	100.0	100.0	100.0	100.0				
Sunday	7,829	72.5	77.6	54.0	63.4	37.9				
Monday	10,997	101.8	100.4	107.1	98.6	121.5				
Tuesday	12,393	114.8	112.7	122.1	118.8	127.9				
Wednesday	12,051	111.6	109.9	117.6	115.3	121.6				
Thursday	11,874	110.0	108.5	115.4	113.7	118.3				
Friday	11,700	108.3	105.4	119.2	114.3	127.5				
Saturday	8,726	80.8	85.4	64.3	75.6	45.1				
White	8,544	100.0	100.0	100.0	100.0	100.0				
Sunday	6,037	70.6	75.9	51.6	61.3	35.4				
Monday	8,754	102.5	100.9	107.9	99.1	122.5				
Tuesday	9,898	115.8	113.8	123.2	120.1	128.5				
Wednesday	9,603	112.4	110.7	118.5	116.3	122.2				
Thursday	9,468	110.8	109.3	116.3	114.4	119.4				
Friday	9,290	108.7	105.6	120.3	115.1	129.1				
Saturday	6,744	78.9	83.6	61.9	73.4	42.6				
Black	1,671	100.0	100.0	100.0	100.0	100.0				
Sunday	1,323	79.1	84.1	62.5	70.9	47.9				
Monday	1,659	99.3	98.0	104.0	96.9	116.5				
Tuesday	1,862	111.5	109.3	118.6	114.2	126.3				
Wednesday	1,819	108.8	107.1	114.5	111.6	119.5				
Thursday	1.784	106.8	105.3	112.1	111.2	113.6				
Friday	1,780	106.5	104.1	114.5	110.9	120.9				
Saturday	1.468	87.8	92.1	73.6	84.1	55.0				

Index is the ratio of the average number of births by a specified method of delivery on a given day of the week to the average daily number of births by a specified method of delivery for the year, multiplied by 100.
 Includes method of delivery not stated.
 Includes races other than white and black.

Table 17. Number, rate, and percent of births to unmarried women by age, race, and Hispanic origin of mother: United States, 1998

	A.11	И	/hite	В	lack	
Measure and age of mother	All races ¹	Total	Non-Hispanic	Total	Non-Hispanic	Hispanic ²
Number						
All ages	1,293,567	821,441	517,153	421,383	410,977	305,442
Inder 15 years	9,137	4,514	2,044	4,270	4,186	2,516
5-19 years	380,868	245,832	157,517	121,458	118,851	88,529
15 years	23,176	13,759	7,080	8,543	8,366	6,742
16 years	49,061	30,952	17,687	16,183	15,811	13,384
17 years	79,320	51,875	32,716	24,542	24,025	19,251
18 years	107,542	70,512	46,769	33,382	32,663	23,736
19 years	121,769	78,734	53,265	38,808	37,986	25,416
0-24 years	460,367	291,677	185,985	151,903	148,401	106,020
5-29 years	243,280	153,310	92,542	79,344	77,193	61,079
0-34 years	124,624	77,883	47,449	40,927	39,611	30,725
5-39 years	61,087	38,905	25,491	19,367	18,755	13,403
0 years and over	14,204	9,320	6,125	4,114	3,980	3,170
Rate per 1,000 unmarried women in specified group						
5-44 years ³	44.3	37.5	27.4	73.3		90.1
5-19 years	41.5	34.0	25.7	83.4		73.9
15-17 years	27.0	21.8	15.3	56.5		53.0
18-19 years	64.5	53.5	42.0	123.5		107.8
0-24 years	72.3	60.5	45.2	131.0		135.0
5-29 years	58.4	50.9	35.4	90.3		136.0
0-34 years	39.1	34.9	24.7	51.7		85.4
5-39 years	19.0	17.0	12.8	24.7		40.1
0-44 years ⁴	4.6	4.0	3.0	6.1		12.0
Percent of births to unmarried women						
All ages	32.8	26.3	21.9	69.1	69.3	41.6
Inder 15 years	96.6	94.0	95.9	99.6	99.6	92.6
5-19 years	78.5	72.2	71.9	95.7	95.8	72.9
15 years	93.5	90.3	91.2	99.3	99.4	89.6
16 years	89.1	84.9	86.4	98.6	98.7	83.2
17 years	84.9	79.9	81.0	97.8	97.9	78.2
18 years	78.2	72.0	72.5	95.7	95.8	71.1
19 years	69.9	62.4	61.9	92.5	92.6	63.9
0-24 years	47.7	39.6	36.4	80.3	80.5	47.5
5-29 years	22.5	17.4	13.6	57.0	57.1	31.2
0-34 years	14.0	10.6	7.9	43.6	43.6	24.4
5-39 years	14.4	11.1	8.8	41.5	41.6	24.7
0 years and over	16.7	13.6	10.9	41.8	41.9	27.5

NOTES: For 48 States and the District of Columbia, marital status is reported on the birth certificate; for Michigan and New York, mother's marital status is inferred; see Technical notes. Rates cannot be computed for unmarried non-Hispanic black women because the necessary populations are not available.

⁻⁻⁻ Data not available.

1 Includes races other than white and black and origin not stated.

2 Includes all persons of Hispanic origin of any race.

3 Rates computed by relating total births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.

4 Rates computed by relating births to unmarried mothers aged 40 years and over to unmarried women aged 40-44 years.

Table 18. Birth rates for unmarried women by age of mother: United States, 1970, 1975, and 1980-98, and by age, race, and Hispanic origin of mother: United States, 1980-98

[Rates are live births to unmarried women per 1,000 unmarried women in specified group, estimated as of July 1]

					Age of Mother	-			
Year and race	45.44		15-19 years			05.00	20.04	25.22	40.44
and Hispanic origin	15-44 years ¹	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years ²
All races ³									
1998 4	44.3	41.5	27.0	64.5	72.3	58.4	39.1	19.0	4.6
1997 ⁴	44.0	42.2	28.2	65.2	71.0	56.2	39.0	19.0	4.6
1996 4	44.8	42.9	29.0	65.9	70.7	56.8	41.1	20.1	4.8
1995 4	45.1	44.4	30.5	67.6	70.3	56.1	39.6	19.5	4.7
1994 4	46.9	46.4	32.0	70.1	72.2	59.0	40.1	19.8	4.7
1993 4	45.3	44.5	30.6	66.9	69.2	57.1	38.5	19.0	4.4
1992 4	45.2	44.6	30.4	67.3	68.5	56.5	37.9	18.8	4.1
1991 4	45.2	44.8	30.9	65.7	68.0	56.5	38.1	18.0	3.8
1990 4	43.8	42.5	29.6	60.7	65.1	56.0	37.6	17.3	3.6
1989 4	41.6	40.1	28.7	56.0	61.2	52.8	34.9	16.0	3.4
1988 4	38.5	36.4	26.4	51.5	56.0	48.5	32.0	15.0	3.2
1987 4	36.0	33.8	24.5	48.9	52.6	44.5	29.6	13.5	2.9
1986 4	34.2	32.3	22.8	48.0	49.3	42.2	27.2	12.2	2.7
1985 4	32.8	31.4	22.4	45.9	46.5	39.9	25.2	11.6	2.5
1984 ^{4, 5}	31.0	30.0	21.9	42.5	43.0	37.1	23.3	10.9	2.5
1983 ^{4, 5}	30.3	29.5	22.0	40.7	41.8	35.5	22.4	10.2	2.6
1982 ^{4, 5}	30.0	28.7	21.5	39.6	41.5	35.1	21.9	10.0	2.7
1981 ^{4, 5}	29.5	27.9	20.9	39.0	41.1	34.5	20.8	9.8	2.6
1980 ^{4, 5}	29.4	27.6	20.6	39.0	40.9	34.0	21.1	9.7	2.6
1980 ^{5, 6}	28.4	27.5	20.7	38.7	39.7	31.4	18.5	8.4	2.3
1975 5, 6	24.5	23.9	19.3	32.5	31.2	27.5	17.9	9.1	2.6
1970 ^{6, 7}	26.4	22.4	17.1	32.9	38.4	37.0	27.1	13.6	3.5
White, total									
1998 4	37.5	34.0	21.8	53.5	60.5	50.9	34.9	17.0	4.0
1997 4	37.0	34.2	22.4	53.6	59.2	49.3	34.4	16.7	3.9
1996 4	37.6	34.5	22.7	54.1	59.0	49.9	36.1	17.8	4.3
1995 4	37.5	35.5	23.6	55.4	58.0	48.7	34.2	16.9	4.2
1994 4	38.3	36.2	24.1	56.4	58.1	49.7	34.2	17.3	4.3
1993 4	35.9	33.6	22.1	52.4	54.2	46.7	32.2	16.4	3.9
1992 4	35.2	33.0	21.6	51.5	52.7	45.4	31.5	16.2	3.6
1991 4	34.6	32.8	21.8	49.6	51.5	44.6	31.1	15.2	3.2
1990 4	32.9	30.6	20.4	44.9	48.2	43.0	29.9	14.5	3.2
1989 4	30.2	28.0	19.3	40.2	43.8	39.1	26.8	13.1	2.9
1988 4	27.4	25.3	17.6	36.8	39.2	35.4	24.2	12.1	2.7
1987 4	25.3	23.2	16.2	34.5	36.6	32.0	22.3	10.7	2.4
1986 4	23.9	21.8	14.9	33.5	34.2	30.5	20.1	9.7	2.2
1985 4	22.5	20.8	14.5	31.2	31.7	28.5	18.4	9.0	2.0
1984 ^{4, 5}	20.6	19.3	13.7	27.9	28.5	25.5	16.8	8.4	2.0
1983 ^{4, 5}	19.8	18.7	13.6	26.4	27.1	23.8	15.9	7.8	2.0
1982 ^{4, 5}	19.3	18.0	13.1	25.3	26.5	23.1	15.3	7.4	2.1
1981 ^{4, 5}	18.6 18.1	17.2 16.5	12.6 12.0	24.6 24.1	25.8 25.1	22.3 21.5	14.2 14.1	7.2 7.1	1.9 1.8
White, non-Hispanic									
1998 ⁴	27.4	25.7	15.3	42.0	45.2	35.4	24.7	12.8	3.0
1997 ⁴	27.4	25.9	15.9	42.3	43.8	34.4	24.5	12.4	2.8
1996 ⁴	28.3	27.0	16.9	43.8	44.5	35.7	26.6	13.9	3.3
1995 ⁴	28.2	27.7	17.6	44.5	43.8	34.9	25.3	13.0	3.2
	20.2		18.0	45.0	43.8	35.0	24.8	12.9	3.1
1994 4	28 5	28.1							
1994 ⁴	28.5	28.1							J. I
1994 ⁴ 1993 ⁴	28.5	28.1							
1994 4									

See footnotes at end of table.

Table 18. Birth rates for unmarried women by age of mother: United States, 1970, 1975, and 1980-98, and by age, race, and Hispanic origin of mother: United States, 1980-98 -- Con.

[Rates are live births to unmarried women per 1,000 unmarried women in specified group, estimated as of July 1]

	Age of Mother											
Year and race	45.44		15-19 years		. 00.04	25.22	20.24	25.20	40.44			
	15-44 years ¹	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years ²			
Black, total												
998 4	73.3	83.4	56.5	123.5	131.0	90.3	51.7	24.7	6.1			
997 ⁴	73.4	86.4	60.6	127.2	127.8	85.2	52.3	24.7	6.5			
996 ⁴	74.4	89.2	64.0	129.2	125.8	84.5	54.5	25.5	6.1			
995 ⁴	75.9	92.8	68.6	131.2	127.7	84.8	54.3	25.6	6.0			
994 ⁴	82.1	100.9	75.1	141.6	138.1	93.6	57.2	26.3	5.9			
993 ⁴	84.0	102.4	76.8	141.6	142.2	94.5	57.3	25.9	5.8			
992 ⁴	86.5	105.9	78.0	147.8	144.3	98.2	57.7	25.8	5.4			
991 ⁴	89.5	108.5	80.4	148.7	147.5	100.9	60.1	25.6	5.4			
990 ⁴	90.5	106.0	78.8	143.7	144.8	105.3	61.5	25.5	5.1			
989 ⁴	90.7	104.5	78.9	140.9	142.4	102.9	60.5	24.9	5.0			
988 ⁴	86.5	96.1	73.5	130.5	133.6	97.2	57.4	24.1	5.0			
987 ⁴	82.6	90.9	69.9	123.0	126.1	91.6	53.1	22.4	4.7			
986 ⁴	79.0	88.5	67.0	121.1	118.0	84.6	50.0	20.6	4.4			
985 ⁴	77.0	87.6	66.8	117.9	113.1	79.3	47.5	20.4	4.3			
984 ^{4, 5}	75.2	86.1	66.5	113.6	107.9	77.8	43.8	19.4	4.3			
983 ^{4, 5}	76.2	85.5	66.8	111.9	107.2	79.7	43.8	19.4	4.8			
982 ^{4, 5}	77.9	85.1	66.3	112.7	109.3	82.7	44.1	19.5	5.2			
981 ^{4, 5}	79.4	85.0	65.9	114.2	110.7	83.1	45.5	19.6	5.6			
980 4, 5	81.1	87.9	68.8	118.2	112.3	81.4	46.7	19.0	5.5			
Hispanic ⁹												
998 ⁴	90.1	73.9	53.0	107.8	135.0	136.0	85.4	40.1	12.0			
997 ⁴	91.4	75.2	55.0	109.5	139.1	135.0	86.1	42.0	12.2			
996 ⁴	93.2	74.5	53.4	110.4	146.5	139.1	90.8	42.3	12.3			
995 ⁴	95.0	78.7	56.3	117.9	148.9	133.8	89.2	43.4	12.2			
994 ⁴	101.2	82.6	59.0	123.6	154.8	141.6	95.5	48.4	14.0			
993 ⁴	95.2	74.6	51.9	114.6	140.5	137.7	90.9	47.8	14.1			
992 ⁴	95.3	72.9	51.0	110.5	142.2	138.3	91.8	48.1	14.5			
991 ⁴	93.7	72.4	50.5	109.6	135.4	137.5	89.1	47.7	14.2			
990 4	89.6	65.9	45.9	98.9	129.8	131.7	88.1	50.8	13.7			

NOTE: Rates cannot be computed for unmarried non-Hispanic black women because the necessary populations are not available.

⁻⁻⁻ Data not available.

1 Rates computed by relating total births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.

Rates computed by relating births to unmarried mothers, regardless of age of mother, to unmarried women aged 15-44 years.

2 Rates computed by relating births to unmarried mothers aged 40 years and over to unmarried women aged 40-44 years.

3 Includes races other than white and black.

4 Data for States in which marital status was not reported have been inferred and included with data from the remaining States; see Technical notes.

5 Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

6 Births to unmarried women are estimated for the United States from data for registration areas in which marital status of mother was reported; see Technical notes.

7 Based on a 50-percent sample of births.

⁸ Rates for 1990 based on data for 48 States and the District of Columbia which reported Hispanic origin on the birth certificate. Rate shown for ages 35-39 years is based on births to unmarried women aged 35-44 years.
9 Includes all persons of Hispanic origin of any race.

Table 19. Number and percent of births to unmarried women by race and Hispanic origin of mother: United States, each State and territory, 1998

[By place of residence]

		Bir	ths to unma	rried wom	en				Percent ι	ınmarried		
		W	nite	Bla	ack			WI	hite	Bla	ack	
State	All races 1	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ²	All races 1	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ²
United States ³	1,293,567	821,441	517,153	421,383	410,977	305,442	32.8	26.3	21.9	69.1	69.3	41.6
Alabama	21,147	7,165	6,870	13,891	13,883	310	34.1	17.3	17.1	69.3	69.3	23.0
Alaska	3,088	1,445	1,308	159	155	171	31.1	21.8	21.3	39.7	40.2	28.8
Arizona	30,011	24,253	9,635	1,670	1,544	14,751	38.4	35.5	24.9	62.9	62.6	49.7
Arkansas	12,911	6,818	6,231	5,937	5,931	587	35.0	24.1	23.5	74.4	74.4	34.0
California	170,866	137,920	37,840	22,760	21,990	100,868	32.8	32.5	21.4	61.9	62.3	40.7
Colorado	15,227	13,080	7,395	1,568	1,499	5,825	25.6	24.1	18.5	54.6	54.3	39.8
Connecticut	13,676	9,563	5,301	3,753	3,441	3,987	31.2	26.0	18.4	68.7	69.0	64.1 48.1
Delaware District of Columbia	3,924 4,834	1,991 477	1,623 108	1,902 4,323	1,896 4,305	362 370	37.1 62.9	25.9 23.3	23.4 8.2	72.6 79.0	72.8 79.2	50.7
Florida	71,626	40,822	27,690	29,792	29,315	13,738	36.6	27.9	25.7	67.1	67.4	34.7
Tionda	71,020	40,022	21,090	29,192	29,313	13,730	30.0	21.5	25.7	07.1	07.4	34.7
Georgia	44,270	16,223	13,529	27,676	27,526	2,664	36.2	20.7	19.5	67.1	67.3	32.3
Hawaii	5,544	648	512	124	112	1,016	31.5	15.5	14.5	22.1	21.4	45.4
Idaho	4,265	3,993	3,152	33	33	779	22.0	21.3	19.6	40.2	41.3	32.1
Illinois	62,211	33,832	20,255	27,802	27,652	13,708	34.1	24.2	19.2	77.9	77.9	39.4
Indiana	28,553	21,223	19,561	7,150	7,126	1,592	33.5	28.4	27.7	77.2	77.3	42.2
lowa	10,155	9,074	8,270	791	746	713	27.2	25.8	24.9	72.3	72.1	41.0
Kansas	10,663	8,384	6,823	1,925	1,903	1,534	27.8	24.4	22.7	69.0	69.0	38.7
Kentucky	16,327	12,736	12,517	3,474	3,465	216	30.1	26.1	26.0	71.5	71.5	28.8
Louisiana	30,041	9,300	8,877	20,378	20,342	423	44.9	24.4	24.2	74.2	74.3	31.9
Maine	4,197	4,051	3,817	45	40	43	30.6	30.3	30.1	49.5	51.3	32.8
Maryland	24,734	9,544	8,153	14,837	14,661	1,355	34.4	21.4	19.9	61.7	61.8	37.8
Massachusetts	21,210	15,887	11,537	4,597	3,710	5,207	26.1	22.9	18.6	58.4	58.7	60.0
Michigan	45,372	26,544	21,758	18,124	17,964	2,496	33.9	25.1	23.4	74.7	74.8	42.0
Minnesota	16,723	12,644	10,964	2,411	2,365	1,418	25.6	22.1	21.5	65.8	65.8	47.8
Mississippi	19,502	4,683	4,557	14,615	14,613	125	45.4	20.4	20.2	75.5	75.5	31.0
Missouri	25,668	16,545	15,817	8,773	8,752	745	34.1	26.5	26.1	77.0	77.0	37.8
Montana	3,230	2,372	2,184	22	20	133	29.9	25.1	24.4	50.0	52.6	39.6
Nebraska	6,168	4,964	3,960	851	847	862	26.2	23.1	21.1	68.9	69.0	39.3
Nevada	10,033	7,905	4,299	1,487	1,449	3,597	35.0	32.5	27.6	66.1	66.4	41.2
New Hampshire	3,482	3,384	3,135	60	53	97	24.1	24.0	23.5	44.8	45.7	37.9
New Jersey	32,369	17,705	8,464	14,128	13,058	10,222	28.3	20.8	12.8	65.8	67.2	49.9
New Mexico	12,033	9,200	2,432	310	277	6,890	44.0	40.0	25.7	60.9	59.2	50.2
New York	90,089	51,174	21,687	36,133	32,048	30,276	34.9	27.5	17.5	66.3	66.0	57.9
North Carolina	36,614	16,535	13,269	18,851	18,810	3,302	32.8	20.8	18.6	66.7	66.8	40.7
North Dakota	2,143	1,573	1,479	25	23	45	27.0	22.4	22.1	28.7	28.0	29.6
Ohio	51,940	34,062	32,416	17,493	17,068	1,703	34.0	26.8	26.2	76.7	76.6	49.1
Oklahoma	16,433	10,607	9,290	3,321	3,247	1,285	33.2	27.3	26.5	69.1	69.3	35.5
Oregon	13,458	12,044	9,575	632	624	2,492	29.7	28.9	27.2	65.4	65.8	38.3
Pennsylvania	47,925	31,222	26,964	16,083	15,727	4,217	32.8	25.7	23.6	77.5	77.6	61.1
Rhode Island	4,269	3,371	1,984	642	555	1,066	33.9	30.6	25.6	66.4	67.0	57.2
South Carolina	20,907	7,538	7,096	13,182	13,168	464	38.8	22.1	21.6	69.9	69.9	35.5
South Dakota	3,296	1,947	1,888	32	32	65	32.0	23.2	22.9	37.6	39.0	42.5
Tennessee	26.999	14,313	13,584	12.455	12,436	749	34.9	24.1	23.7	73.8	73.8	37.5
Texas	107,742	81,188	27,943	25,343	24,945	53,199	31.5	27.8	20.0	63.0	62.9	35.1
Utah	7,740	7,007	5,115	139	133	1,883	17.1	16.3	13.5	49.3	50.6	38.6
Vermont	1,841	1,811	1,739	13	13	7	28.0	27.9	27.6	*	*	*
Virginia	28,124	13,658	11,603	13,995	13,945	2,114	29.8	20.1	18.7	63.6	63.6	36.4
Washington	22,211	18,254	14,018	1,693	1,592	3,859	27.9	26.4	24.5	54.4	55.1	38.3
West Virginia	6,715	6,108	6,067	583	581	30	32.4	30.8	30.8	76.7	76.8	32.3
Wisconsin	19,211	13,016	11,455	5,373	5,332	1,633	28.5	22.4	21.0	82.1	82.2	44.9
Wyoming	1,850	1,638	1,407	27	25	249	29.6	27.9	26.5	50.0	48.1	42.6
Puerto Rico	28,368	25,489		2,872			47.0	45.7		62.7		
Virgin Islands	1,253	205	45	1,037	939	225	69.6	57.4	42.1	74.3	74.7	66.8
Guam	2,341	67	59	11	11	7	54.2	19.3	19.2	*	*	*
American Samoa	578	1		-			34.2	*		*		
Northern Marianas	667	6		-			45.6	*		*		

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.

- Quantity zero.

-- Data not available.

1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Excludes data for the territories.

Table 20. Birth rates by age and race of father: United States, 1980-98

[Rates are live births per 1,000 men in specified group, enumerated as of April 1 for 1980 and 1990 and estimated as of July 1 for all other years. Figures for age of father not stated are distributed]

V	45.54	Age of father											
Year and race of father	15-54 years ¹	15-19 years ²	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55 years and over			
All races ³													
1998	51.0	21.6	84.8	112.6	99.2	53.9	20.9	7.2	2.5	0.3			
1997	50.4	22.2	83.4	108.5	95.7	52.1	20.6	7.1	2.5	0.3			
1996 1995	51.1 52.0	23.0 24.3	84.4 86.0	107.7 107.2	94.3 93.3	51.5 51.0	20.4 20.3	6.9 7.1	2.5 2.6	0.3 0.3			
1994	53.2	25.0	87.3	108.8	93.3	50.9	20.3	7.1	2.6	0.3			
1993	54.4	24.8	87.1	110.8	93.5	51.1	20.2	7.3	2.7	0.4			
1992	55.8	24.6	87.7	113.1	94.2	51.3	20.4	7.3	2.7	0.4			
1991	57.1	24.8	88.0	114.7	95.1 97.8	51.8	20.2	7.5 7.5	2.7 2.8	0.4			
1990 1989	58.4 57.2	23.5 21.9	88.0 85.4	116.4 114.3	94.8	53.0 51.3	21.0 20.4	7.5 7.4	2.7	0.4 0.6			
1988	55.8	19.6	82.4	111.6	93.2	49.9	19.9	7.1	2.7	0.4			
1987	55.0	18.3	80.5	109.9	91.2	48.6	19.0	6.9	2.6	0.4			
1986	54.8	17.9	80.3	109.6	90.3	46.8	18.3	6.7	2.6	0.4			
1985 1984 ⁴	55.6 55.0	18.0 17.8	81.2 80.7	112.3 111.4	91.1 89.9	47.3 46.0	18.1 17.8	6.6 6.3	2.5 2.4	0.4 0.4			
1983 ⁴	55.0	18.2	82.6	113.0	89.1	45.2	17.4	6.4	2.4	0.4			
1982 4	56.4	18.6	86.5	117.3	90.3	44.5	17.5	6.4	2.3	0.4			
1981 4	56.3	18.4	88.4	119.1	88.7	43.3	17.0	6.2	2.3	0.4			
1980 ⁴	57.0	18.8	92.0	123.1	91.0	42.8	17.1	6.1	2.2	0.3			
White													
1998	48.3	18.0	77.5	110.9	99.1	52.5	19.4	6.4	2.2	0.3			
1997	47.7	18.2	76.1	106.8	95.3	50.6	19.1	6.3	2.1	0.3			
1996	48.4 49.2	18.8 19.7	77.2 78.5	106.4 105.7	94.0 92.9	50.2 49.6	19.0 19.0	6.2 6.3	2.1 2.2	0.2 0.2			
1995 1994	50.0	19.8	78.5	106.4	92.5	49.3	18.9	6.3	2.2	0.2			
1993	50.9	19.2	77.9	108.0	92.4	49.2	18.6	6.4	2.2	0.2			
1992	52.2	18.9	78.2	110.1	93.2	49.3	18.8	6.4	2.2	0.3			
1991	53.3	19.1	78.4	111.5	93.6	49.7	18.5	6.5	2.2	0.3			
1990 1989	54.6 53.3	18.1 16.7	78.3 75.9	113.2 110.8	96.1 93.0	50.9 49.1	19.2 18.7	6.5 6.3	2.2 2.1	0.3 0.4			
1988	52.2	14.8	73.7	108.3	91.2	47.6	18.1	6.1	2.1	0.3			
1987	51.6	13.9	72.8	107.0	89.5	46.2	17.3	5.9	2.0	0.3			
1986	51.7	13.8	73.3	107.0	88.7	44.4	16.6	5.7	2.0	0.3			
1985 1984 ⁴	52.6 51.8	14.0 14.0	74.7	109.9 108.8	89.5	44.8 43.5	16.3 16.0	5.6 5.3	1.9 1.9	0.3 0.3			
1983 ⁴	52.0	14.4	74.3 76.3	110.2	87.9 86.8	42.6	15.5	5.3	1.8	0.3			
1982 4	53.1	14.9	80.1	114.2	87.5	41.7	15.6	5.3	1.9	0.3			
1981 4	52.9	15.0	81.7	115.8	85.8	40.3	15.0	5.2	1.8	0.3			
1980 4	53.4	15.4	84.9	119.4	87.8	39.7	15.0	5.1	1.8	0.3			
Black													
1998	68.1	43.3	136.8	134.4	94.3	54.9	26.7	11.9	5.3	1.0			
1997	68.0	45.6	136.6	130.2	91.8	53.3	26.1	11.7	5.5	1.1			
1996	68.3 70.1	47.2 50.5	138.0 140.5	127.2 126.6	89.3 89.6	52.3 52.6	25.7 25.7	11.6 12.1	5.5 5.6	1.1 1.1			
1995 1994	70.1 74.9	50.5 54.6	150.5	126.6	92.9	54.2	25.7 26.4	13.0	6.0	1.1			
1993	78.3	56.6	153.8	136.0	95.3	56.6	27.7	13.5	6.4	1.3			
1992	81.0	57.4	158.0	140.1	96.8	56.9	28.4	13.9	6.2	1.4			
1991	83.4	58.0	158.5	143.3	100.1	58.8	29.4	14.2	6.7	1.4			
1990 1989	84.9 84.1	55.2 52.9	158.2 153.4	144.9 143.5	103.2 101.4	60.4 59.9	31.1 31.1	15.0 14.9	7.1 6.9	1.4 2.7			
1988	80.7	48.1	144.1	137.9	100.0	58.0	30.6	14.3	6.9	1.4			
1987	78.3	44.6	136.1	133.9	97.4	58.0	30.0	13.8	6.6	1.3			
1986	77.2	42.6	131.4	131.6	97.4	58.0	29.1	13.5	6.7	1.3			
1985 1984 ⁴	77.2 76.7	41.8	129.5	132.7	97.3	59.4	29.5	13.3	6.5	1.2			
1983 4	76.7 77.2	40.9 40.7	128.0 129.1	132.2 134.4	98.3 99.0	58.4 59.6	29.3 29.6	13.3 13.5	6.1 6.0	1.2 1.2			
1982 ⁴	79.5	40.3	133.4	141.2	103.6	61.1	29.6	13.9	6.0	1.2			
1981 ⁴	80.4	38.9	138.4	145.6	104.3	61.3	29.7	13.3	5.7	1.2			
1980 ⁴	83.0	40.1	145.3	152.8	109.6	62.0	31.2	13.6	5.9	1.1			

¹ Rates computed by relating total births, regardless of age of father, to men aged 15-54 years.
Rates computed by relating births of fathers under 20 years of age to men aged 15-19 years.
Includes races other than white and black.
Based on 100 percent of births in selected States and on a 50-percent sample of births in all other States; see Technical notes.

Table 21. Live births by educational attainment, and percent of mothers completing 12 years or more and 16 years or more of school, by age and race and Hispanic origin of mother: United States, 1998

	_		Year	s of school com	pleted by moth	er		Percent	Percent
Age and race of mother	Total	0-8 years	9-11 years	12 years	13-15 years	16 years or more	Not Stated	12 years or more	16 years or more
All races ¹									
All ages	3,941,553	220,175	627,981	1,266,102	859,688	907,220	60,387	78.1	23.4
Under 15 years	9,462	7,226	1,930	-	-	-	306	-	-
15-19 years 15 years	484,895 24.777	40,539 7,923	255,263 16,163	157,085	23,469	-	8,539 691	37.9	-
16 years	55,033	7,035	45,555	1,282	-	-	1,161	2.4	-
17 years	93,421	7,293	70,027	14,089	313	-	1,699	15.7	-
18 years	137,567 174,097	8,583 9,705	65,914 57,604	56,645 85,069	4,142 19,014	-	2,283 2,705	44.9 60.7	-
19 years 20-24 years	965,122	59,000	195,708	423,593	222,605	49,613	14,603	73.2	5.2
25-29 years	1,083,010	53,115	101,186	341,622	287,684	284,171	15,232	85.5	26.6
30-34 years	889,365	35,933	48,999	222,470	211,046	358,152	12,765	90.3	40.9
35-39 years40 years and over	424,890 84,809	18,830 5,532	20,678 4,217	102,106 19,226	96,496 18,388	179,773 35,511	7,007 1,935	90.5 88.2	43.0 42.8
•	04,003	3,332	7,217	13,220	10,500	33,311	1,900	00.2	42.0
White, total									
All ages	3,118,727	193,814	459,077	972,793	677,997	772,352	42,694	78.8	25.1
Under 15 years	4,801	3,655	994	-	-	-	152		-
15-19 years 15 years	340,694 15,233	33,532 5,185	175,469 9,630	110,209	15,790	-	5,694 418	37.6	-
16 years	36,439	5,481	29,342	853	_	-	763	2.4	-
17 years	64,951	6,280	47,719	9,583	223	-	1,146	15.4	-
18 years	97,971	7,752	46,719	39,168	2,811	-	1,521	43.5	-
19 years 20-24 years	126,100 736,664	8,834 54,858	42,059 148,106	60,605 318,400	12,756 166,183	38,765	1,846 10,352	59.0 72.1	5.3
25-29 years	880,688	48,475	79,388	270,295	230,804	240,819	10,907	85.3	27.7
30-34 years	737,532	32,038	37,328	178,073	172,422	308,541	9,130	90.5	42.4
35-39 years	349,799	16,579	14,924	81,030	78,124	154,086	5,056	90.9	44.7
40 years and over	68,549	4,677	2,868	14,786	14,674	30,141	1,403	88.8	44.9
White, non-Hispanic									
All ages	2,361,462	41,601	258,189	753,356	575,079	712,350	20,887	87.2	30.4
Under 15 years	2,132	1,724	363	-	-	-	45	-	-
15-19 years	219,169	12,459	110,348	81,760	12,070	-	2,532	43.3	-
15 years 16 years	7,767 20,464	2,560 2,412	5,043 17,187	- 557	-	-	164 308	2.8	-
17 years	40,388	2,430	30,731	6,569	152	-	506	16.9	_
18 years	64,472	2,622	30,311	28,786	2,029	-	724	48.3	-
19 years	86,078	2,435	27,076	45,848	9,889	-	830	65.4	-
20-24 years	511,101 678,227	11,307 8,058	84,569 37,380	241,572 209,180	135,277 196,774	33,964 221,351	4,412 5,484	81.1 93.2	6.7 32.9
25-29 years 30-34 years	603,639	4,793	16,456	142,127	149,392	285,993	4,878	96.5	47.8
35-39 years	291,202	2,484	7,599	66,628	68,699	143,006	2,786	96.5	49.6
40 years and over	55,992	776	1,474	12,089	12,867	28,036	750	95.9	50.8
Black, total									
All ages	609,902	16,426	144,252	234,052	137,671	65,610	11,891	73.1	11.0
Under 15 years	4,289	3,298	852		-	-	139	<u>-</u>	-
15-19 years	126,937	5,922	70,819	41,239	6,634	-	2,323	38.4	-
15 years 16 years	8,599 16,414	2,475 1,322	5,892 14,389	375	-	-	232 328	2.3	-
17 years	25,090	826	19,769	3,972	70	-	453	16.4	-
18 years	34,885	652	16,993	15,485	1,142	-	613	48.5	-
19 years	41,949	647	13,776	21,407	5,422	7 400	697	65.0	-
20-24 years 25-29 years	189,088 139,302	2,523 1,886	41,178 17,136	88,552 53,834	46,265 41,968	7,460 21,789	3,110 2,689	76.5 86.1	4.0 15.9
30-34 years	93,785	1,540	8,881	32,149	27,356	21,691	2,168	88.6	23.7
JU-J - YCais		.,		,		.,			
35-39 years 40 years and over	46,657 9,844	937 320	4,361 1,025	15,182 3,096	12,899 2,549	12,101 2,569	1,177 285	88.4 85.9	26.6 26.9

See footnotes at end of table.

Table 21. Live births by educational attainment, and percent of mothers completing 12 years or more and 16 years or more of school, by age and race of mother: United States, 1998 -- Con.

			Year	s of school com	pleted by moth	er		Percent	Percent	
Age and race of mother	Total	0-8 years	9-11 years	12 years	13-15 years	16 years or more	Not Stated	12 years or more	16 years or more	
Black, non-Hispanic										
,	=== +==	4= 040			404 =0=	0444=	40.500	=0.0		
All ages	593,127	15,218	140,374	228,391	134,525	64,117	10,502	73.3	11.0	
Under 15 years	4,204	3,252	821	-	-	-	131	-		
15-19 years	124,076	5,719	69,264	40,453	6,490	-	2,150	38.5		
15 years	8,420	2,430	5,766	-	-	-	224	-		
16 years	16,021	1,284	14,069	366	-	-	302	2.3		
17 years	24,542	790	19,379	3,887	69	-	417	16.4		
18 years	34,089	618	16,599	15,198	1,115	-	559	48.7		
19 years	41,004	597	13,451	21,002	5,306	-	648	65.2		
20-24 years	184,263	2,243	40,059	86,689	45,175	7,295	2,802	76.7	4.0	
25-29 years	135,158	1,580	16,512	52,377	40,978	21,331	2,380	86.4	16.1	
30-34 years	90,827	1,313	8,515	31,182	26,774	21,184	1,859	89.0	23.8	
35-39 years	45,096	825	4,221	14,677	12,614	11,800	959	88.6	26.7	
40 years and over	9,503	286	982	3,013	2,494	2,507	221	86.3	27.0	
Hispanic ²										
All ages	734,661	152,984	201,439	215,440	98,754	50,546	15,498	50.7	7.0	
Under 15 years	2,716	1,965	658	-	_	-	93	_		
15-19 years	121,388	21,142	65,440	28,406	3,746	-	2,654	27.1		
15 years	7,525	2,636	4,662	-	-, -	-	227	-		
16 years	16,079	3,083	12,293	300	-	-	403	1.9		
17 years	24,630	3,855	17,093	3,062	72	-	548	13.0		
18 years	33,400	5,138	16,406	10,411	787	-	658	34.2		
19 years	39,754	6,430	14,986	14,633	2,887	-	818	45.0		
20-24 years	223,113	43,717	63,536	75,949	30,602	4,576	4,733	50.9	2.1	
25-29 years	196,012	40,628	42,086	59,819	32,604	16,929	3,946	56.9	8.8	
30-34 years	125,702	27,431	20,975	34,858	21,424	18,395	2,619	60.7	14.9	
35-39 years	54,195	14,179	7,344	13,827	8,716	8,962	1,167	59.4	16.9	
40 years and over	11,535	3,922	1,400	2,581	1,662	1,684	286	52.7	15.0	

Quantity zero.
 Includes races other than white and black.
 Includes all persons of Hispanic origin of any race.

Table 22. Number of live births and percent distribution by weight gain of mother during pregnancy and median weight gain, according to period of gestation, race and Hispanic origin of mother: Total of 49 reporting States and the District of Columbia, 1998

					Wei	ght gain du	ring pregna	ancy			
Period of gestation ¹ and race and Hispanic origin of mother	All births	Less than 16 pounds	16-20 pounds	21-25 pounds	26-30 pounds	31-35 pounds	36-40 pounds	41-45 pounds	46 pounds or more	Not stated	Median weight gain in pounds
_						Number					
All gestation periods ² All races ³ White, total White, non-Hispanic Black, total Black, non-Hispanic Hispanic ⁴	3,419,892 2,694,068 2,184,576 573,157 557,845 486,807	354,491 253,864 196,210 85,827 84,284 55,677	336,238 253,423 198,566 66,653 65,085 53,310	440,076 348,561 285,431 69,930 68,039 60,739	576,052 465,053 386,210 84,121 81,938 74,897	441,365 364,338 308,247 57,884 55,963 53,141	400,595 327,116 275,964 57,185 55,533 48,671	213,799 175,901 149,549 29,928 28,913 25,008	373,720 298,892 254,242 62,858 61,001 42,808	283,556 206,920 130,157 58,771 57,089 72,556	
Under 37 weeks All races ³	401,538 284,427 224,932 100,650 98,630 57,708	62,946 39,268 29,822 21,260 20,977 9,229	48,966 33,173 25,814 13,657 13,414 7,192	52,014 37,681 30,596 11,977 11,696 6,923	59,305 43,571 35,505 13,199 12,952 7,852	40,435 30,906 25,633 7,912 7,700 5,096	36,469 27,531 22,788 7,574 7,403 4,612	19,149 14,817 12,436 3,644 3,544 2,307	36,846 27,776 23,499 8,006 7,846 4,116	45,408 29,704 18,839 13,421 13,098 10,381	
37-39 weeks All races ³	1,622,245 1,279,913 1,039,733 266,817 259,796 230,166	163,251 118,355 91,688 37,768 37,097 25,782	162,370 123,042 96,713 31,190 30,445 25,622	217,188 172,202 141,199 33,795 32,919 29,906	283,205 228,694 190,070 40,755 39,699 36,665	213,809 176,009 148,951 28,166 27,240 25,707	190,026 154,523 130,203 27,387 26,605 23,264	99,326 81,340 69,040 14,190 13,746 11,779	167,109 132,978 113,047 28,596 27,743 19,250	125,961 92,770 58,822 24,970 24,302 32,191	
40 weeks and over All races ³	1,383,990 1,122,104 914,798 203,526 197,365 196,895	127,260 95,655 74,310 26,513 25,935 20,497	124,279 96,846 75,794 21,666 21,088 20,383	169,808 138,094 113,221 24,013 23,286 23,727	232,633 192,209 160,194 30,025 29,150 30,252	186,445 157,010 133,355 21,715 20,934 22,235	173,521 144,715 122,700 22,119 21,423 20,720	95,036 79,554 67,934 12,046 11,576 10,869	169,207 137,788 117,438 26,157 25,317 19,344	105,801 80,233 49,852 19,272 18,656 28,868	
					Perce	ent distribut	ion				
All gestation periods ² All races ³ White, total White, non-Hispanic Black, total Black, non-Hispanic Hispanic ⁴	100.0 100.0 100.0 100.0 100.0 100.0	11.3 10.2 9.6 16.7 16.8 13.4	10.7 10.2 9.7 13.0 13.0 12.9	14.0 14.0 13.9 13.6 13.6 14.7	18.4 18.7 18.8 16.4 16.4 18.1	14.1 14.6 15.0 11.3 11.2 12.8	12.8 13.2 13.4 11.1 11.1	6.8 7.1 7.3 5.8 5.8 6.0	11.9 12.0 12.4 12.2 12.2 10.3	 	30.5 30.7 30.8 29.9 29.8 30.0
Under 37 weeks All races ³ White, total White, non-Hispanic Black, total Black, non-Hispanic Hispanic ⁴	100.0 100.0 100.0 100.0 100.0 100.0	17.7 15.4 14.5 24.4 24.5 19.5	13.7 13.0 12.5 15.7 15.7	14.6 14.8 14.8 13.7 13.7	16.7 17.1 17.2 15.1 15.1 16.6	11.4 12.1 12.4 9.1 9.0 10.8	10.2 10.8 11.1 8.7 8.7 9.7	5.4 5.8 6.0 4.2 4.1 4.9	10.3 10.9 11.4 9.2 9.2 8.7	 	27.9 29.0 29.8 25.4 25.4 26.3
37-39 weeks All races ³ White, total White, non-Hispanic Black, total Black, non-Hispanic Hispanic ⁴	100.0 100.0 100.0 100.0 100.0 100.0	10.9 10.0 9.3 15.6 15.8 13.0	10.9 10.4 9.9 12.9 12.9 12.9	14.5 14.5 14.4 14.0 14.0 15.1	18.9 19.3 19.4 16.9 16.9 18.5	14.3 14.8 15.2 11.6 11.6 13.0	12.7 13.0 13.3 11.3 11.3	6.6 6.9 7.0 5.9 5.8 5.9	11.2 11.2 11.5 11.8 11.8 9.7		30.5 30.6 30.7 30.0 30.0 29.9
40 weeks and over All races ³	100.0 100.0 100.0 100.0 100.0 100.0	10.0 9.2 8.6 14.4 14.5 12.2	9.7 9.3 8.8 11.8 11.8	13.3 13.3 13.1 13.0 13.0 14.1	18.2 18.4 18.5 16.3 16.3	14.6 15.1 15.4 11.8 11.7	13.6 13.9 14.2 12.0 12.0	7.4 7.6 7.9 6.5 6.5	13.2 13.2 13.6 14.2 14.2 11.5		30.9 31.0 31.6 30.4 30.4 30.3

NOTE: Excludes data for California, which did not require reporting of weight gain during pregnancy.

Category not applicable.
 Expressed in completed weeks.
 Includes births with period of gestation not stated.
 Includes races other than white and black and origin not stated.
 Includes all persons of Hispanic origin of any race.

Table 23. Percent low birthweight by weight gain of mother during pregnancy, period of gestation, and race and Hispanic origin of mother: Total of 49 reporting States and the District of Columbia, 1998

[Low birthweight is defined as weight of less than 2,500 grams (5 lb 8 oz)]

All gestation periods 2 All races 3 7.8 14.2 10.7 7.9 6.3 5.4 5.1 5.1 5.1 5.4 11.8 White, total 13.3 21.5 16.5 16.5 13.0 19.9 19.8 18.2 7.7 7.3 18.8 Black, non-Hispanic 4 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.8 4.4 4.7 8.7 Mexican 4 12.1 11.2 12.2 18.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and nonthermore hispanic 4 7.8 12.9 10.9 7.8 6.3 5.8 4.8 4.5 4.7 7.5 5.5 18.8 All races 3 7.8 14.2 10.7 7.9 6.3 5.5 4.8 4.6 4.6 5.0 9.9 White, non-Hispanic 5.0 6.6 12.1 9.4 7.0 5.5 4.8 4.5 4.7 7.5 1.0 10.8 Black, non-Hispanic 5.0 6.6 12.1 9.4 7.0 5.5 4.8 4.5 4.7 7.7 3.3 18.8 Black, non-Hispanic 5.0 6.6 12.1 9.4 7.0 10.9 9.2 8.3 7.8 7.4 18.9 Hispanic, total 4 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.4 4.7 8.7 Mexican 4 9.7 17.0 13.1 9.3 8.4 7.3 6.7 5.7 5.8 15.4 Puerto Rican 4 9.7 17.0 13.1 9.3 8.4 7.3 6.7 5.7 5.8 15.4 Cuban 4 6.3 10.1 7.4 6.0 5.1 4.2 4.3 4.4 5.7 4.8 11.0 Central and South American 4 6.5 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Under 37 weeks All races 3 44.0 57.4 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 4.1 9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 52.9 White, total 4.1 9 54.6 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 4.1 9 54.6 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 4.1 9 54.6 49.1 42.5 38.4 36.4 35.2 36.2 38.7 57.7 52.9 White, total 5.0 5.3 6.3 54.0 48.3 43.0 40.6 37.8 38.3 36.1 59.7 Hispanic 4 3.3 5.5 5.7 4.8 3.9 3.1 2.8 2.8 2.8 2.8 2.9 4.3 White, total 3.3 5.5 5.7 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 White, non-Hispanic 5.0 4 6.6 5.6 4.8 3.9 3.1 2.8 2.8 2.8 2.8 2.9 4.3 White, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.5 White, total 3.3 5.5 7.4 8.8 3.9 3.1 2.8 2.8 2.8 2.8 2.9 4.3 White, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 1.1 0.9 0.8 0.8 0.8 0.9 11.5 White, total 3.0 4.6 4.1 3.3 2.8 2.2 2.2 1.1 1.7 1.6 3.7 Black, non-Hispani	Period of gestation ¹					Weight	gain during pr	egnancy			
Mile, total 6.7 11.9 9.2 7.0 5.5 4.8 4.6 4.6 5.0 9.9 White, non-Hispanic 6.6 12.1 9.4 7.0 5.5 4.8 4.5 4.7 5.0 10.6 Black, total 13.1 21.4 16.4 12.9 10.8 9.1 8.2 7.7 7.3 18.8 Black, non-Hispanic 13.3 21.5 16.5 13.0 10.9 9.2 8.3 7.8 7.4 18.9 Hispanic, total 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.4 4.7 8.7 Mexican 4 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.4 4.7 8.7 Mexican 4 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.4 4.7 8.7 Mexican 4 6.3 10.1 7.4 6.0 5.1 4.2 4.3 4.0 4.3 8.0 Puerto Rican 4 9.7 17.0 13.1 9.3 8.4 7.3 6.7 5.7 5.8 15.4 Cuban 4 6.5 11.4 8.8 6.3 5.8 4.3 4.4 5.7 4.8 11.0 Central and South American 4 6.5 11.4 8.8 6.3 5.8 4.3 4.4 5.7 4.8 11.0 Central and South American 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.4 4.7 11.0 Under 37 weeks All races 3 44.0 57.4 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 41.9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 50.2 White, total 41.9 54.6 47.3 41.1 37.4 35.4 36.4 36.2 35.4 35.7 50.2 White, total 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.3 36.1 59.7 Hispanic 4 37.1 47.8 40.8 34.7 32.9 37.9 weeks All races 3 4.2 6.6 5.6 4.5 3.7 3.2 31. 31 3.1 3.2 5.2 Mile, total 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.3 36.1 59.7 Hispanic 4 37.1 47.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 37.9 weeks All races 3 4.2 6.6 5.6 4.5 3.7 3.2 31. 31 3.1 3.2 5.2 White, total 3.6 5.6 4.8 3.9 31.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.4 8.3 9.9 31.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 4.8 3.9 31.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.9 4.5 8.4 Black, total 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 4.3 4.0 4.0 4.0 4.3 3.0 4.0 4.0 4.3 3.0 4.0 4.0 4.3 3.0 4.0 4.0 4.3 3.0 4.0 4.0 4.3 3	and race and Hispanic	Total									
All races 3	All destation periods ²										
White, total 667 111.9 9.2 7.0 5.5 4.8 4.6 4.6 5.0 9.9 White, non-Hispanic 6.6 12.1 9.4 7.0 5.5 4.8 4.5 4.7 5.0 10.6 Black, total 13.1 21.4 16.4 12.9 10.8 9.1 8.2 7.7 7.3 18.8 Black, non-Hispanic 13.3 21.5 16.5 13.0 10.9 9.2 8.3 7.8 7.4 18.9 Hispanic, total 4 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.4 4.7 8.7 Mexican 4 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.4 4.7 8.7 Mexican 4 6.3 10.1 7.4 6.0 5.1 4.2 4.3 4.0 4.3 8.0 Puerto Rican 4 9.7 17.0 13.1 9.3 8.4 7.3 6.7 5.7 5.8 15.4 Cuban 4 6.5 11.4 8.8 6.3 5.8 4.3 4.4 5.7 4.8 11.0 Central and South American 4 6.5 11.4 8.8 6.3 5.8 4.3 4.4 5.7 4.8 11.0 Central and South American 4 6.5 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Under 37 weeks All races 3 44.0 57.4 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 41.9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 50.2 White, total 41.9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 50.2 White, total 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.3 36.1 59.7 Hispanic 4 37.1 47.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 37.3 weeks All races 3 4.2 6.6 5.6 4.5 3.7 3.2 3.1 3.1 3.1 3.2 5.2 White, total 3.6 5.6 4.8 3.9 3.1 2.8 2.8 2.8 2.8 2.9 4.3 White, total 3.6 5.6 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 3.6 5.6 4.9 4.1 4.5 5.7 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 3.6 5.7 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 4.3 4.0 4.0 4.0 4.3 4.0 4.0 4.3 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0											
White, non-Hispanic 6.6 12.1 9.4 7.0 5.5 4.8 4.5 4.7 5.0 10.6	All races 3	7.8	14.2	10.7	7.9	6.3	5.4	5.1	5.1	5.4	11.8
Black, non-Hispanic 13.1 21.4 16.4 12.9 10.8 9.1 8.2 7.7 7.3 18.8 Black, non-Hispanic 13.3 21.5 16.5 13.0 10.9 9.2 8.3 7.8 7.4 18.9 Hispanic, total 4 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.4 4.7 8.7 Mexican 4 6.3 10.1 7.4 6.0 5.1 4.2 4.3 4.0 4.3 8.0 Puerto Rican 4 9.7 17.0 13.1 9.3 8.4 7.3 6.7 5.7 5.8 15.4 Cuban 4 6.4 12.1 11.2 6.3 5.8 4.3 4.4 5.7 4.8 11.0 Central and South American 4 6.5 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Central and South American 4 6.5 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Central and South American 4 4.9 5.7 4.8 11.0 Central and South American 5 4.0 5.7 4.8 11.0 Central and South American 5 4.0 5.7 4.9 11.0 Central and South American 5 4.0 5.0 4.8 4.8 4.7 11.0 Central and South American 6 5.0 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Central and South American 6 5.0 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.8 4.7 11.0 Central and South American 6 5.0 4.9 4.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, non-Hispanic 4 41.9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 50.2 White, non-Hispanic 50.4 63.4 54.1 48.5 43.1 40.7 37.8 38.3 36.1 59.7 Hispanic 4 5.0 4.8 4.8 4.8 4.8 4.8 4.8 4.7 4.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 37.3 weeks All races 3 4.2 6.6 5.6 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 Elack, non-Hispanic 3.5 5.7 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.5 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.5 Elack, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.5 Elack, non-Hispanic 6	White, total	6.7	11.9	9.2	7.0	5.5	4.8	4.6	4.6	5.0	9.9
Black, non-Hispanic 13.3 21.5 16.5 13.0 10.9 9.2 8.3 7.8 7.4 18.9 18.9 18.9 18.0 14.3 18.0 16.5 13.0 10.9 9.2 8.3 7.8 7.4 18.9 18.9 18.9 18.0	White, non-Hispanic	6.6	12.1	9.4	7.0	5.5	4.8		4.7	5.0	10.6
Hispanic, total ⁴ 6.9 11.3 8.6 6.6 5.7 4.8 4.8 4.4 4.7 8.7 Mexican ⁴ 6.3 10.1 7.4 6.0 5.1 4.2 4.3 4.0 4.3 8.0 Puerto Rican ⁴ 9.7 17.0 13.1 9.3 8.4 7.3 6.7 5.7 5.8 15.4 Cuban ⁴ 6.4 12.1 11.2 6.3 5.8 4.3 4.4 5.7 4.8 11.0 Central and South American ⁴ 6.5 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic ⁴ 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Under 37 weeks All races ³ 44.0 57.4 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 4.9 50.3 58.4 36.4 35.2 36.2 36.7 54.5 Black, tonal 50.4 63.4 54.1 48.5 43.1 40.7 37.8 38.5 36.2 59.7 Hispanic ⁴ 37.1 47.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 37-39 weeks All races ³ 4.2 6.6 5.6 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 White, non-Hispanic 3.5 5.7 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, non-Hispanic 3.5 5.7 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, non-Hispanic 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 4.0 4.0 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	Black, total	13.1	21.4	16.4	12.9	10.8	9.1	8.2	7.7	7.3	18.8
Mexican 4 6.3 10.1 7.4 6.0 5.1 4.2 4.3 4.0 4.3 8.0 Puento Rican 4 9.7 17.0 13.1 9.3 8.4 7.3 6.7 5.7 5.8 15.4 Cuban 4 6.4 12.1 11.2 6.3 5.8 4.3 4.4 5.7 4.8 11.0 Central and South American 4 6.5 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Under 37 weeks All races 3 44.0 57.4 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 41.9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 50.2 9.9 44.5 38.4 36.4 36.2		13.3	21.5	16.5	13.0	10.9	9.2	8.3	7.8	7.4	18.9
Puerto Rican 4	Hispanic, total 4	6.9	11.3	8.6	6.6	5.7	4.8	4.8	4.4	4.7	8.7
Puento Rican 4	Mexican ⁴	6.3	10.1	7.4	6.0	5.1	4.2	4.3	4.0	4.3	8.0
Central and South American 4 6.5 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Under 37 weeks All races 3 44.0 57.4 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 41.9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 50.9 White, non-Hispanic 43.1 56.6 49.1 42.5 38.4 36.4 35.2 36.2 36.7 54.5 Black, total 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.3 36.1 59.7 Hispanic 4 37.1 47.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 White, total	Puerto Rican 4	9.7	17.0	13.1	9.3	8.4			5.7	5.8	15.4
Central and South American 4 6.5 11.4 8.8 6.3 5.3 5.0 4.7 4.1 4.9 8.3 Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Under 37 weeks All races 3 44.0 57.4 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 41.9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 50.2 White, non-Hispanic 43.1 56.6 49.1 42.5 38.4 36.4 35.2 36.2 36.7 54.5 Black, total 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.3 36.1 59.7 Black, non-Hispanic 50.4 63.4 54.1 48.5 43.1 40.7 37.8 38.5 36.2 59.7 Hispanic 4 37.39 weeks All races 3 4.2 6.6 5.6 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 37.39 weeks All races 3 4.2 6.6 5.6 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 White, non-Hispanic 3.5 5.7 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.9 4.5 8.4 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Black, non-Hispanic 7.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9.0 9											
Other and unknown Hispanic 4 7.8 12.9 10.9 7.8 6.7 5.0 4.8 4.8 4.7 11.0 Under 37 weeks All races 3 44.0 57.4 49.1 42.7 38.6 36.3 34.9 35.8 35.7 52.9 White, total 41.9 54.6 47.3 41.1 37.4 35.4 34.2 35.4 35.7 50.2 White, total 43.1 56.6 49.1 42.5 38.4 36.4 35.2 36.2 36.7 54.5 Black, total 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.3 36.1 59.7 Hispanic 4 37.1 47.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 37-39 weeks All races 3 4.2 6.6 5.6 4.5 3.7 3.2 3.1 3.1 3.2 5.2 White, total 3.6 5.6 4.8 3.9 3.1 2.8											
All races ³											
White, total	Under 37 weeks										
White, non-Hispanic 43.1 56.6 49.1 42.5 38.4 36.4 35.2 36.2 36.7 54.5 Black, non-Hispanic 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.5 38.2 36.2 59.7 Hispanic 37.1 47.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 37-39 weeks All races 3 4.2 6.6 5.6 4.5 3.7 3.2 3.1 3.1 3.2 5.2 White, total 3.6 5.6 4.8 3.9 3.1 2.8 2.8 2.9 4.3 White, non-Hispanic 3.5 5.7 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 Black, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Hispanic 4.9 9.7 8.5	All races ³	44.0	57.4	49.1	42.7	38.6	36.3	34.9	35.8	35.7	52.9
White, non-Hispanic 43.1 56.6 49.1 42.5 38.4 36.4 35.2 36.2 36.7 54.5 Black, total 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.5 36.2 59.7 Black, non-Hispanic 50.4 63.4 54.1 48.5 43.1 40.7 37.8 38.5 36.2 59.7 Hispanic 4 37.1 47.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 37-39 weeks All races 3 4.2 6.6 5.6 4.5 3.7 3.2 3.1 3.1 3.2 5.2 White, total 3.6 5.6 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 White, total 3.5 5.7 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 Black, non-Hispanic 6.9	White total	41 9	54.6	47.3	41 1	37 4	35.4	34.2	35 4	35.7	50.2
Black, total 50.3 63.3 54.0 48.3 43.0 40.6 37.8 38.3 36.1 59.7 Black, non-Hispanic 50.4 63.4 54.1 48.5 43.1 40.7 37.8 38.5 36.2 59.7 Hispanic 4 37.39 weeks All races 3 4.2 6.6 5.6 4.8 3.9 3.1 2.8 2.8 2.8 2.9 4.3 White, non-Hispanic 3.5 5.7 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.4 Black, non-Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 4.3 4.5 8.4 Black non-Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 4.3 4.5 8.5 Black non-Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 4.3 4.4 Black non-Hispanic 5 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 5.0 4.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8											
Black, non-Hispanic 50.4 63.4 54.1 48.5 43.1 40.7 37.8 38.5 36.2 59.7 Hispanic 4 37.1 47.8 40.8 34.7 32.6 30.0 29.4 29.7 29.5 41.9 37.39 weeks All races 3 3											
Hispanic 4											
All races ³											
White, total	37-39 weeks										
White, non-Hispanic 3.5 5.7 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 40 weeks and over All races 3 1.5 2.7 2.2 1.7 1.4 1.1 1.0 0.9 1.0 1.9 White, total 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.9 1.5 White, non-Hispanic 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.8 0.8 1.4 Black, total 3.0 4.6 4.1 3.3 2.8 2.2 2.1 1.7 1.6 3.7	All races ³	4.2	6.6	5.6	4.5	3.7	3.2	3.1	3.1	3.2	5.2
White, non-Hispanic 3.5 5.7 4.8 3.9 3.1 2.8 2.7 2.8 2.8 4.4 Black, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 40 weeks and over All races 3 1.5 2.7 2.2 1.7 1.4 1.1 1.0 0.9 1.0 1.9 White, total 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.9 1.5 White, non-Hispanic 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.8 1.4 Black, total 3.0 4.6 4.1 3.3 2.8 2.2 2.1 1.7 1.6 3.7 Black, non-Hi	White total	3.6	5.6	1.8	3.0	3 1	2.8	2.8	2.8	2.0	13
Black, total 6.9 9.7 8.4 7.1 6.3 5.5 4.9 4.9 4.5 8.4 Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 40 weeks and over All races 3 1.5 2.7 2.2 1.7 1.4 1.1 1.0 0.9 1.0 1.9 White, total 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.9 1.5 White, non-Hispanic 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.8 0.8 1.4 Black, total 3.0 4.6 4.1 3.3 2.8 2.2 2.1 1.7 1.6 3.7 Black, non-Hispanic 3.0 4.6 4.1 3.3 2.8 2.2 2.1 1.8 1.6 3.8 </td <td></td>											
Black, non-Hispanic 6.9 9.7 8.5 7.2 6.4 5.6 5.0 5.0 4.5 8.5 Hispanic 4 3.9 5.6 4.9 4.1 3.5 3.0 3.1 2.7 3.1 4.3 4.3 4.0 weeks and over All races 3											
Hispanic 4											
40 weeks and over All races ³											
All races ³	•	5.5	5.0	4.5	4.1	3.3	3.0	3.1	2.1	3.1	4.5
White, total 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.9 1.5 White, non-Hispanic 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.8 1.4 Black, total 3.0 4.6 4.1 3.3 2.8 2.2 2.1 1.7 1.6 3.7 Black, non-Hispanic 3.0 4.6 4.1 3.3 2.8 2.3 2.1 1.8 1.6 3.8	40 weeks and over										
White, non-Hispanic 1.2 2.2 1.8 1.4 1.1 0.9 0.8 0.8 0.8 1.4 Black, total 3.0 4.6 4.1 3.3 2.8 2.2 2.1 1.7 1.6 3.7 Black, non-Hispanic 3.0 4.6 4.1 3.3 2.8 2.3 2.1 1.8 1.6 3.8	All races ³	1.5	2.7	2.2	1.7	1.4	1.1	1.0	0.9	1.0	1.9
Black, total		1.2	2.2	1.8	1.4	1.1	0.9	0.8	0.8	0.9	1.5
Black, total	White, non-Hispanic	1.2	2.2	1.8	1.4	1.1	0.9	0.8	0.8	0.8	1.4
Black, non-Hispanic		3.0	4.6	4.1	3.3	2.8	2.2	2.1	1.7	1.6	3.7
	Hispanic 4	1.5	2.2	1.9	1.6	1.3	1.2	1.2	0.9	1.0	1.7

NOTE: Excludes data for California, which did not require reporting of weight gain during pregnancy.

Expressed in completed weeks.
 Includes births with period of gestation not stated.
 Includes races other than white and black and origin not stated.
 Includes all persons of Hispanic origin of any race.

Table 24. Percent of births with selected medical or health characteristics, by specified race of mother, by place of birth of mother: United States, 1998

Charactaristic	A.II			A man min a m			Asian or Pa	cific Islander		
Characteristic	All races	White	Black	American Indian ¹	Total	Chinese	Japanese	Hawaiian	Filipino	Other
All Births Mother										
Prenatal care beginning in the first trimester Late or no prenatal care	82.8 3.9 12.9 1.1 11.3 30.5 21.2	84.8 3.3 14.0 1.0 10.2 30.7 21.0	73.3 7.0 9.5 1.4 16.7 29.9 22.4	68.8 8.5 20.2 3.2 15.3 30.2 18.6	83.1 3.6 3.1 0.4 9.6 30.1 19.4	88.5 2.2 0.8 0.2 5.9 30.4 19.3	90.2 2.1 4.8 0.9 11.0 26.0 15.6	78.8 4.7 16.8 1.4 9.8 31.9 16.2	84.2 3.1 3.3 0.4 7.9 30.5 22.8	80.9 4.2 2.4 0.3 10.8 29.8 18.9
Infant										
Preterm births ⁵	11.6 1.4 7.6 10.1 1.4	10.5 1.1 6.5 11.2 1.2	17.5 3.1 13.0 5.4 2.4	12.2 1.2 6.8 12.4 1.4	10.4 1.1 7.4 5.9 1.1	7.6 0.7 5.3 6.3 0.7	8.7 0.8 7.5 4.7 0.7	12.0 1.5 7.2 9.5 1.3	11.8 1.3 8.2 6.1 1.2	10.7 1.1 7.8 5.6 1.1
Births to mothers born in the 50 States and D.C. Mother										
Prenatal care beginning in the first trimester Late or no prenatal care	84.2 3.4 14.9 1.2 11.1 30.6 21.3	86.8 2.6 15.8 1.1 9.8 30.8 21.2	73.0 7.0 10.4 1.5 17.1 29.9 22.1	68.7 8.5 20.9 3.3 15.5 30.2 18.6	82.4 3.9 10.7 1.0 8.5 30.7 16.8	91.4 1.4 5.9 * 6.7 30.3 16.9	91.8 1.6 7.5 * 9.5 27.7 18.4	78.8 4.7 17.0 1.4 9.7 31.8 16.2	81.6 3.8 8.4 0.9 7.8 30.8 16.4	79.0 5.1 8.8 0.9 7.9 30.9 16.7
Infant										
Preterm births ⁵	11.8 1.5 7.8 10.3 1.5	10.5 1.2 6.6 11.4 1.3	17.9 3.1 13.4 5.0 2.4	12.2 1.2 6.8 12.6 1.4	11.2 1.3 7.7 7.5 1.3	9.5 0.9 7.6 6.3	10.6 1.1 8.0 5.7 1.0	12.1 1.5 7.2 9.5 1.4	11.5 1.4 8.4 6.4 1.1	11.2 1.2 7.5 8.0 1.4
Births to mothers born outside the 50 Sates and D.C. Mother										
Prenatal care beginning in the first trimester Late or no prenatal care	77.1 5.8 2.6 0.5 12.2 30.0 20.6	75.7 6.3 3.0 0.5 12.7 29.9 20.2	76.2 6.4 1.8 0.4 13.5 30.1 24.7	71.4 9.9 5.3 * 11.8 30.1 18.7	83.3 3.5 1.6 0.3 9.8 29.9 19.9	88.3 2.2 0.4 * 5.8 30.4 19.6	88.9 2.5 2.8 1.0 12.0 25.6 13.7	77.4 * * * 33.0 17.4	84.8 2.9 2.0 0.2 7.9 30.4 24.4	81.1 4.1 1.7 0.3 11.1 29.3 19.1
Infant										
Preterm births ⁵	10.8 1.2 6.5 9.0 1.2	10.6 1.0 5.9 10.0 1.1	13.9 2.6 9.6 8.4 1.9	12.1 1.4 7.3 8.0	10.2 1.1 7.3 5.6 1.0	7.4 0.7 5.1 6.3 0.6	7.3 0.7 7.1 4.0	* * *	11.9 1.3 8.2 6.0 1.2	10.6 1.1 7.8 5.3 1.1

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.

Includes births to Aleuts and Eskimos.
Excludes data for California, Indiana, New York State (but includes New York City), and South Dakota, which did not report tobacco use on the birth certificate.

Excludes data for California and South Dakota, which did not report alcohol use on the birth certificate.

Excludes data for California, which did not report weight gain on the birth certificate. Median weight shown in pounds.

Born prior to 37 completed weeks of gestation.

Excludes data for California, which did not report weight gain on the birth certificate. Median weight show Born prior to 37 completed weeks of gestation.

Birthweight of less than 1,500 grams (3 lb 4 oz).

Birthweight of less than 2,500 grams (5 lb 8 oz).

Equivalent to 8 lb 14 oz.

Excludes data for California and Texas, which did not report 5-minute Apgar score on the birth certificate.

Table 25. Percent of births with selected medical or health characteristics, by Hispanic origin of mother and by race for mothers of non-Hispanic origin and by place of birth of mother: United States, 1998

						Origin of mot	her			
				Hisp	oanic			^	lon-Hispani	С
Characteristic	All origins ¹	Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ²	White	Black
All Dimbo										
All Births Mother										
Prenatal care beginning in the first										
trimester	82.8	74.3	72.8	76.9	91.8	78.0	74.8	84.8	87.9	73.3
Late or no prenatal care	3.9	6.3	6.8	5.1	1.2	4.9	6.0	3.4	2.4	7.0
Smoker 3	12.9	4.0	2.8	10.7	3.7	1.5	8.0	14.4	16.2	9.6
Drinker ⁴	1.1	0.6	0.5	0.9	0.5	0.4	1.3	1.2	1.1	1.4
Weight gain of less than 16 lbs 5	11.3	13.4	14.7	12.7	7.8	11.1	12.0	11.0	9.6	16.8
Median weight gain ⁵	30.5	30.0	28.6	30.5	32.2	30.3	30.4	30.6	30.8	29.8
Cesarean delivery rate	21.2	20.6	20.0	21.1	31.0	22.2	19.8	21.3	21.2	22.4
Infant										
Preterm births 6	11.6	11.4	11.0	13.9	11.4	11.6	12.1	11.6	10.2	17.6
Birthweight Very low birthweight 7	4.4	4.4	1.0	4.0	4.0	4.0	4.4	4 F	4.4	2.4
	1.4	1.1	1.0	1.9	1.3	1.2	1.4	1.5	1.1	3.1
Low birthweight 8	7.6	6.4	6.0	9.7	6.5	6.5	7.6	7.8	6.6	13.2
4,000 grams or more 95-minute Apgar score of less than 7 10	10.1 1.4	9.0 1.2	9.3 1.2	7.1 1.4	10.0 0.7	9.1 1.0	7.7 1.2	10.3 1.5	11.8 1.3	5.3 2.4
Births to mothers born in the 50 States and D.C. Mother										
Prenatal care beginning in the first	0.4.0	70.4	70.0	70.0	04.5	04.7	75.0	05.0	00.4	70.0
trimester	84.2	76.4	76.0	76.8	91.5	81.7	75.0	85.0	88.1	73.0
ate or no prenatal care	3.4	5.1	5.2	5.0	1.4	3.5	5.9	3.3	2.3	7.0
Smoker ³	14.9	7.1	5.4	12.1	5.1	4.7	10.0	15.5	16.7	10.4
Orinker 4	1.2	1.0	0.9	0.9	0.7	0.7	1.6	1.2	1.1	1.5
Weight gain of less than 16 lbs 5	11.1	12.4	12.9	12.1	7.8	8.2	12.3	11.0	9.6	17.1
Median weight gain ⁵ Cesarean delivery rate	30.6 21.3	30.0 20.7	28.6 20.7	30.5 20.8	32.2 27.0	30.3 20.5	30.4 19.6	30.6 21.4	30.8 21.3	29.8 22.2
Infant										
Preterm births 6	11.8	12.1	11.7	13.6	11.3	11.4	12.6	11.7	10.3	17.9
Birthweight										
Very low birthweight 7	1.5	1.3	1.2	1.8	1.3	1.4	1.4	1.5	1.1	3.1
Low birthweight 8	7.8	7.2	6.7	9.7	7.0	7.1	8.1	7.9	6.6	13.5
4,000 grams or more 9	10.3	8.1	8.4	7.2	8.9	8.4	7.1	10.5	11.9	5.0
i-minute Apgar score of less than 7 10	1.5	1.3	1.2	1.4	0.8	1.1	1.3	1.5	1.3	2.4
Births to mothers born outside the 50 States and D.C. Mother										
Prenatal care beginning in the first	77.4	70.0	70.7	77.0	00.0	77.0	74.7	00.0	05.5	70.0
trimesterate or no prenatal care	77.1	72.9	70.7	77.2	92.0	77.6	74.7	83.0	85.5	76.6
	5.8	7.0	7.9	5.1	1.2	5.0	5.9	4.0	3.5	6.4
Smoker ³ Drinker ⁴	2.6 0.5	1.6 0.3	0.9 0.3	8.3 0.9	2.8 0.3	1.2 0.3	1.9 0.5	3.8 0.6	6.9 1.0	1.6 0.4
Weight gain of less than 16 lbs ⁵	12.2	14.3	16.2	13.7	7.8	11.5	11.0	10.1	8.5	13.9
Median weight gain 5	30.0	28.5	26.9	30.2	32.2	30.2	30.2	30.3	30.7	29.8
Cesarean delivery rate	20.6	20.5	19.6	21.8	33.7	22.4	20.5	20.7	19.7	24.6
Infant										
Preterm births 6	10.8	11.0	10.6	14.5	11.5	11.7	10.3	10.5	9.2	14.2
Birthweight	. 3.0		. 0.0				. 3.0	. 3.0	J	
Very low birthweight 7	1.2	1.0	0.9	1.9	1.3	1.2	1.0	1.4	1.1	2.8
Low birthweight 8	6.5	5.9	5.5	9.6	6.1	6.4	5.9	7.3	6.0	9.9
4,000 grams or more 9	9.0	9.7	10.0	6.9	10.8	9.2	9.4	8.1	11.2	8.2
5-minute Apgar score of less than 7 10	1.2	1.1	1.1	1.5	0.7	1.0	0.8	1.2	1.0	2.0

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Includes origin not stated.
Includes races other than white and black.
Excludes data for California, Indiana, New York State (but includes New York City), and South Dakota, which did not report tobacco use on the birth certificate.

Excludes data for California and South Dakota, which did not report alcohol use on the birth certificate.

Excludes data for California, which did not report weight gain on the birth certificate.

Median weight gain shown in pounds.

Born prior to 37 completed weeks of gestation.

Birthweight of less than 1,500 grams (3 lb 4 oz).

Birthweight of less than 2,500 grams (5 lb 8 oz).
Excludes data for California, which did not report service on the birth certificate.

¹⁰ Excludes data for California and Texas, which did not report 5-minute Apgar score on the birth certificate.

Table 26. Live births to mothers with selected medical risk factors and rates by age of mother, by race of mother: United States, 1998

[Rates are number of live births with specified medical risk factor per 1,000 live births in specified group]

Market viels for the sea	A.II	Medical			A	Age of mothe	er			. N-1
Medical risk factor and race of mother	All births ¹	risk factor reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated
All races ²										
Anemia	3,941,553	84,795	21.8	30.6	26.3	19.8	17.3	16.9	17.6	54,872
Cardiac disease	3,941,553	20,528	5.3	2.9	3.6	5.2	6.9	8.1	9.0	54,872
Acute or chronic lung disease	3,941,553	40,190	10.3	13.3	11.4	9.4	9.1	9.3	10.4	54,872
Diabetes	3,941,553	103,691	26.7	8.2	16.0	26.2	35.5	47.4	65.7	54,872
Genital herpes 3	3,599,270	32,969	9.3	6.4	8.3	9.0	10.5	12.3	12.1	53,169
Hydramnios/Oligohydramnios	3,941,553	51,296	13.2	14.5	13.5	12.4	12.4	14.0	17.3	54,872
Hemoglobinopathy	3,941,553	3,202	0.8	1.0	1.0	0.7	0.7	0.7	0.9	54,872
Hypertension, chronic	3,941,553	27,442	7.1	2.4 43.4	4.2	6.3	8.9	13.6	24.8	54,872
Hypertension, pregnancy-associated	3,941,553	146,320 12,345	37.6 3.2	43.4	37.6 3.4	36.8 2.9	34.5 2.6	38.0 3.0	48.0 4.3	54,872 54.872
Eclampsia	3,941,553 3,941,553	10,704	2.8	1.2	2.0	2.8	2.6 3.5	4.3	4.3 4.6	54,872
Incompetent cervix Previous infant 4000+ grams	3,941,553	42,802	11.0	1.4	6.3	11.3	16.2	19.1	22.2	54,872
Previous preterm or small-for-	5,541,555	72,002	11.0	1.4	0.5	11.3	10.2	13.1	22.2	54,012
gestational-age infant	3,941,553	47,429	12.2	4.9	12.5	12.6	13.6	15.2	15.9	54.872
Renal disease	3,941,553	11,141	2.9	3.0	3.1	2.9	2.7	2.4	2.5	54.872
Rh sensitization ⁴	3,903,131	25,783	6.7	5.3	6.1	6.9	7.5	7.6	6.8	56,374
Uterine bleeding ³	3,599,270	23,241	6.6	4.8	5.8	6.7	7.2	8.0	9.4	53,169
White										
Anemia	3,118,727	59,071	19.2	27.1	22.6	17.7	15.9	15.5	16.2	42,643
Cardiac disease	3,118,727	17,262	5.6	2.9	3.6	5.4	7.4	8.5	9.6	42,643
Acute or chronic lung disease	3,118,727	30,483	9.9	12.3	10.6	9.2	9.2	9.2	10.3	42,643
Diabetes	3,118,727	79,560	25.9	8.5	15.9	25.1	33.2	43.8	60.8	42,643
Genital herpes ³	2,826,910	25,912	9.3	5.6	7.4	8.8	11.0	13.4	13.9	41,352
Hydramnios/Oligohydramnios	3,118,727	38,537	12.5	13.3	12.9	11.9	11.8	13.3	16.6	42,643
Hemoglobinopathy	3,118,727	1,181	0.4	0.2	0.4	0.4	0.4	0.5	0.5	42,643
Hypertension, chronic	3,118,727	18,798	6.1	2.0	3.7	5.5	7.5	11.0	19.8	42,643
Hypertension, pregnancy-associated	3,118,727	116,590	37.9	43.1	38.5	37.7	34.6	37.5	46.8	42,643
Eclampsia	3,118,727	9,206	3.0	4.0	3.2	2.8	2.6	2.8	3.8	42,643
Incompetent cervix	3,118,727	7,418	2.4	1.2	1.6	2.3	3.0	3.9 21.0	4.7	42,643
Previous infant 4000+ grams	3,118,727	38,267	12.4	1.5	7.0	12.4	17.7	21.0	25.2	42,643
Previous preterm or small-for-	3,118,727	36,471	11.9	4.4	11.9	12.2	13.1	14.9	15.9	42.643
gestational-age infant Renal disease	3,118,727	9,351	3.0	3.4	3.3	3.1	2.9	2.6	2.6	42,643
Rh sensitization ⁴	3.084.431	23,264	7.7	6.3	6.9	7.8	8.4	8.5	7.8	43.982
Uterine bleeding ³	2,826,910	19,242	6.9	5.1	6.1	7.0	7.5	8.2	9.7	41,352
Black										
Anemia	609,902	20,792	34.4	38.1	38.9	32.6	27.6	27.1	25.9	6,330
Cardiac disease	609,902	2,617	4.3	2.9	3.7	4.7	5.5	6.9	8.4	6,330
Acute or chronic lung disease	609,902	8,414	13.9	16.0	15.0	12.8	11.6	12.0	12.9	6,330
Diabetes	609,902	15,146	25.1	7.1	14.9	28.4	43.7	58.3	77.7	6,330
Genital herpes ³	569,690	6,205	11.0	8.7	12.4	12.7	10.8	8.5	6.0	6,024
Hydramnios/Oligohydramnios	609,902	10,105	16.7	17.8	15.6	15.6	17.5	19.1	22.9	6,330
Hemoglobinopathy	609,902	1,886	3.1	3.1	3.4	3.1	2.9	2.4	3.6	6,330
Hypertension, chronic	609,902	7,579	12.6	3.4	6.2	12.4	21.5	36.0	63.1	6,330
Hypertension, pregnancy-associated	609,902	24,500	40.6	45.0	36.2	38.4	41.2	48.0	57.7	6,330
Eclampsia	609,902	2,602	4.3	5.4	3.9	4.0	3.8	4.3	7.1	6,330
Incompetent cervix	609,902	2,869	4.8	1.5	3.4	6.3	7.8	8.3	5.7	6,330
Previous infant 4000+ grams Previous preterm or small-for-	609,902	2,951	4.9	1.1	3.5	6.3	8.2	9.3	8.9	6,330
gestational-age infant	609,902	9,052	15.0	6.3	15.7	17.4	19.4	19.8	17.6	6,330
Renal disease	609,902	1,352	2.2	2.2	2.4	2.3	2.1	1.8	*	6,330
Rh sensitization 4	607,113	2,122	3.5	3.0	3.6	3.7	3.8	3.7	3.8	6,474
Uterine bleeding ³	569,690	2,852	5.1	4.0	4.6	5.3	6.0	6.9	6.8	6,024

Total number of births to residents of areas reporting specified medical risk factor.
 Includes races other than white and black.
 Texas does not report this risk factor.
 Kansas does not report this risk factor.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 27. Number and rate of live births to mothers with selected medical risk factors, complications of labor, and obstetric procedures, by specified race of mother: United States, 1998

[Rates are number of live births with specified risk factors, complications, or procedures per 1,000 live births in specified group]

Medical risk factor,	A.11	14// 2	51 1	American			Asian or Pac	cific Islander		
complication, and obstetric procedure	All races	White	Black	Indian ¹	Total	Chinese	Japanese	Hawaiian	Filipino	Other
					Num	ber				
Medical risk factors										
Anemia	84,795	59,071	20,792	1,940	2,992	265	139	205	453	1,930
Diabetes Hypertension, pregnancy-associated	103,691 146,320	79,560 116,590	15,146 24,500	1,885 1,819	7,100 3,411	1,228 393	239 144	178 156	1,327 935	4,128 1,783
Uterine bleeding ²	23,241	19,242	2,852	279	868	120	69	61	157	461
Complications of labor and/or delivery										
Meconium,moderate/heavy	214,627	156,452	46,722	2,217	9,236	1,449	336	301	1,822	5,328
Premature rupture of membrane	104,453 106.709	79,701 85,116	18,944 15,677	1,507 1,343	4,301 4.573	610 784	248 260	190 189	747 844	2,506 2,496
Breech/Malpresentation	150,685	125,303	18,239	1,372	5,771	960	320	200	1,036	3,255
Cephalopelvic disproportion	75,406	61,677	9,231	663	3,835	643	158	97	826	2,111
Fetal distress ³	140,844	104,826	29,165	1,372	5,481	851	192	126	972	3,340
Obstetric procedures										
Amniocentesis	112,778	95,579	9,998	656	6,545	1,970	701	158	1,075	2,641
Electronic fetal monitoring	3,278,992 751,389	2,603,263 630,676	509,250 91,037	32,072 7,620	134,407 22,056	21,919 3,415	6,652 1,203	4,350 772	23,928 3,440	77,558 13,226
Ultrasound	2,538,927	2,052,224	359,350	23,269	104,084	17,822	5,594	3,362	18,565	58,741
Stimulation of labor	694,303	560,376	98,086	6,140	29,701	5,261	1,403	595	4,594	17,848
					Ra	te				
Medical risk factors										
Anemia	21.8	19.2	34.4	49.9	17.8	9.6	16.8	38.9	15.0	20.0
Diabetes	26.7	25.9	25.1	48.5	42.2	44.3	28.9	33.7	43.9	42.7
Hypertension, pregnancy-associated Uterine bleeding ²	37.6 6.6	37.9 6.9	40.6 5.1	46.8 7.3	20.3 5.5	14.2 4.5	17.4 8.6	29.6 11.7	30.9 5.4	18.5 5.1
Complications of labor and/or delivery										
Meconium,moderate/heavy	55.1	50.8	77.2	57.0	54.4	52.0	39.0	53.4	59.4	55.0
Premature rupture of membrane	26.8	25.9	31.3	38.7	25.3	21.9	28.8	33.7	24.4	25.9
Dysfunctional labor Breech/Malpresentation	27.4 38.7	27.6 40.7	25.9 30.1	34.5 35.3	27.0 34.0	28.1 34.5	30.2 37.2	33.6 35.5	27.5 33.8	25.8 33.6
Cephalopelvic disproportion	36.7 19.4	20.0	15.3	17.0	22.6	23.1	37.2 18.4	17.2	26.9	21.8
Fetal distress ³	39.7	37.6	51.7	36.0	34.2	32.0	22.9	22.7	32.9	37.1
Obstetric procedures										
Amniocentesis	28.9	30.9	16.5	16.8	38.5	70.7	82.0	28.4	35.1	27.2
Electronic fetal monitoring	839.8 192.4	842.6 204.1	840.2 150.2	821.2 195.1	791.6 129.9	786.7 122.6	778.3 140.8	781.8 138.7	780.9 112.3	798.2 136.1
Ultrasound	650.3	204.1 664.2	592.9	195.1 595.8	613.0	639.7	654.5	604.2	605.9	604.5
Stimulation of labor	177.8	181.4	161.8	157.2	174.9	188.8	164.2	106.9	149.9	183.7

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Includes births to Aleuts and Eskimos.
 Texas does not report this risk factor.
 Texas does not report this complication.

Table 28. Number and rate of live births to mothers with selected medical risk factors, complications of labor, and obstetric procedures, by Hispanic origin of mother and by race for mothers of non-Hispanic origin: United States, 1998

[Rates are number of live births with specified risk factors, complications or procedures per 1,000 live births in specified group]

						Origin of mo	ther			
Medical risk factor, complication,	1			His	panic			N	on-Hispanic	
and obstetric procedure	All origins ¹	Total	Mexican	Puerto Rican	Cuban	Central and South American	Other and unknown Hispanic	Total ²	White	Black
					1	Number				
Medical risk factors										
Anemia	84,795	15,800	10,156	1,802	183	1,485	2,174	67,746	42,722	20,335
Diabetes	103,691	19,411	13,010	1,941	278 386	2,827	1,355	82,792	59,490	14,631
Hypertension, pregnancy-associated Uterine bleeding ³	146,320 23,241	20,268 2,605	13,634 1,563	1,781 363	49	2,673 407	1,794 223	124,385 20,190	95,440 16,366	23,965 2,753
Complications of labor and/or delivery										
Meconium,moderate/heavy	214,627	41,246	28,113	3,486	479	6,306	2,862	170,727	114,325	45,417
Premature rupture of membrane	104,453	14,181	8,835	1,663	281	1,991	1,411	88,562	64,493	18,491
Dysfunctional labor	106,709 150.685	16,272 21.825	9,284 14.429	1,928 2.025	546 498	2,741 3.069	1,773 1.804	88,571	67,699 102.313	15,174 17,706
Breech/Malpresentation	75,406	10,681	7,486	2,025 799	183	1,453	760	126,867 63,909	50,570	9,011
Fetal distress ⁴		18,483	11,302	2,261	308	3,033	1,579	120,585	85,486	28,486
Obstetric procedures										
Amniocentesis	112,778	9,744	4,669	1,306	370	2,314	1,085	100,537	83,959	9,607
Electronic fetal monitoring	3,278,992	578,012	397,813	49,386	11,707	78,201	40,905	2,663,051	2,007,746	495,224
Induction of labor	751,389	94,233	62,493	8,645	2,397	11,943	8,755	646,713	529,565	88,727
UltrasoundStimulation of labor	2,538,927 694,303	401,403 119,436	271,096 79,996	36,642 11,923	7,682 2,187	54,672 16,762	31,311 8,568	2,105,176 566,227	1,633,761 436,522	349,200 95,032
						Rate				
	-									
Medical risk factors										
Anemia	21.8	21.7	19.8	32.2	13.9	15.3	44.4	21.8	18.4	34.6
Diabetes	26.7 37.6	26.7 27.9	25.4 26.6	34.7 31.9	21.1 29.3	29.1 27.5	27.7 36.6	26.6 39.9	25.6 41.0	24.9 40.8
Hypertension, pregnancy-associated Uterine bleeding ³	6.6	4.5	4.1	6.6	3.8	4.5	5.4	6.9	7.5	5.0
Complications of labor and/or delivery										
Meconium,moderate/heavy	55.1	56.5	54.7	62.1	36.3	64.6	58.2	54.7	49.1	77.2
Premature rupture of membrane	26.8	19.4	17.2	29.6	21.3	20.4	28.7	28.4	27.7	31.4
Dysfunctional labor	27.4	22.3	18.1	34.4	41.4	28.1	36.1	28.4	29.1	25.8
Breech/Malpresentation	38.7 19.4	29.9 14.6	28.1 14.6	36.1 14.2	37.8 13.9	31.5 14.9	36.7 15.5	40.7 20.5	43.9 21.7	30.1 15.3
Fetal distress ⁴	39.7	32.0	29.9	41.1	23.9	33.6	38.4	41.2	39.1	51.9
Obstetric procedures										
Amniocentesis	28.9	13.3	9.1	23.2	28.0	23.6	22.0	32.1	35.9	16.3
Electronic fetal monitoring	839.8	790.6	773.2	876.9	886.7	799.1	830.7	851.5	859.0	840.0
Induction of laborUltrasound	192.4 650.3	128.9 549.0	121.5 526.9	153.5 650.6	181.5 581.8	122.0 558.7	177.8 635.8	206.8 673.1	226.6 699.0	150.5 592.3
Stimulation of labor	177.8	163.4	155.5	211.7	165.6	171.3	174.0	181.1	186.8	161.2

Includes origin not stated.
 Includes races other than white and black.
 Texas does not report this risk factor.
 Texas does not report this complication.

NOTE: Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 29. Number of live births by smoking status of mother, percent smokers, and percent distribution by average number of cigarettes smoked by mothers per day, according to age and race of mother: Total of 46 reporting States, the District of Columbia, and New York City, 1998

					Age of m	nother				
Smoking status, smoking	_			15-19 years						
measure, and race of mother	All ages	Under 15 years	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
					Num	ber				
All races ¹										
Total	3,186,186	8,056	403,166	143,799	259,367	793,176	877,765	707,569	332,045	64,409
Smoker Nonsmoker Not stated	404,520 2,732,416 49,250	612 7,350 94	70,938 326,496 5,732	21,949 119,889 1,961	48,989 206,607 3,771	128,652 652,708 11,816	98,568 765,713 13,484	64,880 631,254 11,435	34,560 291,956 5,529	6,310 56,939 1,160
White										
Total	2,492,290	3,759	274,055	92,917	181,138	592,477	709,323	587,178	273,519	51,979
Smoker Nonsmoker Not stated	343,042 2,109,916 39,332	473 3,233 53	60,779 209,062 4,214	18,594 72,933 1,390	42,185 136,129 2,824	110,234 473,014 9,229	84,630 613,655 11,038	54,007 523,796 9,375	27,911 241,112 4,496	5,008 46,044 927
Black										
Total	548,653	4,003	115,957	45,921	70,036	171,505	124,996	82,730	40,880	8,582
Smoker Nonsmoker Not stated	51,371 490,797 6,485	103 3,872 28	8,090 106,779 1,088	2,594 42,909 418	5,496 63,870 670	15,059 154,667 1,779	11,662 111,811 1,523	9,413 72,074 1,243	5,885 34,327 668	1,159 7,267 156
					Perc	ent				
Smoker ¹	12.9	7.7	17.8	15.5	19.2	16.5	11.4	9.3	10.6	10.0
WhiteBlack	14.0 9.5	12.8 2.6	22.5 7.0	20.3 5.7	23.7 7.9	18.9 8.9	12.1 9.4	9.3 11.6	10.4 14.6	9.8 13.8
					Percent dis	stribution				
All races ¹										
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1-5 cigarettes 6-10 cigarettes 11-15 cigarettes 11-15 cigarettes 21-30 cigarettes 31-40 cigarettes 41 cigarettes or more White	27.7 40.9 6.3 21.2 2.7 1.0 0.1	47.3 35.6 4.4 10.3 *	35.8 41.6 4.6 15.8 1.6 0.4	40.6 40.4 3.9 13.4 1.2 0.4 0.1	33.7 42.2 4.9 16.9 1.8 0.4	28.3 41.9 5.9 20.6 2.3 0.8 0.1	24.7 41.1 7.0 23.0 3.0 1.0 0.1	24.5 39.6 7.4 23.5 3.5 1.3 0.2	23.7 38.2 7.5 24.7 4.0 1.6 0.2	22.8 36.3 7.5 25.9 4.7 2.5
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1-5 cigarettes 6-10 cigarettes 11-15 cigarettes 11-20 cigarettes 21-30 cigarettes 21-30 cigarettes 31-40 cigarettes 41 cigarettes or more	24.8 41.3 6.9 22.8 3.0 1.0 0.1	41.7 38.5 5.5 11.5	32.3 43.2 5.0 17.2 1.7 0.4 0.1	37.0 42.3 4.2 14.7 1.3 0.4	30.3 43.6 5.3 18.3 1.9 0.5	25.1 42.7 6.4 22.3 2.5 0.8 0.1	22.2 41.2 7.5 24.6 3.3 1.0 0.1	22.0 39.3 8.1 25.1 3.9 1.4 0.2	21.0 37.4 8.3 26.8 4.5 1.8 0.2	20.5 35.0 8.0 28.0 5.4 2.7
Black										
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1-5 cigarettes	44.7 38.3 3.1 11.9 1.2 0.7 0.1	69.7 23.2 * * * *	58.5 31.3 2.1 7.3 0.5	63.0 28.1 2.1 5.9	56.3 32.8 2.2 7.9 0.5	49.2 36.5 2.5 10.2 1.0 0.5	40.9 40.7 3.3 12.9 1.3 0.8	37.4 41.7 3.8 14.7 1.4 0.8	35.8 42.0 3.9 15.4 1.8 1.0	32.5 41.1 5.7 17.5 *

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.

1 Includes races other than white and black.

NOTE: Excludes data for California, Indiana, New York State (but includes New York City), and South Dakota, which did not require reporting of tobacco use during pregnancy. Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 30. Number of live births by smoking status of mother and percent of mothers who smoked cigarettes during pregnancy, by age and Hispanic origin of mother and by race for mothers of non-Hispanic origin: Total of 46 reporting States, the District of Columbia, and New York City, 1998

		Smoking	g status					,	Age of mo	other				
Origin of mother							1	5-19 yea	s					
	Total births	Smoker	Non- smoker	Not stated	All ages	Under 15 years	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All origins ¹	3,186,186	404,520	2,732,416	49,250	12.9	7.7	17.8	15.5	19.2	16.5	11.4	9.3	10.6	10.0
Hispanic	470,272	18,395	446,111	5,766	4.0	4.1	4.9	4.6	5.1	4.2	3.3	3.4	4.2	4.4
Mexican	296,175 52,615 12,280	8,210 5,533 453	284,890 46,040 11,774	3,075 1,042 53	2.8 10.7 3.7	3.8	3.5 10.5 6.1	3.3 9.5 7.2	3.6 11.2 5.4	2.9 11.3 3.8	2.3 10.4 3.0	2.4 10.2 3.2	3.1 11.8 4.5	3.3 10.6 *
Central and South American Other and unknown	68,788	1,041	67,052	695	1.5	*	2.0	1.6	2.2	1.6	1.3	1.3	1.8	2.9
Hispanic	40,414	3,158	36,355	901	8.0	*	8.7	7.9	9.4	8.8	7.1	7.0	7.8	7.3
Non-Hispanic ²	2,686,387	381,797	2,264,752	39,838	14.4	8.8	21.1	18.6	22.4	19.2	12.7	10.0	11.3	10.6
WhiteBlack	2,013,456 533,983	321,934 50,454	1,660,891 477,421	30,631 6,108	16.2 9.6	21.4 2.5	29.8 7.0	28.6 5.7	30.4 7.9	23.5 8.9	13.9 9.5	10.2 11.8	11.2 14.9	10.6 14.0

 ^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.
 1 Includes origin not stated.
 2 Includes races other than white and black.

NOTES: Excludes data for California, Indiana, New York State (but includes New York City), and South Dakota, which did not require reporting of tobacco use during pregnancy. Race and Hispanic origin are reported separately on birth certificates. Persons of Hispanic origin may be of any race. In this table Hispanic women are classified only by place of origin; non-Hispanic women are classified by race. See Technical notes.

Table 31. Number of live births, percent of mothers who smoked cigarettes during pregnancy, and percent distribution of average number of cigarettes smoked by mothers per day, according to educational attainment and race and Hispanic origin of mother: Total of 46 reporting States, the District of Columbia, and New York City, 1998

On a triangue and	_		Yea	ars of school comp	oleted by mother		
Smoking measure, and race and Hispanic origin of mother	Total	0-8 years	9-11 years	12 years	13-15 years	16 years or more	Not Stated
				All births			
All races ¹	3,186,186	148,228	502,784	1,040,555	700,923	744,939	48,757
White, total White, non-Hispanic Black, total Black, non-Hispanic Hispanic ²	2,492,290 2,013,456 548,653 533,983 470,272	126,212 36,437 15,463 14,309 90,726	352,375 225,437 131,856 128,350 128,176	786,621 646,829 210,802 205,702 139,097	551,216 485,489 121,699 119,001 64,434	642,007 601,054 58,518 57,221 36,117	33,859 18,210 10,315 9,400 11,722
_				Percent			
Smoker	12.9	11.7	25.5	16.8	9.6	2.2	12.8
White, total White, non- Hispanic Black, total Black, non-Hispanic Hispanic ²	14.0 16.2 9.5 9.6 4.0	12.1 35.4 10.4 10.9 2.6	29.3 42.0 16.4 16.5 6.2	19.3 22.4 9.1 9.2 3.9	10.6 11.6 5.8 5.9 3.1	2.3 2.4 2.1 2.1 1.1	13.6 19.3 13.0 13.0 4.0
_			Pe	rcent distribution			
All races ¹							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	68.6 27.6 3.8	62.6 31.2 6.2	68.4 27.4 4.2	67.9 28.4 3.7	70.4 26.4 3.2	75.4 22.4 2.2	70.2 25.8 4.1
White, total							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	66.1 29.7 4.1	60.4 32.9 6.6	64.9 30.4 4.7	65.7 30.3 4.0	68.6 27.9 3.4	74.6 23.0 2.3	67.3 28.3 4.4
White, non-Hispanic							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	65.3 30.5 4.3	56.7 35.9 7.4	63.5 31.6 4.9	65.2 30.8 4.0	68.2 28.3 3.5	74.4 23.2 2.4	66.3 29.2 4.6
Black, total							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	83.0 15.0 2.0	79.0 18.1 2.9	83.5 14.5 2.1	83.1 15.0 1.9	83.5 15.1 1.4	82.9 15.8 *	77.8 19.1 3.1
Black, non-Hispanic							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	83.1 15.0 2.0	79.0 18.0 3.0	83.5 14.4 2.1	83.1 15.0 1.9	83.4 15.1 1.4	82.7 15.9 *	77.4 19.5 3.1
Hispanic ²							
Smoker	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10 cigarettes or less	83.3 14.9 1.8	82.9 15.2 1.9	84.3 13.9 1.8	82.7 15.6 1.7	83.0 15.5 1.5	84.3 14.9 *	74.9 21.5 *

 ^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.
 1 Includes races other than white and black and origin not stated.
 2 Includes all persons of Hispanic origin of any race.

NOTE: Excludes data for California, Indiana, New York State (but includes New York City), and South Dakota, which did not require reporting of tobacco use during pregnancy.

Table 32. Percent low birthweight by smoking status, age, and race and Hispanic origin of mother: Total of 46 reporting States, the District of Columbia, and New York City, 1998

[Low birthweight is defined as weight of less than 2,500 grams (5 lb 8 oz)]

						Age of mothe	r			
Smoking status and				15-19 years						
race of mother	All ages	Under 15 years	Total	15-17 years	18-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years
All races ¹										
Total	7.8	13.4	9.9	10.8	9.4	7.8	6.9	7.2	8.6	10.5
Smoker Nonsmoker Not stated	12.0 7.2 8.9	14.1 13.3 *	11.6 9.5 10.5	12.2 10.5 10.9	11.4 8.9 10.3	10.5 7.3 8.4	11.0 6.3 8.0	13.6 6.5 8.2	16.9 7.6 10.9	19.1 9.5 11.7
White, total										
Total	6.7	11.2	8.3	9.0	7.9	6.6	5.9	6.3	7.5	9.4
Smoker	10.7 6.0 8.0	13.0 10.8 *	10.9 7.5 9.3	11.4 8.4 9.6	10.7 7.0 9.1	9.8 5.8 7.5	9.7 5.4 7.2	11.6 5.7 7.3	14.3 6.7 10.1	16.3 8.6 11.4
White, non-Hispanic										
Total	6.6	11.5	8.4	9.2	8.0	6.6	5.9	6.2	7.4	9.3
Smoker	10.6 5.8 7.9	12.9 10.9 *	10.9 7.3 9.1	11.3 8.3 9.7	10.7 6.8 8.8	9.7 5.6 7.3	9.5 5.3 7.4	11.4 5.6 7.2	14.2 6.5 9.7	16.4 8.5 11.2
Black, total										
Total	13.1	15.7	13.8	14.5	13.4	12.1	12.2	13.8	16.0	17.5
Smoker	20.9 12.3 15.2	* 15.6 *	17.2 13.5 16.0	18.3 14.2 15.9	16.7 13.0 16.1	16.2 11.7 13.1	20.5 11.3 15.1	25.4 12.3 15.5	29.1 13.7 18.8	32.1 15.2 15.6
Black, non-Hispanic										
Total	13.3	15.6	13.9	14.6	13.4	12.2	12.3	14.0	16.1	17.6
Smoker Nonsmoker Not stated	21.0 12.4 15.4	* 15.5 *	17.3 13.6 16.2	18.4 14.3 16.5	16.8 13.1 16.0	16.3 11.8 13.1	20.6 11.4 15.3	25.6 12.4 15.6	29.3 13.7 19.2	31.9 15.3 16.4
Hispanic ²										
Total	6.9	11.1	8.1	8.7	7.7	6.6	6.1	6.7	8.3	9.6
Smoker	12.8 6.6 8.6	* 10.9 *	11.6 7.8 9.8	12.2 8.5 9.5	11.3 7.4 9.9	11.2 6.3 8.6	13.1 5.8 7.1	15.0 6.3 8.0	17.1 7.8 11.5	16.0 9.2 11.4

 ^{*} Figure does not meet standards of reliability or precision; based on fewer then 20 births in the numerator or denominator.
 1 Includes races other than white and black and origin not stated.
 2 Includes all persons of Hispanic origin of any race.

NOTE: Excludes data for California, Indiana, New York State (but includes New York City), and South Dakota, which did not require reporting of tobacco use during pregnancy.

Table 33. Live births by month of pregnancy prenatal care began and percent of mothers beginning care in the first trimester and percent with late or no care, by age and race and Hispanic origin of mother: United States, 1998

					Month of preg	gnancy prena	atal care bega	n			
Age and race and Hispanic origin	All births		1st trimester		2d trimester	Lá	ate or no care		Not	Perc	ent
of mother	Dirurs	Total	1st and 2d months	3d month	4th-6th months	Total	7th-9th months	No care	stated	1st trimester	Late or no care
All races 1	3,941,553	3,174,194	2,447,530	726,664	508,373	149,645	103,482	46,163	109,341	82.8	3.9
Under 15 years	9,462	4,329	2,629	1,700	3,286	1,443	1,030	413	404	47.8	15.9
15-19 years	484,895	321,931	217,163	104,768	114,400	33,538	23,964	9,574	15,026	68.5	7.1
15 years	24,777	13,579	8,558	5,021	7,615	2,665	1,935	730	918	56.9	11.2
16 years	55,033	33,044	21,259	11,785	15,376	4,709	3,349	1,360	1,904	62.2	8.9
17 years	93,421	60,530	39,934	20,596	23,204	6,772	4,841	1,931	2,915	66.9	7.5
18 years	137,567	93,187	63,017	30,170	31,372	8,918	6,389	2,529	4,090	69.8	6.7
19 years	174,097	121,591	84,395	37,196	36,833	10,474	7,450	3,024	5,199	72.0	6.2
20-24 years	965,122	727,391	533,672	193,719	163,042	46,862	33,272	13,590	27,827	77.6	5.0
25-29 years	1,083,010	911,612	720,837	190,775	111,604	32,374	22,249	10,125	27,420	86.4	3.1
30-34 years	889,365 424,890	774,029 365,259	625,993 292,782	148,036 72,477	70,935 36,032	21,280 11,140	13,973 7,095	7,307 4,045	23,121 12,459	89.4 88.6	2.5 2.7
35-39 years 40 years and over	84,809	69,643	54,454	15,189	9,074	3,008	1,899	1,109	3,084	85.2	3.7
White, total	3,118,727	2,581,679	2,009,201	572,478	362,420	99,608	71,460	28,148	75,020	84.8	3.3
Under 15 years	4,801	2,454	1,491	963	1,495	667	459	208	185	53.2	14.4
15-19 years	340,694	234,662	159,246	75,416	75,391	21,261	15,610	5,651	9,380	70.8	6.4
15 years	15,233	8,907	5,677	3,230	4,327	1,490	1,091	399	509	60.5	10.1
16 years	36,439	23,025	14,958	8,067	9,479	2,810	2,049	761	1,125	65.2	8.0
17 years	64,951	43,611	28,955	14,656	15,176	4,314	3,163	1,151	1,850	69.1	6.8
18 years	97,971	68,495	46,518	21,977	21,112	5,811	4,286	1,525	2,553	71.8	6.1
19 years	126,100	90,624	63,138	27,486	25,297	6,836	5,021	1,815	3,343	73.8	5.6
20-24 years	736,664	569,391	420,126	149,265	116,619	31,692	23,171	8,521	18,962	79.3	4.4
25-29 years	880,688	756,688	602,540	154,148	82,562	22,341	15,981	6,360	19,097	87.8	2.6
30-34 years	737,532	654,105	532,679	121,426	52,901	14,182	9,877	4,305	16,344	90.7	2.0
35-39 years	349,799	306,850	247,740	59,110	26,728	7,395	4,998	2,397	8,826	90.0	2.2
40 years and over	68,549	57,529	45,379	12,150	6,724	2,070	1,364	706	2,226	86.7	3.1
White, non-Hispanic	2,361,462	2,035,753	1,614,399	421,354	223,984	55,044	39,644	15,400	46,681	87.9	2.4
Under 15 years	2,132	1,118	679	439	660	294	215	79	60	54.0	14.2
15-19 years	219,169	158,579	108,593	49,986	44,768	10,961	8,214	2,747	4,861	74.0	5.1
15 years	7,767	4,769	3,022	1,747	2,095	696	513	183	207	63.1	9.2
16 years	20,464	13,540	8,868	4,672	5,028	1,396	1,042	354	500	67.8	7.0
17 years	40,388 64,472	28,510 47,088	18,993 32,199	9,517 14,889	8,794 13,027	2,166 3,005	1,605 2,277	561 728	918 1,352	72.2 74.6	5.5 4.8
18 years 19 years	86,078	64,672	45,511	19,161	15,824	3,698	2,777	921	1,884	76.8	4.4
20-24 years	511,101	413,228	309,780	103,448	70,564	16,627	12,354	4,273	10,682	82.6	3.3
25-29 years	678,227	603,733	489,557	114,176	50,263	12,277	8,793	3,484	11,954	90.6	1.8
30-34 years	603,639	549,417	453,688	95,729	34,408	8,549	5,844	2,705	11,265	92.7	1.4
35-39 years	291,202	261,412	213,526	47,886	18,609	4,917	3,303	1,614	6,264	91.7	1.7
40 years and over	55,992	48,266	38,576	9,690	4,712	1,419	921	498	1,595	88.7	2.6
Black, total	609,902	428,102	314,811	113,291	115,158	40,793	24,904	15,889	25,849	73.3	7.0
Under 15 years	4,289	1,752	1,065	687	1,639	703	513	190	195	42.8	17.2
15-19 years	126,937	77,158	51,485	25,673	34,124	10,717	7,169	3,548	4,938	63.2	8.8
15 years	8,599	4,220	2,606	1,614	2,976	1,037	742	295	366	51.3	12.6
16 years	16,414	8,888	5,647	3,241	5,174	1,670	1,129	541	682	56.5	10.6
17 years	25,090	14,999	9,779	5,220	7,019	2,128	1,428	700	944	62.1	8.8
18 years	34,885	21,837	14,677	7,160	8,982	2,715	1,803	912	1,351	65.1	8.1
19 years	41,949	27,214	18,776	8,438	9,973	3,167	2,067	1,100	1,595	67.4	7.8
20-24 years 25-29 years	189,088	130,722	94,500	36,222 24,737	38,409 20,965	12,739	8,208 4,420	4,531 3,242	7,218 5,810	71.9 78.6	7.0 5.7
30-34 years	139,302 93,785	104,856 71,848	80,119 55,734	16,114	12,057	7,662 5,300	2,740	2,560	5,819 4,580	80.5	5.7 5.9
35-39 years	46,657	34,810	26,747	8,063	6,395	2,935	1,480	1,455	2,517	78.9	6.6
Jo Jouro	9,844	6,956	5,161	1,795	1,569	737	374	363	582	75.1	8.0

Table 33. Live births by month of pregnancy prenatal care began and percent of mothers beginning care in the first trimester and percent with late or no care, by age and race and Hispanic origin of mother: United States, 1998 --Con.

					Month of preg	gnancy pren	atal care bega	ın			
Age and race and Hispanic origin	All births -		1st trimester		2d trimester	La	ate or no care		Mot	Perc	ent
of mother	Dirurs	Total	1st and 2d months	3d month	4th-6th months	Total	7th-9th months	No care	Not stated	1st trimester	Late or no care
Black, non-Hispanic	593,127	416,966	306,711	110,255	112,080	39,683	24,081	15,602	24,398	73.3	7.0
Under 15 years	4,204 124,076 8,420 16,021 24,542 34,089 41,004 184,263 135,158 90,827 45,096 9,503	1,719 75,480 4,122 8,674 14,689 21,374 26,621 127,620 101,986 69,726 33,700 6,735	1,045 50,367 2,536 5,507 9,574 14,373 18,377 92,258 78,001 54,133 25,909 4,998	674 25,113 1,586 3,167 5,115 7,001 8,244 35,362 23,985 15,593 7,791 1,737	1,615 33,408 2,924 5,062 6,882 8,787 9,753 37,408 20,282 11,665 6,193 1,509	684 10,468 1,014 1,633 2,066 2,651 3,104 12,425 7,405 5,140 2,844 717	500 6,977 724 1,099 1,383 1,754 2,017 7,986 4,225 2,619 1,410 364	184 3,491 290 534 683 897 1,087 4,439 3,180 2,521 1,434 353	186 4,720 360 652 905 1,277 1,526 6,810 5,485 4,296 2,359 542	42.8 63.2 51.1 56.4 62.1 65.1 67.4 71.9 78.6 80.6 78.9 75.2	17.0 8.8 12.6 10.6 8.7 8.1 7.9 7.0 5.7 5.9 6.7 8.0
Hispanic ²	734,661 2,716 121,388 7,525 16,079 24,630 33,400 39,754 223,113 196,012 125,702 54,195 11,535	526,798 1,350 75,940 4,187 9,540 15,143 21,335 25,735 154,217 147,404 97,547 41,829 8,511	378,969 815 50,574 2,704 6,131 9,985 14,258 17,496 108,857 108,383 72,951 31,207 6,182	147,829 535 25,366 1,483 3,409 5,158 7,077 8,239 45,360 39,021 24,596 10,622 2,329	137,846 857 30,725 2,256 4,499 6,419 8,084 9,467 45,948 32,134 18,277 7,949 1,956	44,492 388 10,357 795 1,428 2,166 2,818 3,150 15,091 10,044 5,589 2,417 606	31,944 257 7,454 579 1,019 1,577 2,023 2,256 10,862 7,224 4,038 1,686 423	12,548 131 2,903 216 409 589 795 894 4,229 2,820 1,551 731 183	25,525 121 4,366 287 612 902 1,163 1,402 7,857 6,430 4,289 2,000 462	74.3 52.0 64.9 57.8 61.7 63.8 66.2 67.1 71.6 77.8 80.3 80.1 76.9	6.3 15.0 8.9 11.0 9.2 9.1 8.7 8.2 7.0 5.3 4.6 5.5

¹ Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.

Table 34. Percent of mothers beginning prenatal care in the first trimester and percent of mothers with late or no prenatal care by race and Hispanic origin of mother: United States, each State and territory, 1998

[By place of residence]

		Percent b	eginning ca	re in first t	rimester			ı	Percent late	¹ or no ca	re	
		Wh	ite	Bla	ack			Wi	nite	Bla	ack	
State	All races ²	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ³	All races ²	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ³
United States ⁴	82.8	84.8	87.9	73.3	73.3	74.3	3.9	3.3	2.4	7.0	7.0	6.3
Alabama	82.4	88.3	89.1	70.1	70.1	62.9	3.9	2.3	2.1	7.1	7.1	11.3
Alaska	81.4	83.5	83.7	82.3	82.6	81.3	4.5	3.7	3.7	5.1	*	3.6
Arizona	75.1	76.0	84.7	73.5	73.9	64.7	7.2	6.9	3.4	7.4	7.3	11.5
Arkansas	77.8	80.7	82.0	67.6	67.6	61.6	5.1	4.3	3.6	8.3	8.3	14.0
California	82.4 82.2	82.4	88.2	79.5	79.5	78.1	3.6	3.7	2.4	4.5	4.5	4.6 8.4
Colorado Connecticut	88.0	82.7 89.3	87.9 91.3	75.9 79.0	76.2 79.4	68.3 78.2	4.3 3.0	4.1 2.8	2.6 2.4	6.5 4.6	6.4 4.5	5.3
Delaware	83.4	86.4	88.2	74.2	74.3	69.7	3.6	2.7	2.4	6.1	6.1	6.6
District of Columbia	72.0	84.8	91.0	66.9	66.9	69.5	10.2	5.0	3.5	12.3	12.3	8.2
Florida	83.6	86.9	88.6	72.8	72.7	81.9	3.5	2.6	2.1	6.5	6.6	4.0
Georgia	86.4	90.0	91.4	79.4	79.4	78.2	2.8	1.9	1.5	4.4	4.4	5.7
HawaiiIdaho	85.4 78.7	90.2 79.1	90.9 81.7	91.5 69.1	91.9 68.4	83.5 61.5	3.1 4.4	2.1 4.3	2.0 3.5	*	*	3.7 9.8
Illinois	82.7	85.7	89.7	70.1	70.0	73.7	3.9	2.8	1.9	8.2	8.3	5.6
Indiana	79.9	81.6	82.6	65.3	65.3	64.7	4.0	3.5	3.2	8.4	8.4	8.4
lowa	87.3	87.9	88.6	74.8	74.4	73.0	2.4	2.2	2.0	6.3	6.5	6.5
Kansas	85.8	86.7	89.2	76.1	76.0	68.1	2.8	2.5	1.9	5.7	5.8	7.6
Kentucky	86.4	87.3	87.5	78.0	78.1	73.8	2.5	2.3	2.3	4.2	4.2	6.0
Louisiana	82.2	89.4	89.6	72.1	72.1	85.3	3.9	1.8	1.8	7.0	7.0	2.8
Maine	88.9	89.1	89.3	85.6	85.7	77.9	1.7	1.7	1.6	*	*	*
Maryland	87.8 89.5	91.5 90.9	92.3 92.3	80.3 80.1	80.3 80.0	82.3 79.2	3.0 2.4	1.8 2.0	1.7 1.7	5.2 5.6	5.2 5.8	3.8 4.7
Massachusetts Michigan	84.3	87.1	92.3 88.4	71.1	71.1	72.8	3.4	2.4	2.1	7.9	7.8	6.0
Minnesota	84.5	87.1	87.9	66.7	66.6	63.8	2.9	2.2	2.0	7.9	8.0	8.5
Mississippi	80.6	89.3	89.6	70.2	70.2	73.8	4.0	1.7	1.6	6.7	6.7	7.4
Missouri	86.1	88.2	88.6	74.5	74.5	77.7	2.9	2.1	2.0	6.9	6.9	5.4
Montana	82.3	84.8	84.9	77.3	73.7	78.6	3.2	2.4	2.3	*	*	*
Nebraska	83.9	84.9	86.9	71.0	70.9	68.8	3.2	2.9	2.4	6.7	6.7	7.6
Nevada	74.6	75.3	82.5	66.3	66.5	62.2	7.0	6.8	4.0	9.5	9.4	11.8
New Hampshire	89.7	89.8	90.0	76.9	78.6	78.4	1.9	1.9	1.8	*	*	*
New Jersey New Mexico	81.6 67.6	85.5 69.1	89.6 75.1	65.1 58.5	64.8 59.4	71.0 64.8	4.6 8.5	3.0 7.9	2.1 5.7	11.1 11.1	11.5 11.3	6.3 9.4
New York	81.2	84.4	88.2	70.8	71.0	72.1	4.8	3.7	2.7	8.5	8.5	6.9
North Carolina	84.5	88.1	90.3	75.2	75.2	68.5	2.9	2.0	1.5	5.4	5.4	6.6
North Dakota	85.6	87.3	87.7	78.8	78.8	73.6	2.5	1.9	1.6	*	*	*
Ohio	85.5	87.6	87.9	73.3	73.3	77.4	4.2	3.1	3.0	10.4	10.1	5.7
Oklahoma	78.6	80.7	81.8	69.7	69.6	68.3	5.1	4.5	4.0	7.5	7.6	9.5
Oregon	80.2	80.4	82.8	79.4	79.6	67.2	3.8	3.7	3.2	4.1	4.0	6.7
PennsylvaniaRhode Island	84.8 89.7	87.3 90.9	88.2 92.1	70.8 79.3	70.8 79.9	72.4 82.4	3.5 1.5	2.7 1.3	2.5 1.1	8.4 3.9	8.4 3.2	5.7 2.0
South Carolina	81.4	87.2	88.0	71.0	71.0	65.9	4.2	2.3	2.1	7.5	7.5	8.2
South Dakota	82.7	86.6	86.8	75.3	76.8	74.3	3.2	1.8	1.7	*	*	*
Tennessee	84.1	87.3	88.1	72.7	72.7	64.8	3.6	2.5	2.2	7.7	7.7	11.7
Texas	79.3	79.6	86.9	75.7	75.8	72.7	5.3	5.2	2.7	6.1	6.1	7.6
Utah	82.1	82.9	85.3	64.7	63.6	64.9	4.1	3.7	3.0	10.7	11.5	9.2
Vermont	87.4	87.5	87.6	*	-	85.3	2.0	2.0	2.0	*	*	
Virginia	85.2	88.8	90.2	74.4	74.5	73.2	3.3	2.3	2.0	6.1	6.1	5.8
Washington West Virginia	83.0 83.7	83.6 84.2	85.8 84.2	77.1 70.2	77.3 70.1	71.0 84.0	3.2 2.6	2.9 2.5	2.4 2.5	5.0 5.5	4.9 5.5	6.0
Wisconsin	84.3	87.0	88.0	67.5	67.4	71.9	3.4	2.5	2.5 2.4	8.7	5.5 8.7	6.9
Wyoming	81.3	82.2	83.4	67.3	68.0	70.2	4.1	3.8	3.4	*	*	7.9
Puerto Rico	78.8	79.4		70.5			3.1	2.9		5.5		
Virgin Islands	59.3	60.5	76.6	58.6	57.9	55.0	12.8	11.3	*	13.3	13.4	11.8
Guam	63.0	86.0	86.8	81.8	81.4	83.7	12.7	*	*	*	*	*
American Samoa	26.3	*		*			34.7	*		*		
Northern Marianas	26.3						34.7					

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.
--- Data not available.

1 Care beginning in 3rd trimester.
2 Includes races other than white and black and origin not stated.
3 Includes all persons of Hispanic origin of any race.
4 Excludes data for the territories.

NOTE: Data on prenatal care are not available for American Samoa. Data on month prenatal care began for the Northern Marianas are substantially incomplete; see Table I in the Technical notes.

Table 35. Live births by month of pregnancy prenatal care began, number of prenatal visits, and median number of visits, by race and Hispanic origin of mother: United States, 1998

Number of prenatal visits and race and Hispanic origin of mother All races ¹ No visits 1-2 visits 3-4 visits 5-6 visits	All births 3,941,553 46,163 40,129 81,456	Total 3,174,194	1st trimester 1st and 2d months 2.447.530	3d month	2d trimester 4th-6th		ate or no care 7th-9th		Not
All races ¹	3,941,553 46,163 40,129 81,456		months				74h 04h	Ma	
No visits	46,163 40,129 81,456	3,174,194	2 447 520		months	Total	months	No care	stated
1-2 visits 3-4 visits	40,129 81,456		2,447,530	726,664	508,373	149,645	103,482	46,163	109,341
1-2 visits 3-4 visits	40,129 81,456					46,163		46,163	
3-4 visits	81,456	10,169	6,759	3,410	9,555	18,590	18,590		1,815
		23,484	13,592	9,892	29,224	26,300	26,300		2,448
	173,204	73,036	43,023	30,013	70,857	25,585	25,585		3,726
7-8 visits	322,025	193,674	120,072	73,602	108,180	15,267	15,267		4,904
9-10 visits	744,757	585,338	394,745	190,593	141,672	8,584	8,584		9,163
11-12 visits	1,015,918	926,001	715,554	210,447	80,158	3,459	3,459		6,300
13-14 visits	661,925	627,752	522,544	105,208	29,593	1,489	1,489		3,091
15-16 visits	470,439	447,895	385,947	61,948	19,322	1,097	1,097		2,125
17-18 visits	98,254	93,993	80,638	13,355	3,541	227	227		493
19 visits or more	145,813	138,506	122,566	15,940	6,065	414	414		828
Not stated	141,470	54,346	42,090	12,256	10,206	2,470	2,470		74,448
Median number of visits	12.3	12.6	12.8	11.7	9.6	5.4	5.4		10.3
White, total	3,118,727	2,581,679	2,009,201	572,478	362,420	99,608	71,460	28,148	75,020
No visits	28,148					28,148		28,148	
1-2 visits	28,148 24,852	6,430	4,395	2,035	5,391	11,936	11,936	,	1.095
3-4 visits	52,685	15,177	8,840	,	,	17,812	17,812	•••	,
5-6 visits				6,337	18,141	17,812		•••	1,555
	119,865	51,610	30,524	21,086	47,797	,	17,899	•••	2,559
7-8 visits	242,719	150,669	94,359	56,310	77,587	10,939	10,939		3,524
9-10 visits	584,906	468,943	319,499	149,444	103,085	6,167	6,167		6,711
11-12 visits	834,184	766,559	596,766	169,793	60,071	2,623	2,623		4,931
13-14 visits	551,155	525,128	438,628	86,500	22,431	1,143	1,143		2,453
15-16 visits	381,674	364,992	316,003	48,989	14,257	825	825		1,600
17-18 visits	81,358	78,124	67,359	10,765	2,652	179	179		403
19 visits or more Not stated	118,371 98,810	113,168 40,879	100,847 31,981	12,321 8,898	4,264 6,744	308 1,629	308 1,629		631 49,558
Median number of visits	12.4	12.7	12.9	11.8	9.8	5.6	5.6		10.5
White, non-Hispanic	2,361,462	2,035,753	1,614,399	421,354	223,984	55,044	39,644	15,400	46,681
•	, ,	2,000,700	1,011,000	.2.,00.	220,00	,	00,011	,	.0,001
No visits	15,400	0.745				15,400		15,400	
1-2 visits	13,544	3,715	2,599	1,116	2,879	6,342	6,342		608
3-4 visits	29,612	9,310	5,616	3,694	9,966	9,391	9,391		945
5-6 visits	73,330	34,735	21,264	13,471	27,389	9,637	9,637		1,569
7-8 visits	165,698	110,470	70,953	39,517	46,575	6,329	6,329		2,324
9-10 visits	423,393	351,294	245,321	105,973	63,744	3,694	3,694		4,661
11-12 visits	664,928	618,680	488,542	130,138	40,777	1,732	1,732		3,739
13-14 visits	449,153	430,696	362,310	68,386	15,774	787	787		1,896
15-16 visits	302,682	291,899	255,652	36,247	8,976	553	553		1,254
17-18 visits	66,862	64,502	56,073	8,429	1,924	116	116		320
19 visits or more Not stated	97,241 59,619	93,714 26,738	84,189 21,880	9,525 4,858	2,836 3,144	208 855	208 855		483 28,882
Median number of visits	12.5	12.7	12.9	11.9	10.0	5.7	5.7		10.6
Black, total	609,902	428,102	314,811	113,291	115,158	40,793	24,904	15,889	25,849
		.20, .02	0.1,011	,20.	110,100		2 .,00 .		20,010
No visits	15,889					15,889		15,889	
1-2 visits	12,665	3,131	1,983	1,148	3,571	5,375	5,375		588
3-4 visits	22,996	6,680	3,792	2,888	9,000	6,600	6,600		716
5-6 visits	41,540	16,653	9,768	6,885	18,069	5,909	5,909		909
7-8 visits	58,547	30,704	18,353	12,351	23,531	3,274	3,274		1,038
9-10 visits	117,402	83,508	53,716	29,792	30,227	1,865	1,865		1,802
11-12 visits	127,800	110,504	81,582	28,922	15,707	621	621		968
13-14 visits	78,877	72,560	58,984	13,576	5,618	242	242		457
15-16 visits	66,274	61,439	51,518	9,921	4,231	205	205		399
17-18 visits	12,686	11,861	9,852	2,009	721	35	35		69
19 visits or more	21,864	20,085	17,110	2,975	1,543	83	83		153
Not stated	33,362	10,977	8,153	2,824	2,940	695	695		18,750
									_
Median number of visits	11.8	12.5	12.7	11.2	9.2	5.0	5.0		9.6

Table 35. Live births by month of pregnancy prenatal care began, number of prenatal visits, and median number of visits, by race and Hispanic origin of mother: United States, 1998 --Con.

				Month of	pregnancy pre	enatal care be	egan		
Number of prenatal visits	All		1st trimester		2d trimester	L	ate or no care		A
and race and Hispanic origin of mother	births -	Total	1st and 2d months	3d month	4th-6th months	Total	7th-9th months	No care	Not stated
Black, non-Hispanic	593,127	416,966	306,711	110,255	112,080	39,683	24,081	15,602	24,398
No visits	15.602					15,602		15,602	
1-2 visits	12,396	3.075	1.944	1.131	3,499	5,252	5,252	-,	570
3-4 visits	22,458	6.548	3.713	2,835	8.809	6,417	6,417		684
5-6 visits	40.400	16,230	9,508	6.722	17.603	5.707	5.707		860
7-8 visits	56,687	29,752	17,803	11,949	22,843	3,129	3,129		963
9-10 visits	113,495	80,717	51,823	28,894	29,331	1,772	1,772		1,675
11-12 visits	124,274	107,504	79,317	28,187	15,290	591	591		889
13-14 visits	77.067	70,948	57.735	13,213	5,465	232	232		422
15-16 visits	64,904	60,189	50,482	9.707	4,135	196	196		384
17-18 visits	12,411	11,611	9.648	1.963	703	33	33		64
19 visits or more	21.456	19.703	16,786	2,917	1.521	82	82		150
Not stated	31,977	10,689	7,952	2,737	2,881	670	670		17,737
Median number of visits	11.8	12.5	12.8	11.2	9.2	5.0	5.0		9.6
Hispanic ²	734,661	526,798	378,969	147,829	137,846	44,492	31,944	12,548	25,525
No visits	12,548					12,548		12,548	
1-2 visits	11,305	2,699	1,785	914	2,528	5.604	5,604		474
3-4 visits	23,141	5,844	3,224	2.620	8,211	8,481	8,481		605
5-6 visits	46,590	16,828	9,243	7.585	20.501	8.288	8.288		973
7-8 visits	76,117	39,427	22,837	16.590	30,860	4,659	4,659		1.171
9-10 visits	158.317	114.571	71,719	42.852	39,206	2,483	2,483		2.057
11-12 visits	162,319	141,206	102,813	38,393	19,061	886	886		1,166
13-14 visits	97,640	90,218	72,759	17,459	6,534	348	348		540
15-16 visits	76,397	70,553	58.103	12.450	5,248	272	272		324
17-18 visits	13,915	13,064	10,823	2,241	715	64	64		72
19 visits or more	20.377	18,717	15,985	2.732	1.418	101	101		141
Not stated	35,995	13,671	9,678	3,993	3,564	758	758		18,002
Median number of visits	11.6	12.4	12.7	11.1	9.4	5.4	5.4		10.0

Category not applicable.
 Includes races other than white and black and origin not stated.
 Includes all persons of Hispanic origin of any race.

Table 36. Live births to mothers with selected obstetric procedures and rates by age of mother, by race of mother: United States, 1998 [Rates are number of live births with specified procedure per 1,000 live births in specified group]

	4.11	Obstetric			,	Age of moth	er			
Obstetric procedure and race of mother	All births	procedure reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated
All races ¹										
Amniocentesis Electronic fetal monitoring Induction of labor Stimulation of labor Tocolysis Ultrasound	3,941,553 3,941,553 3,941,553 3,941,553 3,941,553 3,941,553	112,778 3,278,992 751,389 694,303 89,120 2,538,927	28.9 839.8 192.4 177.8 22.8 650.3	7.5 849.4 173.9 189.0 24.8 625.5	9.0 845.3 188.8 183.5 23.7 639.9	12.9 842.0 200.8 180.2 22.5 658.2	24.5 836.2 196.8 173.0 21.6 661.2	121.0 824.3 191.8 161.3 21.8 659.8	168.0 808.1 192.5 150.4 22.9 647.6	37,033 37,033 37,033 37,033 37,033 37,033
White										
Amniocentesis Electronic fetal monitoring Induction of labor Stimulation of labor Tocolysis Ultrasound	3,118,727 3,118,727 3,118,727 3,118,727 3,118,727 3,118,727	95,579 2,603,263 630,676 560,376 71,229 2,052,224	30.9 842.6 204.1 181.4 23.1 664.2	7.9 851.6 186.8 196.1 25.8 644.1	9.1 847.5 201.9 188.5 24.2 654.8	13.1 845.3 212.1 183.4 22.8 671.0	25.3 840.2 206.7 175.7 21.7 672.2	127.3 827.9 201.1 164.1 21.5 671.4	179.4 811.0 200.9 154.4 22.7 658.3	29,171 29,171 29,171 29,171 29,171
Black										
Amniocentesis Electronic fetal monitoring Induction of labor Stimulation of labor Tocolysis Ultrasound	609,902 609,902 609,902 609,902 609,902	9,998 509,250 91,037 98,086 13,103 359,350	16.5 840.2 150.2 161.8 21.6 592.9	6.3 850.1 144.1 173.8 21.5 580.8	8.6 845.9 147.3 167.7 21.7 590.8	12.0 838.1 154.9 159.8 21.0 599.9	18.7 829.0 154.3 150.4 21.5 602.6	69.9 823.3 153.5 140.8 23.5 594.6	93.9 815.5 164.8 127.9 23.5 592.7	3,778 3,778 3,778 3,778 3,778 3,778

¹ Includes races other than white and black.

NOTE: Race and Hispanic origin are reported separately on the birth certificate. Persons of Hispanic origin may be of any race. Data for persons of Hispanic origin are included in the data for each race group according to the mother's reported race; see Technical notes.

Table 37. Live births to mothers with selected complications of labor and/or delivery and rates by age of mother, by race of mother: United States, 1998

[Rates are number of live births with specified complication per 1,000 live births in specified group]

		0 " "			A	ge of moth	er			
Complication and race of mother	All births ¹	Complication reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated
All races ²										
Febrile	3,941,553	59,633	15.3	18.3	15.6	15.6	14.6	12.6	11.6	47,091
Meconium, moderate/heavy	3,941,553	214,627	55.1	59.6	55.3	53.5	53.6	56.0	59.0	47,091
Premature rupture of membrane	3,941,553	104,453	26.8	27.7	25.5	26.1	27.0	29.2	32.4	47.091
Abruptio placenta	3,941,553	21,834	5.6	5.3	5.1	5.2	5.8	6.9	8.9	47.091
Placenta previa	3,941,553	12,408	3.2	1.1	1.8	2.9	4.3	6.3	8.5	47,091
Other excessive bleeding	3,941,553	23,198	6.0	5.4	5.6	5.9	6.1	6.9	8.1	47,091
Seizures during labor	3,941,553	1,359	0.3	0.8	0.4	0.2	0.2	0.3	0.3	47,091
Precipitous labor	3,941,553	79,933	20.5	14.5	19.2	20.7	22.8	24.4	25.1	47,091
Prolonged labor	3,941,553	31,922	8.2	8.7	8.3	8.2	8.0	7.8	8.5	47,091
Dysfunctional labor	3,941,553	106,709	27.4	26.1	26.0	28.0	28.2	28.4	31.0	47,091
Breech/Malpresentation	3,941,553	150,685	38.7	29.4	31.9	38.6	44.2	49.8	57.8	47,091
Cephalopelvic disproportion	3,941,553	75,406	19.4	18.0	17.5	20.3	20.5	20.0	20.7	47,091
Cord prolapse	3,941,553	7,833	2.0	1.6	1.8	1.9	2.2	2.6	2.9	47,091
Anesthetic complication 3	3,599,270	2,091	0.6	0.4	0.5	0.6	0.7	0.7	0.7	49,580
Fetal distress ³	3,599,270	140,844	39.7	43.7	38.5	37.7	38.9	42.6	48.7	49,580
White										
Febrile	3,118,727	45,045	14.6	17.4	15.1	15.0	14.0	11.8	10.9	37,880
Meconium, moderate/heavy	3,118,727	156,452	50.8	53.4	50.8	49.5	49.9	52.3	56.0	37,880
Premature rupture of membrane	3,118,727	79,701	25.9	26.0	24.4	25.4	26.2	28.2	31.6	37,880
Abruptio placenta	3,118,727	16,590	5.4	5.2	4.9	5.0	5.5	6.6	8.7	37,880
Placenta previa	3,118,727	9,696	3.1	1.1	1.8	2.7	4.2	6.0	7.9	37,880
Other excessive bleeding	3,118,727	18,511	6.0	5.7	5.7	5.9	6.0	6.7	8.1	37,880
Seizures during labor	3,118,727	947	0.3	0.7	0.4	0.2	0.2	0.3	0.3	37,880
Precipitous labor	3,118,727	62,200	20.2	13.3	18.2	20.2	22.8	24.5	25.5	37,880
Prolonged labor	3,118,727	25,930	8.4	9.0	8.7	8.4	8.1	8.0	8.7	37,880
Dysfunctional labor	3,118,727	85,116	27.6	26.1	26.3	28.3	28.2	28.2	31.1	37,880
Breech/Malpresentation	3,118,727	125,303	40.7	32.2	33.6	40.3	45.6	50.8	58.9	37,880
Cephalopelvic disproportion	3,118,727	61,677	20.0	18.7	18.6	21.1	20.7	20.1	20.8	37,880
Cord prolapse	3,118,727	6,103	2.0	1.5	1.8	1.9	2.1	2.6	2.8	37,880
Anesthetic complication ³	2,826,910	1,674	0.6	0.5	0.5	0.6	0.7	0.7	0.7	39,967
Fetal distress 3	2,826,910	104,826	37.6	40.7	36.6	36.0	36.8	40.6	46.6	39,967
Black										
Febrile	609,902	10,035	16.6	20.3	16.4	15.8	14.7	13.7	12.8	4,861
Meconium, moderate/heavy	609,902	46,722	77.2	76.3	73.1	78.0	81.8	84.3	82.6	4,861
Premature rupture of membrane	609,902	18,944	31.3	31.2	28.9	30.4	33.8	37.3	39.5	4,861
Abruptio placenta	609,902	4,176	6.9	5.9	6.3	6.7	8.1	9.3	11.9	4,861
Placenta previa	609,902	1,791	3.0	1.1	1.9	3.4	4.7	6.6	9.9	4,861
Other excessive bleeding	609,902	2,794	4.6	3.8	4.4	4.4	4.9	7.4	6.9	4,861
Seizures during labor	609,902	346	0.6	1.0	0.5	0.4	0.4	*	*	4,861
Precipitous labor	609,902	13,208	21.8	16.8	22.1	24.1	23.4	24.2	24.1	4,861
Prolonged labor	609,902	3,970	6.6	7.4	6.5	6.4	6.2	5.7	6.9	4,861
Dysfunctional labor	609,902	15,677	25.9	25.7	24.5	25.8	27.6	28.5	29.2	4,861
Breech/Malpresentation	609,902	18,239	30.1	22.4	25.7	31.3	37.7	46.6	53.5	4,861
Cephalopelvic disproportion	609,902	9,231	15.3	16.5	13.7	15.0	16.7	15.7	17.2	4,861
Cord prolapse	609,902	1,334	2.2	1.8	1.8	2.4	2.9	2.9	3.1	4,861
Anesthetic complication ³	569,690	320	0.6	0.4	0.5	0.5	0.7	1.0	CE 4	5,216
Fetal distress 3	569,690	29,165	51.7	52.4	47.1	49.9	56.6	60.6	65.1	5,216

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.

1 Total number of births to residents of areas reporting specified complication.

2 Includes races other than white and black.

3 Texas does not report this complication.

NOTE: Race and Hispanic origin are reported separately on the birth certificate. Persons of Hispanic origin may be of any race. Data for persons of Hispanic origin are included in the data for each race group according to the mother's reported race; see Technical notes.

Table 38. Live births by attendant, place of delivery, and race and Hispanic origin of mother: United States, 1998

			Physician			Midwife			
Place of delivery and race and Hispanic origin of mother	All births	Total	Doctor of medicine	Doctor of osteopathy	Total	Certified nurse midwife	Other midwife	Other	Unspecified
All races ¹									
Total	3,941,553	3,625,043	3,468,219	156,824	293,386	277,811	15,575	21,852	1,272
In hospital ² Not in hospital Freestanding birthing center Clinic or doctor's office Residence Other Not specified	3,903,770 37,049 10,693 857 23,232 2,267 734	3,619,406 5,517 1,767 336 2,664 750 120	3,463,660 4,453 1,121 265 2,349 718 106	155,746 1,064 646 71 315 32	272,261 20,897 8,714 233 11,634 316 228	268,288 9,322 6,175 144 2,840 163 201	3,973 11,575 2,539 89 8,794 153 27	11,516 10,101 206 282 8,538 1,075 235	587 534 6 6 396 126
White, total	734	120	100	14	220	201	21	233	131
Total	3,118,727	2,871,663	2,736,866	134,797	229,429	215,104	14,325	16,753	882
In hospital ²	3,085,755 32,307 10,090 733 20,019 1,465 665	2,867,476 4,080 1,699 268 1,730 383 107	2,733,707 3,064 1,057 202 1,446 359 95	133,769 1,016 642 66 284 24	209,329 19,880 8,202 222 11,178 278 220	206,250 8,661 5,746 136 2,644 135 193	3,079 11,219 2,456 86 8,534 143 27	8,523 8,007 184 240 6,846 737 223	427 340 5 3 265 67 115
White, non-Hispanic									
Total	2,361,462	2,189,411	2,078,392	111,019	158,883	147,004	11,879	12,579	589
In hospital ² Not in hospital Freestanding birthing center Clinic or doctor's office Residence Other Not specified	2,334,394 26,541 7,425 637 17,499 980 527	2,185,841 3,477 1,529 238 1,450 260 93	2,075,821 2,489 892 176 1,181 240 82	110,020 988 637 62 269 20 11	142,388 16,301 5,754 165 10,176 206 194	139,851 6,984 4,459 86 2,365 74 169	2,537 9,317 1,295 79 7,811 132 25	5,822 6,548 140 231 5,693 484 209	343 215 2 3 180 30 31
Black, total									
Total	609,902	559,799	543,140	16,659	46,043	45,158	885	3,754	306
In hospital ² Not in hospital Freestanding birthing center Clinic or doctor's office Residence Other Not specified	606,286 3,559 395 53 2,505 606 57	558,639 1,152 23 30 813 286 8	542,013 1,119 21 29 789 280 8	16,626 33 2 1 24 6	45,425 610 357 5 225 23	44,688 462 303 5 133 21 8	737 148 54 - 92 2	2,093 1,652 14 15 1,370 253	129 145 1 3 97 44 32
Black, non-Hispanic									
Total	593,127	545,774	529,866	15,908	43,425	42,558	867	3,644	284
In hospital ² Not in hospital Freestanding birthing center Clinic or doctor's office Residence Other Not specified	589,660 3,425 371 53 2,418 583 42	544,648 1,118 23 30 788 277 8	528,773 1,085 21 29 764 271 8	15,875 33 2 1 24 6	42,847 570 334 5 211 20 8	42,121 429 283 5 123 18 8	726 141 51 - 88 2	2,036 1,600 13 15 1,327 245	129 137 1 3 92 41 18
Hispanic ³									
Total	734,661	661,440	638,798	22,642	69,347	67,103	2,244	3,734	140
In hospital ² Not in hospital Freestanding birthing center Clinic or doctor's office Residence Other Not specified	729,638 5,001 2,654 93 1,827 427 22	660,892 543 167 29 236 111 5	638,277 517 163 25 222 107 4	22,615 26 4 4 14 4	66,040 3,300 2,440 56 742 62 7	65,536 1,562 1,279 50 183 50	504 1,738 1,161 6 559 12	2,653 1,076 44 8 794 230 5	53 82 3 - 55 24 5

⁻ Quantity zero.

1 Includes races other than white and black and origin not stated.

2 Includes births occurring en route to or on arrival at hospital.

3 Includes all persons of Hispanic origin of any race.

Table 39. Live births by method of delivery and rates of cesarean delivery and vaginal birth after previous cesarean delivery, by race and Hispanic origin of mother: United States, 1989-98

			Births by	method of de	elivery			Cesarean	delivery rate	Rate of
Year and race and Hispanic origin	All	Vagi	inal .		Cesarean		Not			vaginal birth after
of mother	births	Total	After previous cesarean	Total	Primary	Repeat	stated	Total ¹	Primary ²	previous cesarean ³
All races ⁴										
1998	3,941,553	3,078,537	108,903	825,870	519,975	305,895	37,146	21.2	14.9	26.3
1997	3,880,894	3,046,621	112,145	799,033	502,526	296,507	35,240	20.8	14.6	27.4
1996	3,891,494	3,061,092	116,045	797,119	503,724	293,395	33,283	20.7	14.6	28.3
1995	3,899,589	3,063,724	112,439	806,722	510,104	296,618	29,143	20.8	14.7	27.5
1994	3,952,767	3,087,576	110,341	830,517	520,647	309,870	34,674	21.2	14.9	26.3
1993 1992	4,000,240 4,065,014	3,098,796 3,100,710	103,581 97,549	861,987 888,622	539,251 554,662	322,736 333,960	39,457 75,682	21.8 22.3	15.3 15.6	24.3 22.6
1991	4,110,907	3,100,710	90,690	905,077	569,195	335,882	104,939	22.6	15.0	21.3
1990 5	4,110,563	3,111,421	84,299	914,096	575,066	339,030	85,046	22.7	16.0	19.9
1989 ⁶	3,798,734	2,793,463	71,019	826,955	521,873	305,082	178,316	22.8	16.1	18.9
White, total										
1998	3,118,727	2,440,113	86,495	649,987	406,439	243,548	28,627	21.0	14.7	26.2
1997	3,072,640	2,415,236	89,522	630,613	393,603	237,010	26,791	20.7	14.5	27.4
1996	3,093,057	2,434,079	93,783	631,409	395,851	235,558	27,569	20.6	14.5	28.5
1995	3,098,885	2,435,191	90,940	639,818	401,098	238,720	23,876	20.8	14.6	27.6
1994	3,121,004	2,435,965	88,471	656,400	407,946	248,454	28,639	21.2	14.8	26.3
1993	3,149,833	2,435,229	82,995	682,355	423,540	258,815	32,249	21.9	15.3	24.3
1992 1991	3,201,678 3,241,273	2,434,959 2,434,900	77,977 72,564	705,841 723,088	437,398 452,534	268,443 270,554	60,878 83,285	22.5 22.9	15.7 16.1	22.5 21.1
1990 5	3,252,473	2,453,857	67,191	732,713	458,656	274,057	65,903	23.0	16.1	19.7
1989 6	3,022,537	2,212,843	56,851	667,114	418,177	248,937	142,580	23.2	16.2	18.6
White, non-Hispanic										
1998	2,361,462	1,842,420	67,787	495,550	315,138	180,412	23,492	21.2	15.1	27.3
1997	2,333,363	1,829,213	70,284	481,982	305,605	176,377	22,168	20.9	14.8	28.5
1996	2,358,989	1,851,058	73,973	485,530	308,482	177,048	22,401	20.8	14.8	29.5
1995	2,382,638	1,867,024	72,124	496,103	313,933	182,170	19,511	21.0	14.9	28.4
1994	2,438,855	1,896,609	71,597	518,021	324,236	193,785	24,225	21.5	15.1	27.0
1993	2,472,031	1,902,433	67,536	542,013	338,236	203,777	27,585	22.2	15.6	24.9
1992 ⁸ 1991 ⁸ 1990 ^{5, 9}	2,527,207 2,589,878	1,916,414 1,941,726	63,828 60,174	566,788 587,802	352,470 368,721	214,318 219,081	44,005 60,350	22.8 23.2	16.0 16.4	22.9 21.5
1991	2,626,500	1,941,726	55,952	603,467	378,508	224,959	50,330	23.4	16.5	19.9
1989 6, 10	2,526,367	1,806,753	47,559	556,585	349,858	206,727	163,029	23.6	16.6	18.7
Black, total										
1998	609,902	470,088	17,062	135,727	86,438	49,289	4,087	22.4	16.0	25.7
1997	599,913	466,001	16,986	130,142	83,025	47,117	3,770	21.8	15.6	26.5
1996	594,781	462,378	16,866	128,357	82,646	45,711	4,046	21.7	15.6	27.0
1995	603,139	468,984	16,224	130,482	84,441	46,041	3,673	21.8	15.7	26.1
1994	636,391	493,879	16,970	138,067	88,636	49,431	4,445	21.8	15.7	25.6
1993	658,875	509,816	16,179	143,452	91,677	51,775	5,607	22.0	15.7	23.8
1992	673,633	514,929	15,382	146,480	93,165	53,315	12,224	22.1	15.7	22.4
1991 1990 ⁵	682,602	519,047	14,213	145,583	92,645	52,938	17,972	21.9	15.5	21.2
1989 ⁶	679,236 611,147	516,581 452,291	13,496 11,104	146,472 127,907	93,476 82,695	52,996 45,212	16,183 30,319	22.1 22.0	15.7 15.8	20.3 19.7
Black, non-Hispanic	,	- , -	, -	,	,,,,,	-,	,-			
1998	593,127	457,186	16,510	131,999	84,169	47,830	3,942	22.4	16.0	25.7
1997	581,431	451,744	16,353	126,138	80,599	45,539	3,549	21.8	15.6	26.4
1996	578,099	449,544	16,322	124,836	80,457	44,379	3,719	21.7	15.7	26.9
1995	587,781	457,104	15,721	127,171	82,395	44,776	3,506	21.8	15.7	26.0
1994	619,198	480,551	16,478	134,526	86,411	48,115	4,121	21.9	15.7	25.5
1993	641,273	496,333	15,675	139,702	89,315	50,387	5,238	22.0	15.7	23.7
1992 8	657,450	502,669	14,950	143,153	91,086	52,067	11,628	22.2	15.7	22.3
1991 8	666,758	507,522	13,847	142,417	90,664	51,753	16,819	21.9	15.5	21.1
1990 5, 9	661,701	503,720	13,157	142,838	91,175	51,663	15,143	22.1	15.7	20.3
1989 ^{6, 10}	611,269	440,310	10,726	125,290	81,177	44,113	45,669	22.2	15.9	19.6
	,	-,-	-, -	.,	, .	, -	-,			

Table 39. Live births by method of delivery and rates of cesarean delivery and vaginal birth after previous cesarean delivery, by race and Hispanic origin of mother: United States, 1989-98 -- Con.

_			Births by	method of de	livery			Cesarean	delivery rate	- Data of
Year and race	_	Vagi	nal		Cesarean			Total ¹		Rate of vaginal birth
and Hispanic origin of mother	All births	Total	After previous cesarean	Total	Primary	Repeat	Not stated		Primary ²	after previous cesarean ³
Hispanic ⁷										
1998	734,661	580,143	17,803	150,317	88,763	61,554	4,201	20.6	13.6	22.4
1997	709,767	563,114	17,942	142,907	84,410	58,497	3,746	20.2	13.4	23.5
1996	701,339	558,105	18,491	139,554	83,392	56,162	3,680	20.0	13.4	24.8
1995	679,768	539,731	17,396	136,640	82,662	53,978	3,397	20.2	13.7	24.4
1994	665,026	525,928	16,206	135,569	81,961	53,608	3,529	20.5	13.9	23.2
1993	654,418	514,493	14,586	136,279	82,576	53,703	3,646	20.9	14.2	21.4
1992 ⁸	643,271	494,338	13,111	133,369	81,211	52,158	15,564	21.2	14.4	20.1
1991 ⁸	623,085	472,126	11,615	129,752	80,228	49,524	21,207	21.6	14.8	19.0
1990 ^{5, 9}	595,073	458,242	10,395	122,969	76,027	46,942	13,862	21.2	14.5	18.1
1989 ^{6, 10}	532,249	385,462	8,549	105,268	64,905	40,363	41,519	21.5	14.7	17.5

Percent of all live births by cesarean delivery.

Number of primary cesareans per 100 live births to women who have not had a previous cesarean.

Number of vaginal births after previous cesarean delivery per 100 live births to women with a previous cesarean delivery.

Includes races other than white and black and origin not stated.

Excludes data for Oklahoma, which did not report method of delivery on the birth certificate.

Excludes data for Louisiana, Maryland, Nebraska, Nevada, and Oklahoma, which did not report method of delivery on the birth certificate.

Includes all persons of Hispanic origin of any race.

Excludes data for New Hampshire which did not report Hispanic origin.

Excludes data for New Hampshire and Oklahoma which did not report Hispanic origin.

Excludes data for Louisiana, New Hampshire, and Oklahoma, which did not report Hispanic origin.

			Births by	method of de	livery			Cesarean	delivery rate	. Doto of
Age and race and Hispanic		Vagi	nal		Cesarean					Rate of vaginal
origin of mother	All births	Total	After previous cesarean	Total	Primary	Repeat	Not stated	Total ¹	Primary ²	birth after previous cesarean ³
All races 4	3,941,553	3,078,537	108,903	825,870	519,975	305,895	37,146	21.2	14.9	26.3
Under 20 years	494.357	418.743	3.614	71.195	63.425	7,770	4.419	14.5	13.3	31.7
20-24 years	965,122	789,395	20.742	166,403	114.822	51,581	9,324	17.4	13.0	28.7
25-29 years	1,083,010	847,952	31,292	224,878	140,031	84,847	10,180	21.0	14.6	26.9
	889,365	666,110	32,966	215,010	121,144	93,866	8,245	24.4	16.1	26.0
30-34 years	424,890	300,150	17,228	120,604	64,451	56,153	4,136	28.7	18.6	23.5
35-39 years							842			
40-54 years	84,809	56,187	3,061	27,780	16,102	11,678	042	33.1	23.3	20.8
White, total	3,118,727	2,440,113	86,495	649,987	406,439	243,548	28,627	21.0	14.7	26.2
Under 20 years	345,495	294,036	2,174	48,452	43,524	4,928	3,007	14.1	13.0	30.6
20-24 years	736,664	604,682	14,991	125,070	87,234	37,836	6,912	17.1	12.9	28.4
25-29 years	880,688	691,236	24,889	181,313	113,175	68,138	8,139	20.8	14.5	26.8
30-34 years	737,532	555,115	27,408	175,776	98,335	77,441	6,641	24.0	15.7	26.1
35-39 years	349,799	249,156	14,466	97,363	51,490	45,873	3,280	28.1	18.0	24.0
40-54 years	68,549	45,888	2,567	22,013	12,681	9,332	648	32.4	22.6	21.6
White, non-Hispanic	2,361,462	1,842,420	67,787	495,550	315,138	180,412	23,492	21.2	15.1	27.3
Under 20 years	221.301	187,475	1.287	31.520	28.770	2.750	2.306	14.4	13.4	31.9
20-24 years	511,101	418,333	10,234	87,174	62,220	24,954	5,594	17.2	13.2	29.1
25-29 years	678,227	532,733	18,854	138,657	89,758	48,899	6,837	20.7	14.9	27.8
30-34 years	603,639	456,854	22,735	141,278	81,273	60,005	5,507	23.6	15.8	27.5
35-39 years	291,202	209,283	12,451	79,175	42,683	36,492	2,744	27.4	17.8	25.4
40-54 years	55,992	37,742	2,226	17,746	10,434	7,312	504	32.0	22.7	23.3
Black, total	609,902	470,088	17,062	135,727	86,438	49,289	4,087	22.4	16.0	25.7
Under 20 years	131,226	109,684	1,312	20,758	18,091	2,667	784	15.9	14.3	33.0
20-24 years	189,088	151,617	5,057	36,110	23,663	12,447	1,361	19.2	13.9	28.9
25-29 years	139,302	105,613	5,002	32,754	19,024	13,730	935	23.7	15.9	26.7
30-34 years	93,785	66,272	3,684	26,873	14,926	11,947	640	28.9	19.3	23.6
35-39 years	46,657	30,754	1,715	15,614	8,589	7,025	289	33.7	22.8	19.6
40-54 years	9,844	6,148	292	3,618	2,145	1,473	78	37.0	26.8	16.5
Black, non-Hispanic	593,127	457,186	16,510	131,999	84,169	47,830	3,942	22.4	16.0	25.7
Under 20 years	128,280	107,166	1,281	20,350	17,718	2,632	764	16.0	14.3	32.7
20-24 years	184,263	147,727	4,915	35,222	23,040	12,182	1,314	19.3	13.9	28.7
25-29 years	135,158	102,471	4,833	31,779	18,477	13,302	908	23.7	15.9	26.7
30-34 years	90,827	64,160	3,548	26,054	14,530	11,524	613	28.9	19.3	23.5
35-39 years	45,096	29,703	1,649	15,121	8,342	6,779	272	33.7	22.9	19.6
40-54 years	9,503	5,959	284	3,473	2,062	1,411	71	36.8	26.7	16.8
Hispanic ⁵	734,661	580,143	17,803	150,317	88,763	61,554	4,201	20.6	13.6	22.4
Under 20 years	124,104	106,475	898	16,896	14,736	2,160	733	13.7	12.2	29.4
20-24 years	223,113	184,168	4,692	37,683	24,909	12,774	1,262	17.0	12.2	26.9
25-29 years	196,012	153,363	5,819	41,594	22,658	18,936	1,055	21.3	13.3	23.5
30-34 years	125,702	92,030	4,316	32,915	16,082	16,833	757	26.3	15.5	20.4
35-39 years	54,195	36,690	1,779	17,179	8,257	8,922	326	31.9	19.1	16.6
	11,535	7,417	299	4,050	2,121	1,929	68	35.3	23.0	13.4

Percent of all live births by cesarean delivery.

Number of primary cesareans per 100 live births to women who have not had a previous cesarean.

Number of vaginal births after previous cesarean delivery per 100 live births to women with a previous cesarean delivery.

Includes races other than white and black and origin not stated.

Includes all persons of Hispanic origin of any race.

Table 41. Rates of cesarean delivery and vaginal birth after previous cesarean delivery by race and Hispanic origin of mother: United States, each State and territory, 1998

[By place of residence]

		С	esarean del	livery rate	1		R	ate of vagi	inal births af	ter previou	ıs cesareaı	1 2
		WI	nite	Bla	nck			W	nite	Bla	ack	
State	All races ³	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ⁴	All races 3	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ⁴
United States 5	21.2	21.0	21.2	22.4	22.4	20.6	26.3	26.2	27.3	25.7	25.7	22.4
AlabamaAlaska	24.0 14.7	24.7 16.5	24.8 16.4	22.8 18.0	22.8 17.9	20.7 17.6	21.6 35.2	21.1 29.5	20.8 29.6	22.6	22.6	29.2
Arizona	17.0	17.2	18.3	20.1	20.1	15.6	23.9	22.2	23.7	23.0	23.7	20.5
Arkansas	24.9	24.7	25.0	26.1	26.1	20.8	19.5	19.1	18.5	20.3	20.3	29.5
California	21.7	21.6	22.5	24.8	24.9	20.9	18.4	18.4	19.8	16.2	16.0	17.4
Colorado	16.4	16.4	16.7	16.9	17.1	15.7	34.9	34.9	34.4	33.5	33.5	36.0
Connecticut	20.1	20.1	20.4	20.6	20.7	18.7	31.8	32.3	32.8	29.0	28.7	31.6
Delaware	23.2	22.7	23.3	24.8	24.8	18.2	30.8	32.0	30.0	28.7	28.7	49.5
District of Columbia Florida	20.8 22.4	17.8 22.9	21.3 22.1	22.1 21.2	22.0 21.1	12.2 24.9	25.6 22.8	24.5 22.7	25.0	25.4 22.8	25.3 23.1	17.0
Georgia	20.8	20.7	21.3	21.5	21.5	15.1	23.3	23.6	23.3	22.5	22.4	24.8
Hawaii	15.6	16.8	16.4	18.7	19.1	17.1	39.7	33.3	33.8	*	*	37.4
Idaho	15.7	15.6	15.5	*	*	16.5	36.4	36.7	36.1	*	*	39.4
Illinois	19.4	19.4	20.3	19.5	19.5	16.9	31.6	32.2	31.9	28.5	28.5	33.4
Indiana	20.0	20.0	20.0	19.9	19.9	20.3	27.6	27.5	27.8	28.9	28.7	24.2
lowa	19.6	19.7	19.7	19.9	20.3	19.8	30.8	30.7	30.9	34.1	34.1	27.5
Kansas	18.6	18.5	18.7	20.6	20.8	17.2	23.8	23.8	23.3	24.6	24.4	28.5
Kentucky	22.8	22.9	22.9	22.6	22.7	17.9	22.9	22.6	22.5	25.0	25.1	30.7
Louisiana	26.0	26.8	26.8	25.1	25.2	26.4	13.1	10.8	10.8	16.6	16.6	*
Maine	19.7	19.8	19.8	23.1	26.9	22.1	30.3	30.0	30.2	*	*	*
Maryland	21.3	20.7	21.0	22.5	22.6	17.9	30.3	30.2	30.2	30.4	30.4	30.8
Massachusetts	20.9	21.1	21.5	21.6	22.0	17.9	32.8	32.6	32.4	30.9	31.8	33.3
Michigan	20.6	20.6	20.7	20.6	20.7	19.3	25.8	25.6	25.4	27.0	26.9	26.6
Minnesota	18.0	18.4	18.5	17.2	17.1	17.4	29.4	29.1	29.0	37.6	38.0	31.8
Mississippi	27.0	27.9	28.0	26.0	26.0	24.9	15.0	14.2	14.2	15.8	15.7	*
Missouri	20.6	20.7	20.8	20.0	20.0	19.3	29.6	29.4	29.5	30.5	30.6	24.9
Montana	18.9	18.6	18.5	*	*	21.7	31.8	32.6	33.3	*	*	*
Nebraska	20.6	20.7	21.0	21.8	21.9	18.3	28.0	28.4	27.8	20.7	20.9	33.9
Nevada	21.4	20.8	22.1	25.7	25.9	18.6	19.8	20.2	19.6	18.1	18.1	21.5
New Hampshire	18.5	18.5	18.6	17.2	17.2	18.0	38.5	38.3	38.0	*	*	*
New Jersey	25.4	25.5	25.4	25.5	25.0	26.3	33.4	32.4	33.3	37.1	38.8	28.4
New Mexico	16.4	16.8	17.7	20.5	20.8	16.1	35.2	33.5	35.2	40.4	40.0	32.7
New York	22.9	22.9	23.5	23.5	23.5	22.0	32.0	32.5	32.3	30.8	30.6	30.7
North Carolina	21.5	21.3	21.8	22.3	22.3	16.6	27.2	27.3	27.0	27.0	27.0	30.2
North Dakota	19.4	19.2	18.9	23.0	24.4	30.3	30.6	30.1	30.4	25.0	25.0	25.0
Ohio	18.9	18.9	18.9	19.0	19.0	17.9	34.2	33.9	33.8	35.6	35.6	35.3
Oklahoma	22.8	22.6	22.8	24.2	24.1	20.2	22.0	22.4	21.7	23.6	24.5	29.2
Oregon	17.8	17.6	17.9	21.6	21.4	16.6	36.0	36.1	35.2	33.0	33.3	40.6
Pennsylvania Rhode Island	19.6 19.5	19.8 19.9	19.9 21.3	19.3 19.4	19.4 19.7	18.1 16.7	34.3 30.9	33.2 31.0	33.1 29.1	39.7 27.4	39.6 27.5	35.9 34.8
South Carolina	23.4	23.5	23.6	23.4	23.4	19.4	21.5	21.9	21.6	20.7	20.7	31.3
South Dakota	21.5	21.5	21.5	29.8	28.4	27.0	21.6	22.6	22.3	*	*	*
Tennessee	22.6	22.5	22.7	23.0	23.0	18.3	22.6	21.8	21.6	25.0	25.1	26.8
Texas	23.5	23.3	24.1	25.1	25.2	22.7	18.2	18.1	19.4	17.4	17.5	17.0
Utah	16.0	15.9	15.9	23.8	24.7	16.4	33.5	33.3	32.7	*	*	37.3
Vermont	16.5	16.5	16.7	*	- ···/	*	40.6	40.4	39.9	*	*	*
Virginia	21.2	20.8	21.1	22.5	22.5	17.9	30.7	30.6	30.1	30.0	30.1	37.2
Washington	17.9	17.7	17.8	22.7	22.5	17.9	33.4	33.6	32.5	24.1	24.4	38.6
West Virginia	24.1	24.1	24.1	23.3	23.4	21.5	23.1	22.9	22.9	26.7	26.7	30.0
Wisconsin	16.0	16.5	16.5	14.1	14.1	15.4	33.8	34.1	34.0	28.5	28.4	35.7
Wyoming	18.6	18.4	18.2	*	*	19.5	31.0	31.3	32.2	20.5	20.4	*
Puerto Rico	35.1	35.4		30.7			7.4	7.3		9.0		
Virgin Islands	22.7	27.0	29.1	21.5	21.1	24.9	16.7	*	*	18.2	*	*
Guam	14.7	20.8	20.6	*	*	*	35.3	*	*	*	*	*
American Samoa												
Northern Marianas	17.1	*		*			*	*		*		

NOTE: Data on method of delivery for the Northern Marianas are substantially incomplete; see Table I in the Technical notes.

Table 42. Rates of cesarean delivery and vaginal birth after previous cesarean delivery, by selected maternal medical risk factors and complications of labor and/or delivery: United States, 1998

	All births to mothers	Cesarean	delivery rate	Rate of
Medical risk factor and complication	with specified condition and/or procedure	Total ¹	Primary ²	vaginal birth after previous cesarean ³
Medical risk factors				
nemia	84,795	21.9	15.3	30.2
ardiac disease	20,528	25.1	18.2	30.7
cute or chronic lung disease	40,190	24.4	17.6	30.2
iabetes	103.691	36.1	25.9	19.2
enital herpes ⁴	32.969	33.9	28.1	30.5
ydramnios/Oligohydramnios	51,296	36.4	31.0	24.1
emoglobinopathy	3.202	24.8	18.5	31.3
ypertension, chronic	27,442	40.2	30.9	17.6
ypertension, pregnancy-associated	146,320	36.1	31.1	20.2
clampsia	12,345	48.8	44.6	17.9
competent cervix	10,704	32.9	26.4	27.4
enal disease	10,704	25.4	18.2	26.3
	25,783	21.2	14.6	30.3
h sensitization ⁵ terine bleeding ⁴	23,783	31.2	24.6	30.3 25.7
lerine bleeding ·	23,241	31.2	24.0	25.7
Complications of labor and/or delivery				
ebrile	59,633	30.2	28.4	47.1
econium, moderate/heavy	214,627	20.4	17.4	45.9
remature rupture of membrane	104,453	25.4	22.4	40.7
bruptio placenta	21,834	59.0	54.6	17.8
acenta previa	12,408	81.5	77.5	4.1
ther excessive bleeding ⁶	23,198	30.3	24.0	30.0
eizures during labor	1,359	53.9	51.6	23.1
recipitous labor (less than 3 hours)	79,933	2.4	1.6	78.4
rolonged labor (more than 20 hours)	31,922	35.0	33.5	46.1
ysfunctional labor	106,709	64.9	62.5	16.7
reech/Malpresentation	150,685	84.2	82.6	5.5
ephalopelvic disproportion	75,406	96.2	95.8	1.6
ord prolapse	7,833	67.2	64.9	12.6
nesthetic complication	2,091	43.8	36.4	19.2
etal distress	140,844	55.7	53.0	21.6

Percent of all live births by cesarean delivery.

Number of primary cesareans per 100 live births to women who have not had a previous cesarean.

Number of vaginal births after previous cesarean delivery per 100 live births to women with a previous cesarean delivery.

Texas does not report this risk factor.

Kansas does not report this complication.

75

Table 43. Live births by birthweight and percent very low and low birthweight, by period of gestation and race and Hispanic origin of mother: United States, 1998

						Per	iod of gestati	on ²				
Birthweight ¹ and	All			Preterm				Term	1		Postterm	
race and Hispanic origin of mother	births	Total under 37 weeks	Under 28 weeks	28-31 weeks	32-35 weeks	36 weeks	Total 37-41 weeks	37-39 weeks	40 weeks	41 weeks	42 weeks and over	Not stated
						Nu	mber					
All races ³	3,941,553	452,275	29,037	47,486	212,210	163,542	3,156,116	1,859,198	853,416	443,502	292,766	40,396
Less than 500 grams 500-999 grams 1,000-1,499 grams 1,500-1,999 grams 2,000-2,499 grams 2,500-2,999 grams 3,000-3,499 grams 3,500-3,999 grams 4,000-4,499 grams 4,500-4,999 grams 5,000 grams or more Not stated	5,950 22,471 28,555 58,921 182,311 649,658 1,457,401 1,135,572 335,082 54,809 6,200 4,618	5,755 21,836 26,536 48,671 92,678 118,357 90,571 37,552 7,696 1,265 202 1,156	5,524 16,104 3,968 977 667 1,069	217 5,044 15,087 11,194 4,105 4,243 4,944 2,542	11 627 6,921 31,469 60,004 53,651 37,703 17,137 3,794 586 100 207	3 61 560 5,031 27,902 59,394 47,924 17,873 3,902 679 102 111	16 194 1,357 8,718 82,348 490,289 1,245,928 985,558 288,932 46,346 5,150 1,280	13 125 988 7,184 67,528 362,438 772,698 501,222 125,210 18,686 2,350 756	3 48 244 987 10,165 88,946 321,039 314,083 99,968 16,004 1,612 317	21 125 547 4,655 38,905 152,191 170,253 63,754 11,656 1,188 207	23 222 805 5,338 34,760 106,916 101,907 35,252 6,633 748 162	179 418 440 727 1,947 6,252 13,986 10,555 3,207 565 100 2,020
	-					Pe	rcent					
Very low birthweight ⁴ Low birthweight ⁵	1.4 7.6	12.0 43.3	90.4 96.2	43.0 75.2	3.6 46.7	0.4 20.5	0.0 2.9	0.1 4.1	0.0 1.3	0.0 1.2	0.1 2.2	2.7 9.7
						Nu	mber					
White, total	3,118,727	324,284	17,020	31,415	152,717	123,132	2,529,526	1,470,983	693,703	364,840	234,996	29,921
Less than 500 grams	3,271 13,676 18,878 40,733 126,666 465,221 1,140,245 958,560 294,288 48,671 5,348 3,170	3,156 13,238 17,541 33,898 65,723 86,235 67,407 28,989 6,159 1,011 152 775	3,020 9,593 2,413 541 398 605 - - - 450	128 3,184 10,040 7,781 2,565 2,496 3,283 1,860	6 427 4,701 22,107 43,114 38,852 26,941 12,890 2,978 469 73 159	2 34 387 3,469 19,646 44,282 37,183 14,239 3,181 542 79 88	9 141 902 5,838 56,001 350,263 979,405 835,568 254,587 41,300 4,452 1,060	7 90 663 4,843 46,062 259,390 607,113 424,057 109,766 16,381 1,992 619	2 34 151 653 6,850 62,985 252,155 266,497 88,337 14,372 1,406 261	17 88 342 3,089 27,888 120,137 145,014 56,484 10,547 1,054 180	19 138 521 3,644 24,531 83,134 85,469 30,858 5,883 662 137	106 278 297 476 1,298 4,192 10,299 8,534 2,684 477 82 1,198
						Pe	rcent					
Very low birthweight ⁴ Low birthweight ⁵	1.1 6.5	10.5 41.3	90.7 96.3	42.6 75.6	3.4 46.1	0.3 19.1	0.0 2.5	0.1 3.5	0.0 1.1	0.0 1.0	0.1 1.8	2.4 8.5
						Nu	mber					
White, non-Hispanic	2,361,462	240,300	12,523	23,219	111,691	92,867	1,930,558	1,118,994	530,325	281,239	176,615	13,989
Less than 500 grams 500-999 grams 1,000-1,499 grams 1,500-1,999 grams 2,000-2,499 grams 2,500-2,999 grams 3,000-3,499 grams 3,500-3,999 grams 4,000-4,499 grams 4,500-4,999 grams 5,000 grams or more Not stated	2,426 10,205 14,486 31,418 96,061 341,150 843,988 740,782 235,239 39,319 4,146 2,242	2,370 9,966 13,586 26,359 50,799 64,852 47,309 19,434 4,233 714 102 576	2,276 7,140 1,727 367 271 403 - - - - 339	87 2,472 7,872 6,016 1,823 1,597 2,075 1,223	5 330 3,698 17,279 33,475 28,764 17,619 8,087 1,949 317 47 121	2 24 289 2,697 15,230 34,088 27,615 10,124 2,284 397 55 62	8 93 648 4,426 41,948 256,673 731,314 652,240 205,274 33,610 3,479 845	6 62 484 3,718 34,678 191,480 455,126 330,486 87,810 13,139 1,524 481	2 19 108 463 5,016 45,044 186,684 208,279 71,634 11,760 1,101 215	12 56 245 2,254 20,149 89,504 113,475 45,830 8,711 854 149	9 95 380 2,666 17,735 60,808 65,095 24,440 4,757 525 105	48 137 157 253 648 1,890 4,557 4,013 1,292 238 40 716
						Pe	rcent					
Very low birthweight ⁴ Low birthweight ⁵	1.1 6.6	10.8 43.0	91.5 96.7	45.0 78.9	3.6 49.1	0.3 19.7	0.0 2.4	0.0 3.5	0.0 1.1	0.0 0.9	0.1 1.8	2.6 9.4

Table 43. Live births by birthweight and percent very low and low birthweight, by period of gestation and race and Hispanic origin of mother: United States, 1998 --Con.

						Peri	od of gestatio	on ²				
Birthweight ¹ and	All			Preterm				Term	1		Postterm	
race and Hispanic origin of mother	births	Total under 37 weeks	Under 28 weeks	28-31 weeks	32-35 weeks	36 weeks	Total 37-41 weeks	37-39 weeks	40 weeks	41 weeks	42 weeks and over	Not stated
						Nur	nber					
Black, total	609,902	105,773	10,899	13,988	48,954	31,932	455,212	282,824	114,888	57,500	43,931	4,986
Less than 500 grams	2,425 7,909 8,427 15,369 45,354 141,095 230,862 124,959 27,965 4,168 584 785	2,365 7,753 7,868 12,550 22,395 25,941 18,503 6,722 1,137 187 38	2,280 5,908 1,396 396 248 419 - - - 252	82 1,665 4,453 2,935 1,351 1,511 1,418 552	3 157 1,876 7,955 14,092 12,087 8,676 3,335 628 96 19 30	23 143 1,264 6,704 11,924 8,409 2,835 509 91 19	6 45 387 2,419 21,103 105,757 192,488 105,325 23,615 3,441 486 140	5 29 276 1,952 17,074 77,670 119,100 54,141 10,630 1,613 248 86	1 12 79 297 2,750 19,557 49,669 33,305 7,927 1,107 147 37	4 32 170 1,279 8,530 23,719 17,879 5,058 721 91	4 74 239 1,440 8,303 18,259 12,045 2,992 507 51 17	54 107 98 161 416 1,094 1,612 867 221 33 9
						Per	cent					
Very low birthweight ⁴ Low birthweight ⁵	3.1 13.0	17.1 50.2	90.0 96.1	44.4 75.1	4.2 49.2	0.5 25.5	0.1 5.3	0.1 6.8	0.1 2.7	0.1 2.6	0.2 4.0	5.5 17.9
						Nur	nber					
Black, non-Hispanic	593,127	103,588	10,683	13,742	47,976	31,187	442,230	275,194	111,396	55,640	42,606	4,703
Less than 500 grams	2,380 7,741 8,304 15,120 44,467 137,883 224,378 120,741 26,839 3,980 557 737	2,322 7,591 7,758 12,344 21,957 25,378 18,051 6,553 1,103 1844 37	2,237 5,781 1,375 386 244 411 - - - 249	82 1,634 4,393 2,876 1,323 1,486 1,389 539	3 154 1,850 7,837 13,834 11,823 8,468 3,253 611 94 19 30	22 140 1,245 6,556 11,658 8,194 2,761 492 90 18	6 45 381 2,387 20,695 103,334 187,046 101,793 22,662 3,281 464 136	5 29 272 1,926 16,755 75,907 115,788 52,384 10,261 1,544 239 84	1 12 78 294 2,682 19,113 48,287 32,136 7,570 1,047 140 36	4 31 167 1,258 8,314 22,971 17,273 4,831 690 85 16	73 235 1,411 8,113 17,750 11,602 2,869 483 50 16	52 101 92 154 404 1,058 1,531 793 205 32 6 275
						Per	cent					
Very low birthweight ⁴ Low birthweight ⁵	3.1 13.2	17.1 50.3	90.0 96.1	44.5 75.1	4.2 49.4	0.5 25.5	0.1 5.3	0.1 6.9	0.1 2.8	0.1 2.6	0.2 4.0	5.5 18.1
						Nur	nber					
Hispanic ⁶	734,661	82,282	4,332	8,052	40,264	29,634	580,496	342,311	157,931	80,254	56,900	14,983
Less than 500 grams 500-999 grams 1,000-1,499 grams 1,500-1,999 grams 2,000-2,499 grams 2,500-2,999 grams 3,000-3,499 grams 3,500-3,999 grams 4,000-4,499 grams 4,500-4,999 grams 5,000 grams or more Not stated	773 3,383 4,260 9,018 29,861 121,614 288,934 209,923 56,227 8,846 1,153 669	724 3,196 3,838 7,286 14,492 20,931 19,888 9,461 1,926 296 51 193	684 2,378 665 177 121 205 - - - 102	38 708 2,084 1,710 740 898 1,214 633 - - - 27	2 99 988 4,654 9,314 9,910 9,284 4,769 1,026 152 27 39	11 101 745 4,317 9,918 9,390 4,059 900 144 24 25	1 46 248 1,385 13,792 91,746 241,668 176,345 46,870 7,261 937 197	1 26 173 1,099 11,165 66,552 148,197 90,400 21,012 3,095 462 129	15 43 189 1,811 17,579 63,760 55,907 15,816 2,481 289 41	5 32 97 816 7,615 29,711 30,038 10,042 1,685 186 27	8 42 142 968 6,731 21,892 19,789 6,113 1,059 126 30	48 133 132 205 609 2,206 5,486 4,328 1,318 230 39 249
						Per	cent					
Very low birthweight ⁴ Low birthweight ⁵	1.1 6.4	9.5 36.0	88.1 95.2	35.3 65.8	2.7 37.4	0.4 17.5	0.1 2.7	0.1 3.6	0.0 1.3	0.0 1.2	0.1 2.0	2.1 7.6

⁻ Quantity zero.
0.0 Quantity more than zero but less than 0.05.

1 Equivalents of the gram weights in pounds and ounces are shown in the Technical notes.

2 Expressed in completed weeks.

3 Includes races other than white and black and origin not stated.

4 Birthweight of less than 1,500 grams (3 lb 4 oz).

5 Birthweight of less than 2,500 grams (5 lb 8 oz).

6 Includes all persons of Hispanic origin of any race.

Table 44. Percent of live births very preterm and preterm and percent of live births of very low birthweight and low birthweight, by race and Hispanic origin of mother: United States, 1981-98

			Very pre	eterm ¹					Prete	erm ²		
Year		W	'hite	BI	ack	_		W	/hite	B	lack	
	All races ³	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ⁴	All races ³	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic '
998	1.96	1.57	1.52	4.11	4.15	1.72	11.6	10.5	10.2	17.5	17.6	11.4
997	1.94	1.53	1.49	4.17	4.19	1.68	11.4	10.2	9.9	17.5	17.6	11.2
96	1.89	1.48	1.43	4.13	4.17	1.66	11.0	9.8	9.5	17.4	17.5	10.9
95	1.89	1.46	1.41	4.25	4.29	1.66	11.0	9.7	9.4	17.7	17.8	10.9
994	1.91	1.45	1.39	4.32	4.36	1.67	11.0	9.6	9.3	18.1	18.2	10.9
93	1.93	1.45	1.39	4.41	4.45	1.67	11.0	9.5	9.1	18.5	18.6	11.0
927	1.91	1.40	1.33	4.47	4.50	1.64	10.7	9.1	8.7	18.4	18.5	10.7
91 7	1.94	1.41	1.35	4.62	4.65	1.65	10.8	9.1	8.7	18.9	19.0	11.0
90 8	1.92	1.39	1.33	4.61	4.63	1.69	10.6	8.9	8.5	18.8	18.9	11.0
189 ⁹	1.95	1.41	1.34	4.64	4.68	1.76	10.6	8.8	8.4	18.9	19.0	11.1
988	1.96	1.42		4.72			10.2	8.5		18.7		
987	1.96	1.44		4.61			10.2	8.5		18.4		
86	1.90	1.41		4.47			10.0	8.4		18.0		
85	1.88	1.42		4.37			9.8	8.2		17.8		
84	1.83	1.38		4.22			9.4	7.9		17.1		
983	1.86	1.40		4.34			9.6	8.0		17.7		
982	1.84	1.40		4.22			9.5	8.0		17.4		
981	1.81	1.37		4.13			9.4	7.9		17.3		
			Very low bir	thweight ⁵					Low birtl	nweight ⁶		
		White Black						W	/hite	В	lack	

		W	hite	BI	ack	_		W	hite	В	lack	
	All races ³	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ⁴	All races ³	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ⁴
1998	1.45	1.15	1.15	3.08	3.11	1.15	7.6	6.5	6.6	13.0	13.2	6.4
1997	1.42	1.13	1.12	3.04	3.05	1.13	7.5	6.5	6.5	13.0	13.1	6.4
1996	1.37	1.09	1.08	2.99	3.02	1.12	7.4	6.3	6.4	13.0	13.1	6.3
1995	1.35	1.06	1.04	2.97	2.98	1.11	7.3	6.2	6.2	13.1	13.2	6.3
1994	1.33	1.02	1.01	2.96	2.99	1.08	7.3	6.1	6.1	13.2	13.3	6.2
1993	1.33	1.01	1.00	2.96	2.99	1.06	7.2	6.0	5.9	13.3	13.4	6.2
1992 ⁷	1.29	0.96	0.94	2.96	2.97	1.04	7.1	5.8	5.7	13.3	13.4	6.1
1991 ⁷	1.29	0.96	0.94	2.96	2.97	1.02	7.1	5.8	5.7	13.6	13.6	6.1
1990 ⁸	1.27	0.95	0.93	2.92	2.93	1.03	7.0	5.7	5.6	13.3	13.3	6.1
1989 ⁹	1.28	0.95	0.93	2.95	2.97	1.05	7.0	5.7	5.6	13.5	13.6	6.2
1988	1.24	0.93		2.86			6.9	5.7		13.3		
1987	1.24	0.94		2.79			6.9	5.7		13.0		
1986	1.21	0.93		2.73			6.8	5.7		12.8		
1985	1.21	0.93		2.71			6.8	5.7		12.6		
1984	1.19	0.93		2.60			6.7	5.6		12.6		
1983	1.19	0.92		2.60			6.8	5.7		12.8		
1982	1.18	0.91		2.56			6.8	5.6		12.6		
1981	1.16	0.91		2.52			6.8	5.7		12.7		

Data not available.

Births of less than 32 completed weeks of gestation.

Births of less than 37 completed weeks of gestation.

Includes races other than white and black and origin not stated.

Includes all persons of Hispanic origin of any race.

Less than 1,500 grams (3 lb. 4 oz.).

Less than 2,500 grams (6 lb. 8 oz.).

Data by Hispanic origin exclude New Hampshire, which did not report Hispanic origin.

Data by Hispanic origin exclude New Hampshire and Oklahoma, which did not report Hispanic origin.

Data by Hispanic origin exclude New Hampshire, Oklahoma, and Louisiana, which did not report Hispanic origin.

Table 45. Number and percent low birthweight and number of live births by birthweight, by age and race and Hispanic origin of mother: United States, 1998

	Low birthw	eight ¹							Birthweight ²						
Age and race and Hispanic origin of mother	Number	Percent	Total	Less than 500 grams	500- 999 grams	1,000- 1,499 grams	1,500- 1,999 grams	2,000- 2,499 grams	2,500- 2,999 grams	3,000- 3,499 grams	3,500- 3,999 grams	4,000- 4,499 grams	4,500- 4,999 grams	5,000- grams or more	Not stated
All races ³															
All ages	298,208	7.6	3,941,553	5,950	22,471	28,555	58,921	182,311	649,658	1,457,401	1,135,572	335,087	54,809	6,200	4,618
Under 15 years	1,241 46,107 2,853 5,964 9,129 12,863 15,298 72,449 71,960 62,075 35,636 8,037 703	13.1 9.5 11.5 10.9 9.8 9.4 8.8 7.5 6.7 7.0 8.4 9.9	9,462 484,895 24,777 55,033 93,421 137,567 174,097 965,122 1,083,010 889,365 424,890 81,027 3,782	34 881 59 123 167 258 274 1,391 1,528 1,269 682 157 8	134 3,546 280 463 713 999 1,091 5,407 5,447 4,709 2,609 561 58	142 4,333 272 618 831 1,208 1,404 6,533 6,745 6,165 3,696 850 91	242 8,522 576 1,091 1,696 2,338 2,821 13,422 14,264 12,820 7,678 1,804 169	689 28,825 1,666 3,669 5,722 8,060 9,708 45,696 43,976 37,112 20,971 4,665 377	2,343 104,571 5,819 12,679 20,787 29,552 35,734 175,299 165,650 125,931 62,387 12,786 691	3,755 194,310 10,063 22,157 37,561 55,245 69,284 374,751 398,043 313,825 144,795 26,772 1,150	1,785 112,412 5,004 11,674 21,144 32,123 42,467 261,907 329,127 277,951 128,302 23,218 870	309 23,759 915 2,216 4,175 6,713 9,740 68,521 99,177 90,984 43,755 8,280 302	17 2,898 93 246 461 836 1,262 10,019 16,176 15,748 8,359 1,548 44	4 246 6 19 46 70 105 1,078 1,723 1,841 1,043 254	8 592 24 78 118 165 207 1,098 1,154 1,010 613 132
White, total															
All ages	203,224	6.5	3,118,727	3,271	13,676	18,878	40,733	126,666	465,221	1,140,245	958,560	294,288	48,671	5,348	3,170
Under 15 years	522 27,319 1,448 3,383 5,346 7,806 9,336 46,926 50,913 45,299 25,872 5,792 581	10.9 8.0 9.5 9.3 8.2 8.0 7.4 6.4 5.8 6.1 7.4 8.9	4,801 340,694 15,233 36,439 64,951 97,971 126,100 736,664 880,688 737,532 349,799 65,485 3,064	18 425 29 66 72 122 136 691 888 710 434 101 4	59 1,933 129 274 392 548 590 3,101 3,369 3,070 1,730 367 47	67 2,479 134 341 479 684 841 4,125 4,614 4,350 2,562 602 79	99 5,062 313 613 1,028 1,395 1,713 8,770 10,278 9,460 5,610 1,317 137	279 17,420 843 2,089 3,375 5,057 6,056 30,239 31,764 27,709 15,536 3,405 314	1,033 66,641 3,156 7,615 13,189 19,217 23,464 121,628 122,832 95,618 47,327 9,604 538	1,953 137,261 6,339 14,821 26,251 39,500 50,350 284,953 319,637 256,365 117,792 21,389 895	1,068 87,130 3,515 8,611 16,262 25,100 33,642 214,318 282,660 242,049 110,866 19,732 737	206 19,386 691 1,747 3,408 5,519 8,021 58,526 87,926 81,649 39,065 7,275 255	12 2,417 68 202 397 681 1,069 8,699 14,400 14,192 7,541 1,371 39	3 198 6 13 36 52 91 913 1,490 1,611 897 225	4 342 10 47 62 96 127 701 830 749 439 97 8
All ages	154,596	6.6	2,361,462	2,426	10,205	14,486	31,418	96,061	341,150	843,988	740,782	235,239	39,319	4,146	2,242
Under 15 years	243 18,147 770 2,021 3,456 5,275 6,625 33,256 39,366 37,016 21,353 4,734 481	11.4 8.3 9.9 9.9 8.6 8.2 7.7 6.5 5.8 6.1 7.3 8.9 19.2	2,132 219,169 7,767 20,464 40,388 64,472 86,078 511,101 678,227 603,639 291,202 53,480 2,512	11 296 23 45 44 78 106 480 656 559 341 80 3	37 1,352 75 190 269 384 434 2,187 2,578 2,400 1,327 286 38	29 1,703 74 209 323 484 613 3,003 3,540 2,098 497 72	57 3,405 178 377 657 964 1,229 6,285 7,966 7,832 4,673 1,082 118	109 11,391 420 1,200 2,163 3,365 4,243 21,301 24,626 22,681 12,914 2,789 250	414 41,232 1,495 4,054 7,824 12,234 15,625 82,762 92,974 76,694 38,910 7,724 440	846 85,619 3,076 8,021 15,872 25,360 33,290 192,491 241,941 207,587 97,372 17,391 741	499 58,122 1,924 5,066 10,495 16,986 23,651 151,498 220,369 200,270 93,163 16,269 592	122 13,896 444 1,135 2,404 3,989 5,924 43,314 70,244 68,393 33,030 6,027 213	6 1,800 47 135 280 523 815 6,662 11,550 11,835 6,339 1,098 29	138 4 7 25 37 65 664 1,175 1,283 710 166 10	2 215 7 25 32 68 83 454 608 561 325 71 6

Table 45. Number and percent low birthweight and number of live births by birthweight, by age and race and Hispanic origin of mother: United States, 1998--Con.

	Low birthw	reight ¹							Birthweight ²						
Age and race and Hispanic origin of mother	Number	Percent	Total	Less than 500 grams	500- 999 grams	1,000- 1,499 grams	1,500- 1,999 grams	2,000- 2,499 grams	2,500- 2,999 grams	3,000- 3,499 grams	3,500- 3,999 grams	4,000- 4,499 grams	4,500- 4,999 grams	5,000- grams or more	Not stated
Black, total															
All ages	79,484	13.0	609,902	2,425	7,909	8,427	15,369	45,354	141,095	230,862	124,959	27,965	4,168	584	785
Under 15 years	673 17,330 1,309 2,362 3,494 4,663 5,502 22,700 16,835 12,790 7,441 1,654 61	15.7 13.7 15.2 14.4 13.9 13.4 13.1 12.0 12.1 13.7 16.0 17.5 17.6	4,289 126,937 8,599 16,414 25,090 34,885 41,949 189,088 139,302 93,785 46,657 9,496 348	16 425 27 55 90 124 129 660 589 478 215 38	71 1,525 144 171 306 429 475 2,149 1,873 1,894 740 154 3	68 1,730 130 258 329 498 515 2,227 1,816 1,483 915 182 6	135 3,198 242 439 615 870 1,032 4,186 3,264 2,602 1,608 360 16	383 10,452 766 1,439 2,154 2,742 3,351 13,478 9,293 6,833 3,963 920 32	1,216 34,005 2,426 4,563 6,832 9,267 10,917 45,296 29,661 19,048 9,748 2,044 77	1,659 50,192 3,365 6,464 9,936 13,875 16,552 73,896 52,343 33,615 15,920 3,121 116	647 21,396 1,287 2,608 4,113 5,955 7,433 38,181 31,338 21,236 10,102 1,994 65	87 3,454 178 362 619 956 1,339 7,677 7,601 5,807 2,760 552 27	4 368 22 32 50 115 149 986 1,188 1,002 523 96	1 33 - 3 6 13 11 116 166 159 93 16	2 159 12 20 40 41 46 236 170 128 70 19
Black, non-Hispanic															
All ages	78,012	13.2	593,127	2,380	7,741	8,304	15,120	44,467	137,883	224,378	120,741	26,839	3,980	557	737
Under 15 years	656 17,053 1,294 2,322 3,436 4,587 5,414 22,307 16,537 12,542 7,253 1,607 57	15.6 13.8 15.4 14.5 14.0 13.5 13.2 12.1 12.3 13.8 16.1 17.6	4,204 124,076 8,420 16,021 24,542 34,089 41,004 184,263 135,158 90,827 45,096 9,172 331	16 420 27 55 90 119 129 648 580 469 206 38	67 1,500 143 170 298 424 465 2,112 1,831 1,368 711 150 2	67 1,705 130 253 326 489 507 2,200 1,790 1,454 903 179 6	130 3,155 238 435 607 864 1,011 4,111 3,221 2,560 1,580 347 16	376 10,273 756 1,409 2,115 2,691 3,302 13,236 9,115 6,691 3,853 893 30	1,199 33,308 2,370 4,450 6,703 9,074 10,711 44,363 28,847 18,573 9,531 1,987 75	1,627 49,051 3,288 6,315 9,702 13,562 16,184 71,936 50,808 32,484 15,338 3,018	629 20,784 1,261 2,526 4,006 5,790 7,201 30,216 20,445 9,703 1,905 58	86 3,346 176 355 601 919 1,295 7,393 7,284 5,559 2,615 532 24	4 353 20 32 50 107 144 935 1,139 953 504 91	1 31 - 2 6 12 11 107 162 152 89 15	2 150 11 19 38 38 44 221 165 119 63
All ages	47,295	6.4	734,661	773	3,383	4,260	9,018	29,861	121,614	288,934	209,923	56,227	8,846	1,153	669
Under 15 years	285 9,145 665 1,375 1,899 2,519 2,687 13,519 11,157 7,847 4,262 997 83	10.5 7.5 8.8 8.6 7.7 7.5 6.8 6.1 5.7 6.2 7.9 9.0 17.4	2,716 121,388 7,525 16,079 24,630 33,400 39,754 223,113 196,012 125,702 54,195 11,056 479	6 121 4 19 27 43 28 197 214 132 82 19 2	23 577 51 82 124 160 906 754 642 399 74 8	37 787 61 137 155 202 232 1,089 1,030 764 442 105 6	45 1,646 135 237 375 418 481 2,468 2,212 1,546 868 217 16	174 6,014 414 900 1,218 1,696 1,786 8,859 6,947 4,763 2,471 582 51	630 25,575 1,682 3,628 5,421 6,999 7,845 38,640 29,156 17,960 7,824 1,744 85	1,123 51,673 3,314 6,829 10,422 14,139 16,969 91,672 75,505 46,077 19,014 3,732 138	583 28,793 1,591 3,550 5,759 8,025 9,868 61,973 60,089 38,973 16,228 3,157	82 5,424 246 608 985 1,513 2,072 14,882 16,924 12,236 5,528 1,115 36	7 602 22 61 110 162 247 1,978 2,720 2,176 1,108 247 8	3 61 2 7 10 16 26 245 306 307 174 57	3 115 3 21 24 27 40 204 155 126 57 7

⁻ Quantity zero.

1 Less than 2,500 grams (5 lb 8 oz).

2 Equivalents of gram weights in terms of pounds and ounces are shown in Technical notes.

3 Includes races other than white and black and origin not stated.

4 Includes all persons of Hispanic origin of any race.

territory, 1998

[By place of residence. Low birthweight is birthweight of less than 2,500 grams (5 lb 8 oz)]

			Numi	JG1					Per	cent		
		Wł	nite	Bla	ack	_		W	nite	Bla	ack	_
State	All races 1	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ²	All races 1	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ²
United States ³	298,208	203,224	154,596	79,484	78,012	47,295	7.6	6.5	6.6	13.0	13.2	6.4
Alabama	5,747	3,040	2,963	2,663	2,661	80	9.3	7.3	7.4	13.3	13.3	5.9
Alaska	593	373	341	42	42	38	6.0	5.6	5.6	10.5	10.9	
Arizona	5,326	4,503	2,546	323	311	1,947	6.8	6.6	6.6	12.2	12.6	
Arkansas	3,271	2,128	2,014	1,109	1,109	113	8.9	7.5	7.6	13.9	13.9	
California	32,476	24,060 4,519	10,170	4,268 382	4,124 368	13,875 1,230	6.2 8.6	5.7 8.3	5.8 8.3	11.6 13.3	11.7 13.3	5.6 8.4
Colorado Connecticut	5,138 3,406	2,579	3,318 1,873	726	655	605	7.8	7.0	6.5	13.3	13.3	9.7
Delaware	885	480	420	388	388	58	8.4	6.2	6.1	14.8	14.9	7.7
District of Columbia	1,003	120	75	865	861	43	13.1	5.9	5.7	15.8	15.9	5.9
Florida	15,752	9,943	7,435	5,419	5,344	2,583	8.1	6.8	6.9	12.2	12.3	6.5
Georgia Hawaii	10,458 1,284	5,018 254	4,563 217	5,243 59	5,215 57	439 169	8.5 7.5	6.4 6.2	6.6 6.2	12.7 10.7	12.7 11.0	5.3 7.7
Idaho	1,164	1,131	945	5	5	164	6.0	6.0	5.9	*	*	6.8
Illinois	14,568	8,955	6,794	5,048	5,024	2,181	8.0	6.4	6.5	14.2	14.2	
Indiana	6,718	5,388	5,116	1,241	1,236	260	7.9	7.2	7.3	13.5	13.5	
lowa	2,385	2,178	2,044	140	135	106	6.4	6.2	6.2	12.8	13.1	6.1
Kansas	2,691	2,226	1,966	362	361	235	7.0	6.5	6.6	13.0	13.1	5.9
Kentucky	4,416	3,719	3,668	653	651	52	8.1	7.6	7.6	13.5	13.5	
Louisiana Maine	6,757 800	2,656 774	2,561 744	3,999 7	3,995 7	97 11	10.1 5.8	7.0 5.8	7.0 5.9	14.6	14.6	7.3
	6,232	2,859	2,627	3,113	3,097	217	8.7	6.4	6.4	13.0	13.1	6.1
Maryland Massachusetts	5,630	4,532	3,923	798	701	677	6.9	6.5	6.3	10.2	11.1	7.8
Michigan	10,403	6,781	5,847	3,341	3,315	392	7.8	6.4	6.3	13.8	13.9	6.6
Minnesota	3,788	3,108	2,839	404	397	169	5.8	5.4	5.6	11.0	11.1	5.7
Mississippi	4,337	1,655	1,639	2,644	2,642	16	10.1	7.2	7.3	13.7	13.7	*
Missouri	5,890	4,189	4,067	1,599	1,596	123	7.8	6.7	6.7	14.0	14.1	6.3
Montana	754	650	605	3	3	25	7.0	6.9	6.8	*	*	7.4
Nebraska	1,534	1,323	1,144	151	151	145	6.5	6.2	6.1	12.2	12.3	
Nevada New Hampshire	2,172 821	1,689 789	1,137 739	299 10	294 7	552 11	7.6 5.7	6.9 5.6	7.3 5.5	13.3	13.5	6.3
•										40.0	40.0	7.4
New Jersey New Mexico	9,155 2,039	5,663 1,739	4,256 749	2,842 57	2,679 52	1,513 1,010	8.0 7.6	6.7 7.7	6.4 8.1	13.3 11.4	13.8 11.3	7.4 7.5
New York	20,198	12,430	7,826	6,472	5,996	4,060	7.8	6.7	6.3	11.4	12.4	
North Carolina	9,854	5,578	5,089	3,924	3,914	498	8.8	7.0	7.1	13.9	13.9	
North Dakota	518	456	437	16	15	7	6.5	6.5	6.5	*	*	*
Ohio	11,817	8,586	8,324	3,009	2,950	268	7.7	6.7	6.7	13.2	13.2	
Oklahoma	3,529	2,571	2,328	595	579	214	7.2	6.6	6.7	12.5	12.5	
Oregon	2,426	2,161	1,787	95	94	378	5.4	5.2	5.1	9.8	9.9	
Pennsylvania Rhode Island	11,077 949	8,000 778	7,333 529	2,795 110	2,748 97	647 146	7.6 7.6	6.6 7.1	6.4 6.9	13.5 11.4	13.6 11.8	9.4 7.9
South Carolina	5,129	2,418	2,345	2,648	2,644	76	9.5	7.1	7.1	14.0	14.0	5.8
South Dakota	599	480	472	9	9	9	5.8	5.7	5.7	*	*	*
Tennessee	7,008	4,483	4,359	2,411	2,408	130	9.1	7.6	7.6	14.3	14.3	
Texas	25,402	19,538	9,397	5,061	4,990	10,135	7.4 6.7	6.7	6.7	12.6	12.6	
Utah Vermont	3,044 428	2,853 424	2,493 412	42	41	352 1	6.7 6.5	6.6 6.5	6.6 6.6	14.9	15.6	7.2
Virginia	7,468	4,355	3,994	2,779	2,762		7.9	6.4	6.4	12.7	12.6	
Washington	4,543	3,704	3,023	311	282		5.7	5.4	5.3	10.1	9.8	
West Virginia	1,669	1,556	1,550	102	102		8.0	7.8	7.9	13.4	13.5	
Wisconsin	4,400	3,314	3,080	889	885	238	6.5	5.7	5.6	13.6	13.7	
Wyoming	557	518	473	13	13	44	8.9	8.8	8.9	*	*	7.5
Puerto Rico	6,600	6,115		483	400		10.9	11.0		10.5		*
Virgin Islands	165	14	4	144	129	18	9.2	E 4	*	10.3	10.3	*
Guam American Samoa	328 51	21	18	5	5 		7.6 3.0	6.1		*		
Northern Marianas	110	1		_			8.6					

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.

--- Data not available.

1 Includes races other than white and black and origin not stated.

2 Includes all persons of Hispanic origin of any race.

3 Excludes data for the territories.

Table 47. Number and percent of births of very low birthweight by race and Hispanic origin of mother: United States, each State and territory, 1998

[By place of residence. Very low birthweight is birthweight of less than 1,500 grams (3 lb 4 oz)]

			Numl	ber					Pen	cent		
		Wi	nite	Bla	ack	_		W	hite	Bla	ack	_
State	All races ¹	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ²	All races ¹	Total	Non- Hispanic	Total	Non- Hispanic	Hispanic ²
United States ³	56,976	35,825	27,117	18,761	18,425	8,416	1.4	1.1	1.1	3.1	3.1	1.1
Alabama	1,214	544	530	661	661	14	2.0	1.3	1.3	3.3	3.3	*
Alaska	123	80	73	13	13	7	1.2	1.2	1.2	*	*	*
Arizona	881	726	404	69	68	319	1.1	1.1	1.0	2.6	2.8	1.1
Arkansas	617	393	371	221	221	22	1.7	1.4	1.4	2.8	2.8	1.3
California	5,986	4,358	1,773	968	938	2,581	1.1	1.0	1.0	2.6	2.7	1.0
Colorado	794 734	683 505	482 341	86	84	203	1.3	1.3	1.2	3.0	3.0 3.8	1.4
Connecticut Delaware	178	81	73	218 94	191 94	140 6	1.7 1.7	1.4 1.1	1.2 1.1	4.0 3.6	3.6 3.6	2.3
District of Columbia	234	17	14	214	212	4	3.0	*	*	3.9	3.9	*
Florida	3,095	1,800	1,330	1,239	1,215	492	1.6	1.2	1.2	2.8	2.8	1.2
Georgia	2,150	885	801	1,241	1,235	80	1.8	1.1	1.2	3.0	3.0	1.0
Hawaii	231	51	47 150	17	17	25	1.4	1.2	1.3	*		1.1
IdahoIllinois	189 2,868	180 1,648	150 1,252	1 1,135	1 1,128	28 401	1.0 1.6	1.0 1.2	0.9 1.2	3.2	3.2	1.2 1.2
Indiana	1,170	893	848	265	265	44	1.6	1.2	1.2	2.9	2.9	1.2
lowa	461	404	377	43	43	21	1.2	1.1	1.1	3.9	4.2	1.2
Kansas	533	429	379	89	89	47	1.4	1.3	1.3	3.2	3.2	1.2
Kentucky	881	733	727	145	145	7	1.6	1.5	1.5	3.0	3.0	*
Louisiana	1,416	462	441	942	942	21	2.1	1.2	1.2	3.4	3.4	1.6
Maine	132	129	124	3	3	1	1.0	1.0	1.0	*	*	*
Maryland	1,322	483	423	791	789	54	1.8	1.1	1.0	3.3	3.3	1.5
Massachusetts	1,047	818	670	187 780	161 772	162	1.3	1.2	1.1	2.4 3.2	2.6 3.2	1.9
Michigan	2,038 678	1,214 559	1,036 523	86	85	69 30	1.5 1.0	1.2 1.0	1.1 1.0	2.3	3.2 2.4	1.2 1.0
Minnesota Mississippi	850	274	269	573	573	5	2.0	1.0	1.0	3.0	3.0	1.0
Missouri	1,053	675	654	364	364	19	1.4	1.1	1.1	3.2	3.2	*
Montana	113	91	83	2	2	6	1.0	1.0	0.9	*	*	*
Nebraska	300	246	227	45	45	17	1.3	1.1	1.2	3.6	3.7	*
Nevada	355	260	171	63	61	91	1.2	1.1	1.1	2.8	2.8	1.0
New Hampshire	158	151	141	2	-	1	1.1	1.1	1.1	*	*	*
New Jersey New Mexico	1,860 288	1,023 250	746 126	728 10	685 10	293 126	1.6 1.1	1.2 1.1	1.1 1.4	3.4	3.5	1.4 0.9
New York	3,886	2,147	1,318	1,578	1,486	704	1.5	1.1	1.4	2.9	3.1	1.3
North Carolina	2,102	1,004	928	1,037	1,036	77	1.9	1.3	1.3	3.7	3.7	1.0
North Dakota	107	92	87	4	4	2	1.3	1.3	1.3	*	*	*
Ohio	2,291	1,604	1,539	660	648	65	1.5	1.3	1.2	2.9	2.9	1.9
Oklahoma	647	495	448	108	108	37	1.3	1.3	1.3	2.3	2.3	1.0
Oregon	400	360	287	11	10	78	0.9	0.9	0.8	*	*	1.2
Pennsylvania	2,222	1,516	1,366	666	653	136	1.5	1.2	1.2	3.2	3.2	2.0
Rhode Island	209	164	120	31	28	23	1.7	1.5	1.6	3.2	3.4	1.2
South Carolina	1,064	430	412	625	624	16	2.0	1.3	1.3	3.3	3.3	*
South Dakota	120	88	88	3	3	-	1.2	1.0	1.1	*	*	*
Tennessee	1,302	733	720	552	551	15	1.7	1.2	1.3	3.3	3.3	*
Texas	4,517	3,224	1,584	1,171	1,154	1,639	1.3	1.1	1.1	2.9	2.9	1.1
Utah	453 90	418 90	364	/	/	49	1.0 1.4	1.0 1.4	1.0	*	*	1.0
VermontVirginia	90 1,574	820	87 737	699	697	85	1.4	1.4	1.4 1.2	3.2	3.2	1.5
Washington	854	663	552	92	83		1.7	1.2	1.0	3.2	2.9	0.9
West Virginia	302	277	277	24	24		1.5	1.4	1.4	3.2	3.2	
Wisconsin	814	588	534	196	195		1.2	1.0	1.0	3.0	3.0	1.5
Wyoming	73	67	63	2	2		1.2	1.1	1.2	*	*	*
Puerto Rico	800	740	 1	58			1.3	1.3	*	1.3	 2.4	
Virgin Islands Guam	36 33	2	1	33	30	3	2.0 0.8	*	*	2.4	2.4	*
American Samoa	33 11	· ·		-			U.0 *	*		*		
Northern Marianas	9	_		-						*		

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.

- Quantity zero.

-- Data not available.

1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Excludes data for the territories.

[Rates are number of live births with specified abnormal condition per 1,000 live births in specified group]

A1	A.11	Abnormal			A	age of moth	er			
Abnormal condition and race of mother	All births ¹	condition reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated
All races ²										
Anemia	3,941,553	4,133	1.1	1.2	1.0	1.0	1.1	1.1	1.2	94,142
Birth injury ³	3,575,736	10,966	3.2	3.2	3.1	3.3	3.1	3.0	2.5	97,438
Fetal alcohol syndrome ⁴	3,874,103	272	0.1	0.1	0.0	0.1	0.1	0.1	*	95,263
Hyaline membrane disease/RDS	3,941,553	24,734	6.4	7.3	6.6	6.2	6.0	6.5	7.6	94,142
Meconium aspiration syndrome	3,941,553	8,042	2.1	2.4	2.1	1.9	2.1	2.0	2.4	94,142
Assisted ventilation less than 30 minutes 5	3,821,642	81,206	21.8	21.5	20.4	22.1	22.7	22.8	24.0	103,170
Assisted ventilation 30 minutes or longer ⁵	3,821,642	34,251	9.2	11.0	9.0	8.5	8.7	9.8	12.3	103,170
Seizures	3,941,553	2,105	0.5	0.6	0.5	0.5	0.5	0.6	0.4	94,142
White										
Anemia	3,118,727	2,960	1.0	1.1	0.9	0.9	1.0	1.0	1.1	71,189
Birth injury ³	2,805,467	9,120	3.3	3.5	3.4	3.5	3.3	3.1	2.5	73,895
Fetal alcohol syndrome 4	3,060,543	149	0.0	*	0.0	0.0	0.0	0.1	*	72,267
Hyaline membrane disease/RDS	3,118,727	20,010	6.6	7.5	6.6	6.4	6.1	6.7	7.7	71,189
Meconium aspiration syndrome	3,118,727	5,914	1.9	2.3	2.0	1.8	1.9	1.9	2.3	71,189
Assisted ventilation less than 30 minutes 5	3,051,216	66,491	22.4	22.0	20.8	22.6	23.2	23.4	24.6	78,503
Assisted ventilation 30 minutes or longer ⁵	3,051,216	26,399	8.9	10.6	8.6	8.3	8.5	9.5	12.1	78,503
Seizures	3,118,727	1,666	0.5	0.6	0.5	0.5	0.5	0.6	0.4	71,189
Black										
Anemia	609.902	958	1.6	1.5	1.5	1.7	1.6	1.6	2.5	13,568
Birth injury 3	568.454	1.090	2.0	2.1	1.9	2.0	2.0	1.8	*	13,913
Fetal alcohol syndrome ⁴	603.361	53	0.1	*	*	*	*	*	*	13.591
Hyaline membrane disease/RDS	609,902	4,001	6.7	7.0	6.7	6.3	6.5	7.1	9.3	13,568
Meconium aspiration syndrome	609,902	1.748	2.9	2.5	2.6	3.1	3.6	3.4	3.5	13,568
Assisted ventilation less than 30 minutes ⁵	570,596	11,170	20.1	19.6	18.8	20.7	21.8	21.0	23.1	14,487
Assisted ventilation 30 minutes or longer ⁵	570,596	6,579	11.8	12.4	11.1	11.2	12.1	14.0	15.2	14,487
Seizures	609,902	346	0.6	0.6	0.5	0.6	0.6	0.7	*	13,568

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.

1. O Quantity more than zero but less than 0.05.

1. Total number of births to residents of areas reporting specified condition. Includes races other than white and black.

3. Nebrask and Texas do not report this condition.

4. Wisconsin does not report this condition.

5. New York City does not report this condition.

NOTE: Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race;

Table 49. Live births with selected congenital anomalies and rates by age of mother, by race of mother: Total of 49 reporting States and the District of Columbia, 1998

[Rates are number of live births with specified congenital anomaly per 100,000 live births in specified group]

Commental comments and	A.II	Congenital			A	Age of moth	er			N-1
Congenital anomaly and race of mother	All births ¹	anomaly reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated
All races ²										
All Taces -										
Anencephalus	3,914,235	398	10.3 21.8	11.4	9.6	10.7	10.1	9.9	*	67,290 67.290
Spina bifida/Meningocele Hydrocephalus	3,914,235 3,914,235	838 941	24.5	26.4 29.9	23.7 27.3	19.9 20.3	21.9 22.9	16.6 25.1	26.6	67,290
Microcephalus	3,914,235	240	6.2	8.1	6.3	5.6	6.1	5.3	*	67,290
Other central nervous system anomalies	3,914,235	833	21.7	26.8	21.8	18.3	21.2	22.9	31.4	67,290
Heart malformations	3,914,235	4,639	120.6	109.3	111.6	117.9	123.3	140.3	195.7	67.290
Other circulatory/respiratory anomalies	3,914,235	5,140	133.6	126.3	132.9	131.9	132.9	140.1	182.5	67,290
Rectal atresia/stenosis	3.914.235	364	9.5	8.5	9.9	10.2	8.9	8.4	*	67.290
Tracheo-esophageal fistula/Esophageal atresia	3,914,235	499	13.0	9.6	13.0	13.1	13.1	15.7	*	67,290
Omphalocele/Gastroschisis	3,914,235	1,171	30.4	69.6	44.0	20.0	15.6	16.2	*	67,290
Other gastrointestinal anomalies	3,914,235	1,214	31.6	31.8	30.3	29.4	34.5	31.6	41.1	67,290
Malformed genitalia	3.914.235	2.938	76.4	74.4	76.9	77.8	76.3	74.0	77.3	67.290
Renal agenesis	3,914,235	515	13.4	12.9	12.6	14.3	13.8	13.7	*	67,290
Other urogenital anomalies	3,914,235	4,121	107.1	101.4	102.7	104.6	115.0	112.4	113.6	67,290
Cleft lip/palate	3,914,235	3,127	81.3	88.9	84.8	76.7	78.2	80.8	90.6	67,290
Polydactyly/Syndactyly/Adactyly	3,914,235	3,258	84.7	114.7	95.2	78.1	72.2	70.2	78.5	67,290
Clubfoot	3,914,235	2,178	56.6	64.4	61.4	53.3	51.2	53.3	72.5	67,290
Diaphragmatic hernia	3,914,235	529	13.8	11.4	14.0	13.8	12.0	18.1	*	67,290
Other musculoskeletal/integumental anomalies	3,914,235	9,095	236.4	256.8	229.9	224.5	237.4	254.1	245.3	67,290
Down's syndrome	3,914,235	1,681	43.7	25.1	25.0	25.3	40.8	104.9	322.6	67,290
Other chromosomal anomalies	3,914,235	1,321	34.3	28.0	27.8	27.3	30.1	56.2	169.2	67,290
White										
Anencephalus	3,095,723	319	10.5	12.2	9.2	10.7	10.7	10.0	*	51,831
Spina bifida/Meningocele	3,095,723	693	22.8	27.1	25.2	21.2	22.7	17.6	*	51,831
Hydrocephalus	3,095,723	742 187	24.4 6.1	29.5 8.0	27.0 6.0	21.7	23.0 6.0	23.1	*	51,831
Microcephalus Other central nervous system anomalies	3,095,723 3,095,723	693	22.8	27.4	24.5	5.6 19.4	21.9	23.7	*	51,831 51,831
Other central hervous system anomalies	3,033,723	033	22.0	21.4	24.5	13.4	21.3	25.1		31,031
Heart malformations	3,095,723	3,696	121.4	116.7	111.4	118.5	122.6	136.4	200.2	51,831
Other circulatory/respiratory anomalies	3,095,723	4,134	135.8	133.4	137.3	132.6	133.5	138.8	182.3	51,831
Rectal atresia/stenosis	3,095,723	309	10.2	8.3	10.4	10.8	10.3	8.8	*	51,831
Tracheo-esophageal fistula/Esophageal atresia	3,095,723	428	14.1	10.7	14.3	13.7	13.9	17.3		51,831
Omphalocele/Gastroschisis	3,095,723	901	29.6	77.7	44.2	19.5	14.0	14.3	*	51,831
Other gastrointestinal anomalies	3,095,723	947	31.1	31.0	29.5	28.8	33.8	31.9	44.8	51,831
Malformed genitalia	3,095,723	2,412	79.2	78.6	79.4	80.4	80.2	74.4	80.7	51,831
Renal agenesis	3,095,723	415	13.6	13.7	13.0	14.8	14.1	12.6	*	51,831
Other urogenital anomalies	3,095,723	3,522	115.7	113.4	110.7	112.2	124.2	117.7	124.0	51,831
Cleft lip/palate	3,095,723	2,676	87.9	103.3	95.3	80.7	82.5	85.2	97.1	51,831
Polydactyly/Syndactyly/Adactyly	3,095,723	1,757	57.7	67.0	60.3	54.6	55.2	56.8	55.3	51,831
Clubfoot	3,095,723	1,886	62.0	73.8	66.7	59.0	55.9	56.8	80.7	51,831
Diaphragmatic hernia	3,095,723	439	14.4	12.2	14.9	14.6	11.8	19.6	204.7	51,831
Other musculoskeletal/integumental anomalies	3,095,723	6,036	198.3 49.3	221.2 30.1	186.8 28.8	190.1	201.8 44.2	212.5 114.8	201.7	51,831
Down's syndrome Other chromosomal anomalies	3,095,723 3,095,723	1,502 1,090	49.3 35.8	27.4	20.6 30.4	28.4 27.5	32.0	57.1	357.1 174.8	51,831 51,831
Other Gironosomal anomalies	3,093,123	1,090	33.0	21.4	30.4	21.5	32.0	51.1	174.0	31,031

Table 49. Live births with selected congenital anomalies and rates by age of mother, by race of mother: Total of 49 reporting States and the District of Columbia, 1998 -- Con.

[Rates are number of live births with specified congenital anomaly per 100,000 live births in specified group]

		Congenital			A	Age of moth	er			
Congenital anomaly and race of mother	All births ¹	anomaly reported	All ages	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-54 years	Not stated
Black										
Diack										
Anencephalus	609,393	61	10.1	*	*	*	*	*	*	7.915
Spina bifida/Meningocele	609,393	119	19.8	25.5	19.3	16.0	*	*	*	7,915
Hydrocephalus	609,393	155	25.8	27.0	30.6	*	25.9	43.5	*	7,915
Microcephalus	609,393	40	6.7	*	*	*	*	*	*	7,915
Other central nervous system anomalies	609,393	104	17.3	22.4	12.9	*	*	*	*	7,915
Heart malformations	609,393	711	118.2	88.0	109.5	125.2	125.4	182.5	216.9	7,915
Other circulatory/respiratory anomalies	609,393	694	115.4	99.6	104.1	124.5	120.0	163.0	*	7,915
Rectal atresia/stenosis	609,393	39	6.5	*	*	*	*	*	*	7,915
Tracheo-esophageal fistula/Esophageal atresia	609,393	52	8.6	*	*	*	*	*	*	7,915
Omphalocele/Gastroschisis	609,393	226	37.6	44.8	45.6	28.4	32.4	*	*	7,915
Other gastrointestinal anomalies	609,393	215	35.7	33.2	32.7	37.1	41.1	*	*	7,915
Malformed genitalia	609,393	390	64.8	64.1	66.5	69.2	54.0	67.4	*	7,915
Renal agenesis	609,393	77	12.8	*	*	*	*	*	*	7,915
Other urogenital anomalies	609,393	399	66.3	69.5	65.5	67.0	55.1	80.4	*	7,915
Cleft lip/palate	609,393	276	45.9	40.1	45.1	50.2	47.6	43.5	*	7,915
Polydactyly/Syndactyly/Adactyly	609,393	1.407	233.9	241.6	236.1	240.2	227.0	189.0	278.8	7,915
Clubfoot	609,393	228	37.9	37.1	41.3	32.8	34.6	50.0	*	7,915
Diaphragmatic hernia	609,393	70	11.6	*	10.7	*	*	*	*	7,915
Other musculoskeletal/integumental anomalies	609,393	1,928	320.5	288.7	312.9	312.3	349.1	397.6	371.7	7,915
Down's syndrome	609,393	127	21.1	*	*	*	27.0	63.0	206.5	7,915
Other chromosomal anomalies	609,393	169	28.1	27.8	16.6	28.4	*	58.7	*	7,915

^{*} Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator. 1 Total number of births.
2 Includes races other than white and black.

NOTES: Excludes data for New Mexico, which did not report congenital anomalies. Race and Hispanic origin are reported separately on birth certificates. In this table all women (including Hispanic women) are classified only according to their race; see Technical notes.

Table 50. Live births by plurality of birth and ratios, by age and race and Hispanic origin of mother: United States, 1998

						Age of n	nother				
Plurality and race and Hispanic origin	All ages	Under	1	15-19 years	:	20-24	25-29	30-34	35-39	40-44	45-54
of mother	uges	15 years	Total	15-17 years	18-19 years	years	years	years	years	years	years
						Number					
All live births											
All races 1		9,462	484,895	173,231	311,664	965,122	1,083,010	889,365	424,890	81,027	3,782
White, total		4,801	340,694	116,623	224,071	736,664	880,688	737,532	349,799	65,485	3,064
White, non-Hispanic		2,132 4,289	219,169 126,937	68,619 50,103	150,550 76,834	511,101 189,088	678,227 139,302	603,639 93,785	291,202 46,657	53,480 9,496	2,512 348
Black, non-Hispanic		4,204	124,076	48,983	75,093	184,263	135,158	90,827	45,096	9,172	331
Hispanic ²		2,716	121,388	48,234	73,154	223,113	196,012	125,702	54,195	11,056	479
Live births in single deliveries											
All races 1		9,373	477,422	170,982	306,440	943,745	1,051,417	855,379	405,473		3,110
White, total		4,760	336,122	115,279	220,843	721,818	855,318	708,777	333,174	62,263	2,461
White, non-Hispanic		2,114	216,054	67,780	148,274	500,180	657,590 134,328	578,804	276,619	50,655	1,970 334
Black, total		4,243 4,158	124,246 121,422	49,265 48,157	74,981 73,265	183,222 178,521	134,328	90,051 87,187	44,739 43,223	9,209 8,896	334 317
Hispanic ²		2,697	119,947	47,730	72,217	219,239	191,551	122,114	52,400	10,708	437
Live births in twin deliveries											
All races 1	110,670	87	7,388	2,217	5,171	20,916	29,901	30,781	17,676	3,337	584
White, total		39	4,514	1,326	3,188	14,470	23,835	25,834	15,043	2,907	521
White, non-Hispanic	71,270	18	3,072	828	2,244	10,626	19,255	22,153	13,140	2,535	471
Black, total		46	2,664	824	1,840	5,785	4,838	3,551	1,831	272	14
Black, non-Hispanic Hispanic ²		46 17	2,627 1,426	812 497	1,815 929	5,661 3,804	4,726 4,342	3,462 3,388	1,792 1,665	261 339	14 34
Live births in higher-order											
multiple deliveries ³											
All races 1	,	2	85	32	53	461	1,692	3,205	1,741	351	88
White, total		2	58 43	18 11	40 32	376 295	1,535	2,921	1,582 1,443	315 290	82 71
White, non-Hispanic		- :	27	14	13	81	1,382 136	2,682 183	87	15	- ' '
Black, non-Hispanic		_	27	14	13	81	136	178	81	15	_
Hispanic ²		2	15	7	8	70	119	200	130	9	8
	-				Ratio p	er 1,000 live	births				
All multiple births											
All races 1	30.0	9.4	15.4	13.0	16.8	22.1	29.2	38.2	45.7	45.5	177.7
White, total		8.5	13.4	11.5	14.4	20.2	28.8	39.0	47.5	49.2	196.8
White, non-Hispanic	32.8	*	14.2	12.2	15.1	21.4	30.4	41.1	50.1	52.8	215.8
Black, total		10.7	21.2	16.7	24.1	31.0	35.7	39.8	41.1	30.2	*
Black, non-Hispanic Hispanic ²		10.9	21.4 11.9	16.9 10.4	24.3 12.8	31.2 17.4	36.0 22.8	40.1 28.5	41.5 33.1	30.1 31.5	87.7
Twin births											
All races ¹	28.1	9.2	15.2	12.8	16.6	21.7	27.6	34.6	41.6	41.2	154.4
White, total		8.1	13.2	11.4	14.2	19.6	27.1	35.0	43.0	44.4	170.0
White, non-Hispanic		*	14.0	12.1	14.9	20.8	28.4	36.7	45.1	47.4	187.5
Black, total		10.7	21.0	16.4	23.9	30.6	34.7	37.9	39.2	28.6	*
Black, non-Hispanic		10.9	21.2	16.6	24.2	30.7	35.0	38.1	39.7	28.5	*
Hispanic ²	20.4		11.7	10.3	12.7	17.0	22.2	27.0	30.7	30.7	71.0
					Ratio pe	r 100,000 live	e births				
Higher-order multiple births ³											
All races 1		*	17.5	18.5	17.0	47.8	156.2	360.4	409.8		2326.8
White, total		*	17.0	*	17.9	51.0	174.3	396.1	452.3	481.0	
White, non-Hispanic		*	19.6 21.3	*	21.3	57.7 42.8	203.8 97.6	444.3 195.1	495.5 186.5	542.3	2826.4
LIGUR. IVIGI	00./		د.ا∠								
Black, non-Hispanic	87.3	*	21.8	*	*	44.0	100.6	196.0	179.6	*	*

<sup>Quantity zero.
* Figure does not meet standards of reliability or precision; based on fewer than 20 births in the numerator or denominator.
1 Includes races other than white and black and origin not stated.
2 Includes all persons of Hispanic origin of any race.
3 Births in greater than twin deliveries.</sup>

Technical notes

Source of data

Data shown in this report for 1998 are based on 100 percent of the birth certificates in all States and the District of Columbia. The data are provided to the National Center for Health Statistics (NCHS) through the Vital Statistics Cooperative Program (VSCP). In 1984 and earlier years, the VSCP included varying numbers of States that provided data based on 100 percent of their birth certificates. Data for States not in the VSCP were based on a 50-percent sample of birth certificates filed in those States. Information on sampling procedures and sampling errors for 1984 and earlier years is provided in the Technical Appendix, Vital Statistics of the United States, 1997, Volume I, Natality (3). Information on the percent of records with missing information for maternal and infant characteristics included in this report is shown by State in table I. Data are not shown for the variables race, age, and marital status of mother. Missing data are imputed in these cases; see separate sections in the Technical notes for more information.

Age of mother

Age of mother is computed in most cases from the mother's and infant's dates of birth as reported on the birth certificate. The mother's age is directly reported by five States (Kentucky, Nevada, North Dakota, Virginia, and Wyoming) and American Samoa. From 1964 to 1996, mother's age was edited for ages outside the age range 10-49 years. Births reported to occur to mothers younger than age 10 or older than age 49 years had age imputed according to the age of mother from the previous record with the same race and total birth order (total of live births and fetal deaths). Beginning in 1997, age of mother is edited for ages outside the age range 10-54 years (3). A review and verification of unedited birth data for 1996 showed that the vast majority of births reported as occurring to women aged 50 years and over were to women aged 50-54 years. The numbers of births to women aged 50-54 years are too small for computing age-specific birth rates. These births have been included with births to women aged 45-49 years for computing birth rates.

In 1998 age of mother was not reported on 0.02 percent of the records; for these records age of mother was imputed according to the last record with the same race and total birth order.

Race and Hispanic origin

Race and Hispanic origin are reported separately on the birth certificate. Beginning with the 1989 data year, NCHS started tabulating its birth data primarily by race of the mother. Birth data published for 1988 and prior years showed births tabulated by the race of the child, which was determined from the race of the parents as entered on the birth certificate.

Trend data by race shown in this report are by race of mother for all years beginning with the 1980 data year; data for 1980–88 that were previously published by race of child have been re-tabulated by race of mother. In order to facilitate continuity and analysis of the data, trend tables showing data for years prior to 1980 show data for both race of mother and race of child for 1980. This makes it possible to distinguish the effects of this change from real changes in the data. The text discussions of data by race are based on tabulations by race of mother.

Text references to white births and white mothers or black births and black mothers are used interchangeably for ease in writing.

The factors influencing the decision to tabulate births by race of the mother have been discussed in detail elsewhere (67). They include the 1989 revision of the birth certificate, which includes many more health questions that are directly associated with the mother. In these instances, it is more appropriate to tabulate births by the mother's race. Another factor influencing the decision to tabulate births by race of mother is the large proportion of births with race of father not stated, 14 percent in 1998. Although this proportion has declined slightly in the 1990's, it is still higher than in 1978, 11 percent. The high proportion of records with the father's race not reported reflects the increase in the proportion of births to unmarried women; in many such cases, no information is reported on the father. These births are already assigned the race of the mother because there is no alternative. Tabulating all births by race of mother, therefore, provides for a more uniform approach, rather than a necessarily arbitrary combination of parental

Race of mother is reported by all registration areas in eight categories: white, black, American Indian, Chinese, Japanese, Hawaiian, Filipino, and "other" Asian or Pacific Islander (API). In addition, nine States (California, Hawaii, Illinois, Minnesota, New Jersey, New York, Texas, Virginia, and Washington) report data on API subgroups included in the "other" API category (Vietnamese, Asian Indian, Korean, Samoan, Guamanian, and remaining API). A report on births in 1992 to women in these API subgroups has been published (68).

In 1998 race of mother was not reported for 0.8 percent of births. In these cases, if the race of the father was known, the race of the father was assigned to the mother. When information was not available for either parent, the race of the mother was imputed according to the specific race of the mother on the preceding record with a known race of mother. This was necessary for just 0.4 percent of births in 1998.

Hispanic origin and race are reported independently on the birth certificate, as noted previously. Data for Hispanic subgroups are shown in most cases for five groups: Mexican, Puerto Rican, Cuban, Central and South American, and other and unknown Hispanic. In tabulations of birth data by race only, data for persons of Hispanic origin are included in the data for each race group according to the mother's reported race. In tabulations of birth data by race and Hispanic origin, data for persons of Hispanic origin are not further classified by race because the vast majority of births to Hispanic women are reported as white. In these tabulations, data for non-Hispanic persons are classified according to the race of the mother because there are substantial differences in fertility and maternal and infant health between Hispanic and non-Hispanic white women.

Items asking for the Hispanic origin of the mother and the father have been included on the birth certificates of all States and the District of Columbia, the Virgin Islands, and Guam since 1993 (4). Puerto Rico, American Samoa, and the Northern Marianas do not collect this information. The percent of records for which Hispanic origin of the parents was not reported in 1998 is shown by State in table I.

Marital status

National estimates of births to unmarried women are based on two methods of determining marital status. For 1994 through 1996, birth certificates in 45 States and the District of Columbia included a question about the mother's marital status. In 1997 California added a

National Vital Statistics Report, Vol. 48, No. 3, March 28, 2000

Table I. Percent of birth records on which specified items were not stated: United States and each State and territory, 1998 [By place of residence]

Alabama	941,553 62,074 9,926 78,243 36,865	0.0 - .0	0.0 -	place 0.3	age	race	Mother	Father	Mother	order	gestation	care began	visits
Alabama	62,074 9,926 78,243	_	0.0	0.3	1 4 4						3		
Alaska	9,926 78,243		_		14.4	14.8	1.2	15.3	1.5	0.7	1.0	2.8	3.6
Alaska	78,243	.0		0.0	23.8	23.8	.0	23.8	0.3	0.0	0.1	0.3	0.3
Arizona			.0	.2	12.9	14.7	.5	13.7	2.0	.2	.3	1.7	1.5
Arkansas	36,865	-	.0	.3	21.5	23.3	1.3	23.6	2.0	.4	.2	2.1	3.6
California		.0	.0	.4	20.6	21.8	.1	21.0	.9	.2	.3	2.4	3.3
California	521,661	.0	.1	.3	7.4	6.8	.7	6.3	1.7	.1	5.4^{2}	1.6	2.9
Colorado	59.577	_	_	.2	9.6	10.2	.0	10.3	1.4	.0	.0	.7	.9
Connecticut	43,820	.0	.0	.4	9.4	10.8	5.3	14.4	3.9	8.3	.1	5.4	9.0
Delaware	10,578	.0	.0	.3	30.7	31.6	.3	30.7	.7	.3	.1	.9	1.1
District of Columbia	7,686	_	_	.0	44.9	51.3	.5	44.7	9.0	.2	.4	15.3	18.6
Florida	195,637	.0	-	.2	17.6	17.7	.1	19.1	.4	.0	.1	.8	1.7
Georgia	122,368	.0	.0	.2	18.0	18.4	.8	18.6	2.0	.3	.1	2.9	2.7
Hawaii	17,583	_	.0	.1	8.4	8.6	.1	8.4	.4	.0	10.4	5.3	6.1
Idaho	19,391	.0	.0	.3	8.6	11.2	1.5	11.4	4.2	1.3	.6	2.2	2.6
	182,588	.0	.0	.1	15.5	16.8	.0	16.8	.8	.2	.2	1.8	2.2
Indiana	85,122	.3	.1	.2	13.5	13.7	.4	13.7	.9	.4	.1	1.5	2.6
lowa	37,282	.0	.0	.4	12.1	14.2	1.1	15.0	1.5	.1	.1	1.3	3.9
Kansas	38,422	.0	.0	.1	10.6	10.7	1.0	12.1	.4	.0	.1	.6	.8
Kentucky	54.329	.0	.1	.0	22.0	22.7	.1	23.7	.2	.1	.1	1.1	1.3
Louisiana	66,888	-	.0	.0	22.3	22.5	.2	22.5	.1	.0	.0	.3	.5
Maine	13,733	_	.0	-	10.0	15.0	4.3	18.7	.8	.3	.1	.5	.5
Maryland	71,972	.0	.0	.7	8.4	10.1	.6	6.8	2.0	1.6	.5	4.7	8.2
Massachusetts	81,411	.0	.0	.0	7.8	7.6	.4	6.8	.3	.2	.2	.9	.3
Michigan	133,666	.0	.2	.1	16.0	18.0	5.4	22.5	1.4	.6	.1	3.9	5.4
Minnesota	65,202	.0	.0	.0	8.9	11.3	5.2	15.4	2.2	.5	1.0	5.6	5.0
Mississippi	42,939	.0	.0	.1	24.2	24.0	.1	24.3	.2	.1	.2	.6	1.1
Missouri	75,358	.0	.0	.2	18.3	18.3	.1	18.5	.8	.3	.2	1.4	2.0
Montana	10,795	.0	.1	-	10.2	11.5	2.0	13.4	.4	.0	.1	.5	.5
Nebraska	23,534	.0	.0	.0	12.2	12.8	2.2	14.4	.1	.0	.0	.3	.6
Nevada	28,699	_	.0	.8	22.4	23.3	.7	22.0	3.2	1.1	1.1	6.2	10.0
New Hampshire	14,429	_	-	.0	7.2	9.1	3.5	11.6	.8	2.8	.2	1.7	1.8
New Jersey	114,550	.1	.1	.2	8.9	11.1	.4	9.4	2.3	.2	.2	5.0	6.0
New Mexico	27,318	.0	.0	2.8	27.5	26.8	.0	26.8	5.1	.5	.7	5.7	5.5
New York	258,207	.1	.1	.4	15.7	16.1	6.2	20.8	1.7	.1	.2	10.0	6.7
North Carolina	111,688	.0	.0	.0	17.2	17.2	.0	17.1	.2	.0	.1	.5	.5
North Dakota	7,932	-	-	.0	7.9	9.4	3.1	12.3	.2	-	.1	.6	.3
Ohio	152,794	.0	.0	.2	15.2	16.0	.4	15.8	.5	.2	.0	.5	1.5
Oklahoma	49,461	.0	.1	.1	17.0	18.9	1.1	18.8	2.0	12.2	3.2	10.9	12.8
Oregon	45,273	_	-	.1	11.6	4.6	.2	4.9	1.2	.1	.0	.4	.5
	145,899	.0	.0	.8	5.7	4.3	.6	3.8	2.3	.4	.2	3.2	4.8
Rhode Island	12,599	_	_	.3	13.6	14.2	12.8	23.1	2.9	2.2	2.6	8.8	9.8

Table I. Percent of birth records on which specified items were not stated: United States and each State and territory, 1998—Con. [By place of residence]

	Number	Place	Attendant	Mother's birth-	Eathor/c	Eathor/c	Hispani	ic origin	Educational attainment	Live- birth	of	Month	Number of
of Area births		of birth	at birth	place	Father's age	Father's race	Mother	Father	Mother	order		prenatal care began	prenatal visits
South Carolina	53,877	_	.0	.3	28.8	28.9	.1	28.8	4.6	.1	.2	1.5	1.6
South Dakota	10,288	.0	_	.0	11.8	12.1	.1	13.3	.2	_	.0	.4	.4
Tennessee	77,396	.0	.0	.0	16.1	16.2	.0	16.3	.2	.0	.2	1.1	.9
Texas	342,283	.0	.0	.4	15.3	15.4	.3	15.4	1.3	1.2	.6	2.0	5.2
Utah	45,165	.0	.0	.2	9.7	10.8	.3	9.3	.9	.2	.1	2.9	3.0
/ermont	6,582	.0	-	.1	9.1	15.3	2.6	16.4	2.5	.4	.2	3.6	1.2
/irginia	94,351	.0	.1	.1	17.8	18.6	.1	18.5	.5	1.1	.3	.6	1.2
Washington	79,663	.0	.0	.8	11.8	12.0	3.2	12.3	10.6	4.5	1.0	9.7	13.1
West Virginia	20,747	.1	.0	.1	13.3	14.2	.2	14.6	.5	.2	.5	4.3	3.2
Wisconsin	67,450	_	_	.0	28.4	28.4	.0	28.4	.1	.0	.0	.2	.3
Wyoming	6,252	.0	-	.0	13.6	14.0	.1	13.9	.4	.0	.1	.5	.5
Puerto Rico	60,412	_	.1	_	2.9	3.4			.2	.0	.1	.2	.1
Virgin Islands	1,800	.1	.6	_	21.6	24.3	3.2	26.4	1.7	.9	.8	.6	1.7
Guam	4,318	.1	.5	.1	23.6	24.9	.4	23.3	.6	.6	.2	.8	1.2
American Samoa	1,688	.1	_	5.9	34.2	34.8				_			
Northern Marianas	1,462	.2	1.0	0.3	9.6	24.4			25.0	23.1	26.3	56.5	25.0

See footnotes at end of table.

National Vital Statistics Report, Vol. 48, No. 3, March 28, 2000

Table I. Percent of birth records on which specified items were not stated: United States and each State and territory, 1998 [By place of residence]

Area	Number of births	Birth- weight	5-minute- Apgar score	Medical risk factors	Tobacco use	Alcohol use	Weight gain	Obstetric procedures	Complications of labor and/or delivery	Method of delivery	Abnormal conditions of newborn	Congenital anomalies
Total of reporting areas ¹	3,941,553	0.1	0.6	1.4	1.5	1.5	8.3	0.9	1.2	0.9	2.4	1.7
AlabamaAlaskaArizonaArkansasCalifornia	62,074 9,926 78,243 36,865 521,661	0.0 .2 .1 .1	0.2 .6 .6 3.6	0.0 ³ .3 .0 .5 .0	0.0 .6 1.8 .9	0.1 .6 2.0 1.0	3.1 1.6 11.3 9.5	0.0 .3 .0 .4 .0	0.0 .3 .0 .5	0.3 .4 .2 .7 .0	0.0 .4 .0 .4 .0	0.1 .3 .4 .4
Colorado	59,577 43,820 10,578 7,686 195,637	.0 .0 .0 .1	.3 1.5 .4 1.1 .2	.0 11.8 .0 .0	.1 8.1 .2 .1	.1 7.4 .2 .1 .1	3.4 18.6 1.9 16.4 4.4	.0 10.4 .0 .0	.0 12.2 .0 .0	.0 4.5 .0 .0	.0 18.9 .1 .0	.1 20.1 .1 .0 .0
Georgia. Hawaii Idaho	122,368 17,583 19,391 182,588 85,122	.0 2.8 .3 .1 .5	.5 7.2 .6 .3 .5	.4 16.2 1.0 .1 .1	.4 .1 .7 1.0	.4 .1 1.0 .2 .4	5.6 13.8 10.2 3.9 3.2	.0 9.7 .9 .0	.0 7.3 .9 .1 .2	.3 16.5 .3 .4 .4	.0 17.2 .7 .1 .6	.0 18.9 .7 .1 .6
lowa. Kansas Kentucky Louisiana. Maine.	37,282 38,422 54,329 66,888 13,733	.1 .0 .1 .1	.3 .4 .4 .3	.2 .5 ³ 6.1 .0	3.3 .5 4.5 .1 1.1	3.8 .5 4.5 .1 1.4	6.9 .7 8.6 6.8 1.8	.1 .4 3.9 .0	.3 .4 6.5 .1	.4 2.9 4.1 .1	.3 .4 11.3 .1	.4 .4 10.3 .0
Maryland	71,972 81,411 133,666 65,202 42,939	.1 .2 .3 .1	.5 .3 .4 .8	.0 .6 .1 8.3	.5 .3 1.8 7.2 .2	.7 .3 1.5 7.3	8.3 1.1 9.4 18.1 4.6	.0 .6 .1 6.5	.0 .6 .1 7.6	.2 .4 .6 4.5	.0 1.0 .1 8.2	.0 1.0 .1 8.5
Missouri	75,358 10,795 23,534 28,699 14,429	.0 .0 .0 .1	.5 .4 .2 1.7 .3	.1 .1 .0 10.7 .0	.4 .8 .9 2.2 .2	.4 1.5 .9 2.5 .3	3.0 1.4 1.3 11.8 5.5	.1 .1 .0 .5	.1 .1 .0 6.6 .0	.7 .5 .2 1.5	.1 .2 .0 ⁶ 12.4 .1	.1 .1 .0 12.5 .1
New Jersey	114,550 27,318 258,207 111,688 7,932	.1 1.6 .1 .0	.2 4.0 .2 .3 .4	2.3 .1 1.1 .0 .1	1.0 2.0 4.3 ⁴ .1 .6	1.0 2.1 .2 .1	6.1 11.3 9.6 2.3 1.3	.1 .0 .2 .0	1.6 .0 .4 .0	.5 .4 .3 .4 1.0	26.2 .1 0.9 ⁷ .0 .1	1.7 1.0 .4 .1
Ohio. Oklahoma Oregon Pennsylvania. Rhode Island	152,794 49,461 45,273 145,899 12,599	.1 .6 .0 .1 .4	.2 5.5 .4 .3	.0 34.0 .5 .1 8.4	.3 23.9 .7 .9 2.7	.1 24.2 .7 .6 2.9	2.6 34.6 3.0 8.3 12.0	.0 30.2 .0 .0	.0 33.0 .0 .1 8.4	.4 26.9 .2 .1 .7	.0 39.5 .0 .6 18.9	.0 40.3 .0 .5 19.3

See footnotes at end of table.

Table I. Percent of birth records on which specified items were not stated: United States and each State and territory, 1998—Con. [By place of residence]

Area	Number of births	Birth- weight	5-minute- Apgar score	Medical risk factors	Tobacco use	Alcohol use	Weight gain	Obstetric procedures	Complications of labor and/or delivery	Method of delivery	Abnormal conditions of newborn	Congenital anomalies
South Carolina	53,877	.0	.4	.0	.1	.1	2.6	.0	.0	.5	.0	.0
South Dakota	10,288	.0	.3	.0			1.4	.0	.0	.2	.0	.0
Tennessee	77,396	.0	.3	.0	.2	.2	6.1	.0	.1	.4	.1	.0
Texas	342,283	.1		1.3 ⁵	.4	.5	19.6	.1	.18	.7	.2 ⁶	.3
Utah	45,165	.0	.3	.1	.5	.4	4.1	.0	.0	.0	.2	.4
Vermont	6,582	.2	.2	.1	.9	.5	2.0	.1	.1	.0	.2	.2
Virginia	94,351	.3	.4	.0	.1	.1	4.8	.0	.0	.4	.1	.1
Washington	79,663	.3	.4	5.5	5.2	15.1	23.7	7.1	9.3	.4	11.0	10.4
West Virginia	20,747	.1	.2	.0	.8	2.4	9.0	.0	.0	.2	.0	.0
Wisconsin	67,450	.0	.4	.1	.1	.1	1.6	.0	.1	.0	.19	.1
Wyoming	6,252	.0	.4	.0	1.1	1.1	2.1	.0	.0	.2	.0	.0
Puerto Rico	60,412	.0	.2	.0	.0	.0	.1	.0	.1	.0	.1	.1
Virgin Islands	1,800	.1	2.9	6.4	2.3	2.3	9.8	2.5	7.4	3.0	8.7	6.8
Guam	4,318	.1	1.3	5.4	1.1	1.3	4.0	1.9	2.9	1.3	5.7	5.5
American Samoa	1,688	_										
Northern Marianas	1,462	12.3	21.5							43.6		

^{0.0} Quantity more than zero but less than 0.05.

^{- - -} Data not available.

⁻ Quantity zero.

¹Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas.

²California reports date last normal menses began but does not report clinical estimate of gestation.

³Kansas does not report Rh sensitization.

⁴New York City (but not New York State) reports tobacco use.

⁵Texas does not report genital herpes and uterine bleeding.

⁶Nebraska and Texas do not report birth injury.

⁷New York City does not report assisted ventilation less than 30 minutes and assisted ventilation of 30 minutes or more.

⁸Texas does not report anesthetic complications and fetal distress.

⁹Wisconsin does not report fetal alcohol syndrome.

direct question to their birth certificate; thus by 1997, all but four States (Connecticut, Michigan, Nevada, and New York) included a direct question on their birth certificates. Nevada asks for the mother's marital status through the electronic birth registration process but this item is not included on certified or paper copies of the birth certificate. Beginning June 15, 1998, Connecticut discontinued inferring the mother's marital status and added a direct question on mother's marital status to the State's birth certificate.

In the two States (Michigan and New York) that use inferential procedures to compile birth statistics by marital status in 1998, a birth is inferred as nonmarital if either of these factors is present: a paternity acknowledgment was received or the father's name is missing. In recent years, a number of States have extended their efforts to identify the fathers when the parents are not married in order to enforce child support obligations. The presence of a paternity acknowledgment therefore is the most reliable indicator that the birth is nonmarital in the States not reporting this information directly; this is now the key indicator in the nonreporting States.

Since 1980 the National Center for Health Statistics has published information on nonmarital births, which incorporates reported and inferential data. The inferential procedures represent a substantial departure from the method used before 1980 to prepare national estimates of births to unmarried women, which assumed that the incidence of births to unmarried women in States with no direct question on marital status was the same as the incidence in reporting States in the same geographic division (23). Inferential procedures in current use, however, are quite different from those in use during the 1980's, when there was heavy reliance on a comparison of the surnames of the parents and the child to infer the mother's marital status. The procedures now in use depend, as noted above, on very reliable indicators, namely a paternity affidavit or missing information on the father.

A review of Connecticut's birth data for 1998 indicate that during the first 6 months of 1998, when the inferential procedures were still in use, the proportion of births to unmarried women was somewhat higher (33 percent) than in the last 6 months when marital status was based on a direct question (29 percent). The inferential procedures in effect in Connecticut relied principally on a comparison of the surnames of the parents and child. It appears that the inferential procedures resulted in some overestimation of the number of births to unmarried women, probably because of the reliance on a comparison of surnames. It is estimated that if the Connecticut reporting procedures had not changed, the number of nonmarital births would have been about 1,000 higher. Because Connecticut accounts for only about 1 percent of U.S. births, the reporting changes had essentially no impact on data for the Nation.

The procedures for reporting marital status in California, Nevada, and New York City changed beginning January 1, 1997. The methods used to determine marital status and the impact of the procedures on the data were discussed in detail in previous reports (1, 20).

The use of inferential marital status data together with information from a direct question represents an attempt to use related information on the birth certificate to improve the quality of national data as well as to provide data for the individual nonreporting States. Because of the continued substantial increases in nonmarital childbearing throughout the 1980's, the data have been intensively evaluated by the Division of Vital Statistics, NCHS. The results of this evaluation show that trends in birth rates for unmarried women for rates computed on the basis of

estimated data and on the basis of inferred data are essentially the same

The mother's marital status was not reported in 1998 on 0.04 percent of the birth records. Marital status was imputed as "married" for these records.

Prenatal care

As a result of a programming error, the proportions presented in "Report of Final Natality Statistics, 1996" and "Births: Final Data for 1997" for the Adequacy of Prenatal Care Utilization Index (APNCU) are incorrect for levels of care other than intensive use of care (19, 20, 71). Levels for the adequate care category are only slightly different from those published previously. The corrected APNCU levels for 1990 and 1995–97 are presented in this report.

Gestation

The primary measure used to determine the gestational age of the newborn is the interval between the first day of the mother's last normal menstrual period (LMP) and the date of birth. It is subject to error for several reasons, including imperfect maternal recall or misidentification of the LMP because of postconception bleeding, delayed ovulation, or intervening early miscarriage. These data are edited for LMP-based gestational ages that are clearly inconsistent with the infant's plurality and birthweight (see below), but reporting problems for this item persist and may occur more frequently among some subpopulations and among births with shorter gestations (70, 72).

The U.S. Standard Certificate of Live Birth includes an item, "clinical estimate of gestation," that is being compared with length of gestation computed from the date the last normal menstrual period (LMP) began when the latter appears to be inconsistent with birthweight. This is done for normal weight births of apparently short gestations and very low birthweight births reported to be full term. The clinical estimate was also used if the LMP date was not reported. The period of gestation for 5.1 percent of the births in 1998 was based on the clinical estimate of gestation. For 97 percent of these records, the clinical estimate was used because the LMP date was not reported. For the remaining 3 percent, the clinical estimate was used because it was compatible with the reported birthweight, whereas the LMP-based gestation was not. In cases where the reported birthweight was inconsistent with both the LMP-computed gestation and the clinical estimate of gestation, the LMP-computed gestation was used, and birthweight was reclassified as "not stated." This was necessary for about 350 births, or 0.01 percent of all birth records in 1998. The levels of the adjustments in 1998 data were similar to those for 1997 and earlier years (20).

Birthweight

Birthweight is reported in some areas in pounds and ounces rather than in grams. However, the metric system has been used in tabulating and presenting the statistics to facilitate comparison with data published by other groups. Equivalents of the gram weights in terms of pounds and ounces are as follows:

Less than 500 grams = 1 lb 1 oz or less 500-999 grams = 1 lb 2 oz-2 lb 3 oz 1,000-1,499 grams = 2 lb 4 oz-3 lb 4 oz

Method of delivery

Several rates are computed for method of delivery. The overall cesarean section rate or *total cesarean* rate is computed as the percent of all births that were delivered by cesarean section. The *primary cesarean* rate is a measure that relates the number of women having a first cesarean delivery to all women giving birth who have never had a cesarean delivery. The denominator for this rate includes all births less those with method of delivery classified as repeat cesarean, vaginal birth after previous cesarean, or method not stated. The rate for *vaginal birth after previous cesarean* (VBAC) delivery is computed by relating all VBAC deliveries to the sum of VBAC and repeat cesarean deliveries, that is, to women with a previous cesarean section. The proportion of VBAC deliveries among births in Hawaii in 1998 is overstated because of incomplete reporting in some hospitals.

Computations of percents, percent distributions, and medians

Births for which a particular characteristic is unknown were subtracted from the figures for total births that were used as denominators before percents, percent distributions, and medians were computed. The percent of records with missing information for each item is shown by State in **table I**. The median number of prenatal visits also excludes births to mothers who had no prenatal care. Computations of the median years of school completed and the median number of prenatal visits were based on ungrouped data. An asterisk is shown in place of any derived statistic based on fewer than 20 births in the numerator or denominator.

Population denominators

Birth and fertility rates for 1998 shown in tables 1, 3–6, 8, 9, 13, and 14 are based on populations estimated as of July 1, 1998. These populations are shown in tables II and III. The population estimates have been published by the U.S. Bureau of the Census (5) and are based on the 1990 census counts by race and age, which were modified to be consistent with Office of Management and Budget racial categories and historical categories for birth data, and in the case of age, to reflect age as of the census reference date. The modification procedures are described in detail in a census report (73).

Birth and fertility rates by State shown in table 10 are based on State-level population estimates provided by the U.S. Bureau of the Census that are consistent with the U.S. populations (74). Rates by State shown in this report may differ from rates computed on the basis of other population estimates. Birth and fertility rates by month shown in table 15 are based on monthly population estimates also based on the 1998 estimates. Rates for unmarried women shown in tables 17 and

18 are based on distributions of the population by marital status as of March 1998 provided by the U.S. Bureau of the Census (22), which have been adjusted to July 1998 population levels (5) by the Division of Vital Statistics, NCHS (23).

Birth and fertility rates for the Hispanic population, shown in tables 6, 8, 9, and 14, are based on estimates of the total Hispanic population as of July 1, 1998 (5). Rates for Hispanic subgroups are based on special population estimates that are presented in table III in the Technical notes (75).

Computation of rates

In computing birth rates by live-birth order, births with birth order not stated were distributed in the same proportion as births of known live-birth order. This procedure is done separately by race.

In computing birth and fertility rates for the Hispanic population, births with origin of mother not stated are included with non-Hispanic births rather than being distributed. Thus, rates for the U.S. Hispanic population are underestimates of the true rates to the extent that the births with origin of mother not stated (1.2 percent) were actually to Hispanic mothers (see table I). In computing the rates, the census-based populations with origin not stated are imputed. The effect on the rates is believed to be small.

Age of father—Information on age of father is often missing on birth certificates of children born to unmarried women (table I). In computing birth rates by age of father, births where age of father is not stated are distributed in the same proportions as births with known age within each 5-year age classification of mother. This procedure is followed because, while father's age is missing on 14 percent of the birth certificates, one third of these were on records where the mother is a teenager. This distribution procedure is done separately by race. When the father's race is not stated, the race of the mother is assigned to the father prior to distributions the data for age of father not stated. The resulting distributions are summed to form a composite frequency distribution that is the basis for computing birth rates by age of father. This procedure avoids the distortion in rates that would result if the relationship between age of mother and age of father were disregarded.

Graphic presentation

Trend data shown in figures 2–7 are plotted using a logarithmic scale. This approach is taken to facilitate comparison of the relative change in rates over time for each series of rates as well as the differentials among rates for different series. The trend lines in figure 2, for example, show that women 40–44 years of age experienced the most change of any group over the period, and also that they had the greatest increase in rates since 1985.

Random variation and significance testing for natality data

The number of births reported for an area is essentially a complete count, because more than 99 percent of all births are registered. Although this number is not subject to sampling error, it may be affected by nonsampling errors such as mistakes in recording the mother's residence or age during the registration process.

When the number of births is used for analytic purposes the number of events that actually occurred can be thought of as one in

Table II. Estimated total population by race, and estimated female population by age and race: United States, 1998 [Populations estimated as of July 1]

Age	All races	White	Black	American Indian	Asian or Pacific Islander
otal population	270,298,524	223,000,729	34,430,569	2,359,946	10,507,280
Female population					
5–44 years	60,111,557	48,250,829	8,591,694	569,534	2,699,500
0–14 years	9,387,020	7,402,657	1,472,646	119,551	392,166
5–19 years	9,493,761	7,500,658	1,487,073	113,821	392,209
15–17 years	5,694,086	4,498,674	881,464	71,297	242,651
18–19 years	3,799,675	3,001,984	605,609	42,524	149,558
0-24 years	8,678,024	6,868,796	1,332,918	93,674	382,636
5–29 years	9,341,226	7,394,657	1,368,895	93,239	484,435
0-34 years	10,179,403	8,145,421	1,448,812	89,390	495,780
5–39 years	11,369,766	9,261,994	1,529,631	92,526	485,615
0–44 years	11,049,377	9,079,303	1,424,365	86,884	458,825
5–49 years	9,607,011	7,972,031	1,169,762	71,258	393,960

SOURCE: U.S. Bureau of the Census. Unpublished Census file NESTV98.wk1. consistent with populations published in: U.S. population estimates, by age, sex, race, and Hispanic origin: 1990 to 1998. Washington, DC: U.S. Bureau of the Census. Internet release, June 4, 1999. http://www.census.gov/population/www/estimates/uspop.html.

Table III. Estimated total population by specified Hispanic origin and estimated female population by age and specified Hispanic origin and by race for women of non-Hispanic origin: United States, 1998

[Populations estimated as of July 1]

			Hispanic			Non-Hispanic			
Age	Total	Mexican	Puerto Rican	Cuban	Other Hispanic ¹	Total ²	White	Black	
Total population	30,250,264	19,552,181	3,018,584	1,322,312	638,171	240,048,291	195,439,555	32,717,947	
Female population									
15–44 years	7,269,192	4,605,176	759,516	263,807	1,640,985	52,842,369	41,645,748	8,172,590	
10–14 years	1,286,910	884,607	139,675	30,635	231,989	8,100,120	6,238,757	1,398,096	
15–19 years	1,296,337	861,714	151,227	36,648	246,744	8,197,425	6,322,186	1,415,021	
15–17 years	774,225	527,598	91,034	23,087	132,501	4,919,866	3,795,902	838,562	
18–19 years	522,112	334,116	60,193	13,561	114,243	3,277,559	2,526,284	576,459	
20–24 years	1,250,938	828,513	109,181	29,625	283,615	7,427,083	5,725,391	1,265,049	
25–29 years	1,223,460	801,871	130,708	39,510	251,371	8,117,764	6,282,628	1,300,046	
30–34 years	1,270,594	792,065	130,108	58,495	289,929	8,908,804	6,993,329	1,372,694	
35–39 years	1,207,754	691,785	137,162	56,344	322,468	10,162,016	8,166,734	1,456,919	
40–44 years	1,020,109	629,228	100,830	43,185	246,858	10,029,277	8,155,480	1,362,861	
45–49 years	794,527	457,033	82,975	34,958	219,561	8,812,484	7,251,049	1,122,532	

¹Includes Central and South American and other and unknown Hispanic.

SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division, U.S. Bureau of the Census. Totals for Hispanic population and non-Hispanic population by race are consistent with figures published in: U.S. Bureau of the Census. Unpublished Census file NESTV98.wk1. consistent with populations published in: U.S. population estimates, by age, sex, race, and Hispanic origin: 1990 to 1998. Washington, DC: U.S. Bureau of the Census. Internet release, June 4, 1999. http://www.census.gov/population/www/estimates/uspop.html.

a large series of possible results that *could have* occurred under the same circumstances. When considered in this way, the number of births is subject to random variation. The probable range of values may be estimated from the actual figures according to certain statistical assumptions.

The **confidence interval** is the range of values for the number of births, birth rates, or percent of births that you could expect in 95 out of 100 cases. The **confidence limits** are the end points of this range of values (the highest and lowest values). Confidence limits tell you how much the number of events or rates could vary under similar circumstances.

Confidence limits for numbers, rates, and percents can be estimated from the actual number of events. Procedures differ for rates and percents and also differ depending on the number of births on which these statistics are based. Below are detailed procedures and examples for each type of case.

95-percent confidence limits for numbers less than 100

When the number of births is less than 100 and the rate is small, the data are assumed to follow a Poisson probability distribution. Confidence limits are estimated using the following formulas:

Lower limit = $B \times L$

Upper limit = $B \times U$

²Includes races other than white and black.

where:

B = the number of births

L = the value in Table IV that corresponds to the number B U = the value in Table IV that corresponds to the number B

Example

Suppose that the number of first births to American Indian women 40–44 years of age was 47. The confidence limits for this number would be:

Lower limit =
$$B \times L$$

= 47 x 0.73476
= 35
Upper limit = $B \times U$
= 47 x 1.32979

This means that the chances are 95 out of 100 that the actual number of first births to American Indian women 40–44 years of age would lie between 35 and 63.

95-percent confidence limits for numbers of 100 or more

When the number of events is greater than 100, the data are assumed to be approximately normally distributed. Formulas for 95-percent confidence limits are:

Lower limit =
$$B - (1.96 \ x \sqrt{B})$$

Upper limit = $B + (1.96 \ x \sqrt{B})$

where:

B = the number of births

Example

Suppose that the number of first births to white women 40–44 years of age was 14,108. The 95- percent confidence limits for this number would be:

Lower limit = 14,108 - (1.96 x
$$\sqrt{14,108}$$
)
= 14,108 - 233
= 13,875
Upper limit = 14,108 + (1.96 x $\sqrt{14,108}$)
= 14,108 + 233
= 14.341

This means that the chances are 95 out of 100 that the actual number of first births to white women 40–44 years of age would lie between 13,875 and 14,341.

Computing confidence intervals for rates

The same statistical assumptions can be used to estimate the variability in birth rates. Again, one formula is used for rates based on numbers of events less than 100, and another formula for rates based on numbers of 100 or greater. For our purposes, assume that the denominators of these rates (the population estimates) have no error. While this assumption is technically correct only for denominators

based on the census that occurs every 10 years, the error in intercensal population estimates is usually small, difficult to measure, and therefore not considered.

95-percent confidence limits for rates based on less than 100 events

When the number of events in the numerator is less than 20, an asterisk is shown in place of the rate because there were too few births to compute a statistically reliable rate. When the number of events in the numerator is greater than 20 but less than 100, the confidence interval for a rate can be estimated using the two formulas that follow and the values in Table IV.

Lower limit = $R \times L$ Upper limit = $R \times U$

where:

R =the birth rate

L = the value in Table IV that corresponds to the number B in the numerator of the rate

U = the value in Table IV that corresponds to the number *B* in the numerator of the rate

Example

Suppose that the first birth rate for American Indian women 40–44 years of age was 0.54 per 1,000, based on 47 births in the numerator. Using Table IV:

```
Lower limit = 0.54 \times 0.73476 = .40
Upper limit = 0.54 \times 1.32979 = .72
```

This means that the chances are 95 out of 100 that the actual first birth rate for American Indian women 40–44 year of age lies between .40 and .72.

95-percent confidence limits for rates when the numerator is 100 or more

In this case, use the following formula for the birth rate R based on the number of births B:

Lower limit =
$$R - [1.96 \ x (R / \sqrt{B})]$$

Upper limit = $R + [1.96 \ x (R / \sqrt{B})]$

where:

R = the birth rate B = the number of births

Example

Suppose that the first birth rate for white women 40–44 years of age was 1.55 per 1,000, based on 14,108 births in the numerator. Therefore, the 95-percent confidence interval would be:

Lower limit =
$$1.55 - [1.96 \text{ x} (1.55 / \sqrt{14,108})]$$

= $1.55 - .026$
= 1.52

Table IV. Values of L and U for calculating 95 percent confidence limits for numbers of events and rates when the number of events is less than 100

N	L	U	N	L	U
	0.02532	5.57164	51	0.74457	1.31482
	0.12110	3.61234	52	0.74685	1.31137
	0.20622	2.92242	53	0.74907	1.30802
	0.27247	2.56040	54	0.75123	1.30478
	0.32470	2.33367	FF.	0.75334	1.30164
	0.36698	2.17658	Ė,	0.75539	1.29858
	0.40205	2.06038	57	0.75739	1.29562
	0.43173	1.97040	58	0.75934	1.29273
	0.45726	1.89831	59	0.76125	1.28993
	0.47954	1.83904	60	0.76311	1.28720
	0.49920	1.78928	61	0.76492	1.28454
	0.51671	1.74680	62	0.76669	1.28195
	0.53246	1.71003	63	0.76843	1.27943
	0.54671	1.67783	64	0.77012	1.27698
	0.55969	1.64935	/ 5	0.77178	1.27458
	0.57159	1.62394		0.77340	1.27225
	0.58254	1.60110	67	0.77499	1.26996
	0.59266	1.58043	68	0.77654	1.26774
	0.60207	1.56162	69	0.77806	1.26556
	0.61083	1.54442	70	0.77955	1.26344
	0.61902	1.52861	71	0.78101	1.26136
	0.62669	1.51401	72	0.78244	1.25933
	0.63391	1.50049	73	0.78384	1.25735
	0.64072	1.48792	74	0.78522	1.25541
	0.64715	1.47620		0.78656	1.25351
			7,		
	0.65323	1.46523	76	0.78789	1.25165
	0.65901	1.45495	77	0.78918	1.24983
	0.66449	1.44528	78	0.79046	1.24805
	0.66972	1.43617	79	0.79171	1.24630
	0.67470	1.42756	80	0.79294	1.24459
	0.67945	1.41942	81	0.79414	1.24291
	0.68400	1.41170	82	0.79533	1.24126
	0.68835	1.40437	83	0.79649	1.23965
	0.69253	1.39740	84	0.79764	1.23807
	0.69654	1.39076	O.F.	0.79876	1.23652
			0/		
	0.70039	1.38442	86	0.79987	1.23499
	0.70409	1.37837	87	0.80096	1.23350
	0.70766	1.37258	88	0.80203	1.23203
	0.71110	1.36703	89	0.80308	1.23059
	0.71441	1.36172	90	0.80412	1.22917
	0.71762	1.35661	91	0.80514	1.22778
	0.72071	1.35171	92	0.80614	1.22641
	0.72370	1.34699	93	0.80713	1.22507
	0.72660	1.34245	0.4	0.80810	1.22375
	0.72941		0.5	0.80906	
		1.33808	0.4		1.22245
	0.73213	1.33386	96	0.81000	1.22117
	0.73476	1.32979	97	0.81093	1.21992
	0.73732	1.32585	98	0.81185	1.21868
	0.73981	1.32205	99	0.81275	1.21746
	0.74222	1.31838			

Upper limit =
$$1.55 + [1.96 \times (1.55 / \sqrt{14,108})]$$

= $1.55 + .026$
= 1.58

This means that the chances are 95 out of 100 that the actual first birth rate for white women 40–44 years of age lies between 1.52 and 1.58.

Computing 95-percent confidence intervals for percents

In many instances we need to compute the confidence intervals for percents. Percents derive from a binomial distribution. As with birth rates, an asterisk will be shown for any percent that is based on fewer than 20 births in the numerator. We easily compute a 95-percent confidence interval for a percent when the following conditions are met:

$$B \times p > = 5$$
 and $B \times q > = 5$

where:

B = number of births in the denominator

p = percent divided by 100

q = 1 - p

For natality data, these conditions will be met except for very rare events in small subgroups. If the conditions are *not* met, the variation in the percent will be so large as to render the confidence intervals meaningless. When these conditions are met the 95-percent confidence interval can be computed using the normal approximation of the binomial. The 95-percent confidence intervals are computed by the following formulas:

Lower limit =
$$p - \left(1.96 \sqrt{\frac{pq}{B}}\right)$$

Upper limit =
$$p + \left(1.96 \sqrt{\frac{pq}{B}}\right)$$

where:

B = number of births in the denominator p = percent divided by 100 q = 1 - p

Example

Suppose that the percent of births to Hispanic women in Alabama that were to unmarried women was 23.0 percent. This was based on 310 births in the numerator and 1,345 births in the denominator. First we test to make sure we can use the normal approximation of the binomial:

$$1,345 \times .230 = 309$$

 $1,345 \times (1 - .230) = 1,345 \times .770 = 1,036$

Both 309 and 1,036 are greater than 5 so we can proceed. The 95-percent confidence interval would be:

Lower limit = .23 -
$$\left[1.96 \sqrt{\frac{.23(.77)}{1,345}}\right]$$

= .23 - .022
= .208, or 20.8 percent

Upper limit = .23 +
$$\left[1.96 \sqrt{\frac{.23(.77)}{1,345}}\right]$$

= .23 + .022
= .252, or 25.2 percent

This means that the chances are 95 out of 100 that the actual percent of births in Alabama to Hispanic women that are to unmarried women lies between 20.8 and 25.2 percent.

Significance testing

One of the rates is based on fewer than 100 cases

To compare two rates, when one or both of those rates are based on less than 100 cases, you first compute the confidence intervals for both rates. Then you check to see if those intervals overlap. If they **do** overlap, the difference is not statistically significant at the 95-percent level. If they **do not** overlap, the difference is indeed "statistically significant."

Example

Is the first birth rate for American Indian women 40–44 years of age (.54 per 1,000) significantly lower than the comparable rate for white women (1.55)? The rate for American Indian women is based on 47 events whereas the rate for white women is based on 14,108 events. The rate for American Indian women is based on less than 100 events; therefore, the first step is to compute the confidence intervals for both rates.

	Lower Limit	Upper Limit
American Indian women White women	0.40 1.52	0.72 1.58

These two confidence intervals do not overlap. Therefore, the first birth rate for American Indian women aged 40–44 years is significantly lower (at the 95-percent confidence level) than the comparable rate for white women.

Both rates are based on 100 or more events

When both rates are based on 100 or more events, the difference between the two rates is considered statistically significant if it exceeds the statistic in the formula below. This statistic equals 1.96 times the standard error for the difference between two rates.

$$1.96\sqrt{\frac{R_1^2}{N_1} + \frac{R_2^2}{N_2}}$$

where:

 R_1 = first rate

 R_2 = second rate

 N_1 = first number of births

 N_2 = second number of births

If the difference is **greater** than this statistic, then the difference would occur by chance less than 5 times out of 100. If the difference is **less** than this statistic, the difference might occur by chance more than 5 times out of 100. We say that the difference is not statistically significant at the 95-percent confidence level.

Example

Is the first birth rate for black women 40–44 years of age (1.08 per 1,000) significantly lower than the comparable rate for white women (1.55)? Both rates are based on more than 100 births (1,535 for black women and 14,108 for white women). The difference between the rates is 1.55 – 1.08 = .47. The statistic is then calculated as follows:

$$1.96\sqrt{\frac{1.08^2}{1,535} + \frac{1.55^2}{14,108}}$$

$$= 1.96 \times \sqrt{[(1.166/1,535) + (2.403/14,108)]}$$

$$= 1.96 \times \sqrt{0.00076 + 0.00017}$$

$$= 1.96 \times \sqrt{0.00093}$$

$$= 1.96 \times .03$$

$$= .06$$

The difference between the rates (.47) is greater than this statistic (.06). Therefore, the difference is statistically significant at the 95-percent confidence level.

Testing differences between two percents

When testing the difference between two percents, both percents must meet the following conditions:

$$B \times p > = 5 \text{ and } B \times q > = 5$$

where:

B = number of births in the denominator

$$p =$$
percent divided by 100 $q = 1 - p$

When both percents meet these conditions then the difference between the two percents is considered statistically significant if it exceeds the statistic in the formula below. This statistic equals 1.96 times the standard error for the difference between two percents.

1.96
$$\sqrt{p(1-p)(\frac{1}{B_1}+\frac{1}{B_2})}$$

where:

 B_1 = number of births in the denominator for the first percent B_2 = number of births in the denominator for the second percent

$$\rho = \frac{B_1 \, p_1 + B_2 \, p_2}{B_1 + B_2}$$

 p_1 = first percent divided by 100 p_2 = second percent divided by 100

Example

Is the percent of births to Hispanic women that were to unmarried women higher in Alaska (28.8 percent) than in Alabama (23.0). The number in the denominator was 1,345 in Alabama and 593 in Alaska. The necessary conditions are met for both percents (calculations not shown). The difference between the two percents is .288 – .230 = .058. The statistic is then calculated as follows:

$$1.96 \sqrt{.248(.752) (.00243)} = 1.96 \times \sqrt{.00045}$$

= 1.96 x .021
= .042

The difference between the percents (.058) is greater than this statistic (.042). Therefore, the difference is statistically significant at the 95-percent confidence level.

Definitions of medical terms

The 1989 revision of the U.S. Standard Certificate of Live Birth includes several maternal and infant health items in checkbox format, including obstetric procedures, medical risk factors, complications of labor and/or delivery, abnormal conditions of the newborn, and congenital anomalies of the child (figure I). The definitions which follow are adapted and abbreviated from a set of definitions compiled by a committee of Federal and State health statistics officials for the National Association of Public Health Statistics and Information Systems, formerly known as the Association for Vital Records and Health Statistics (76).

Medical risk factors for this pregnancy

Anemia—Hemoglobin level of less than 10.0 g/dL during pregnancy or a hematocrit of less than 30 percent during pregnancy. Cardiac disease—Disease of the heart.

Acute or chronic lung disease—Disease of the lungs during pregnancy.

Diabetes—Metabolic disorder characterized by excessive discharge of urine and persistent thirst; includes juvenile onset, adult onset, and gestational diabetes during pregnancy.

Genital herpes—Infection of the skin of the genital area by herpes simplex virus.

Hydramnios/oligohydramnios—Any noticeable excess (hydramnios) or lack (oligohydramnios) of amniotic fluid.

Hemoglobinopathy—A blood disorder caused by alteration in the genetically determined molecular structure of hemoglobin (example: sickle cell anemia).

Hypertension, chronic—Blood pressure persistently greater than 140/90, diagnosed prior to onset of pregnancy or before the 20th week of gestation.

Hypertension, pregnancy-associated—An increase in blood pressure of at least 30 mm Hg systolic or 15 mm Hg diastolic on two measurements taken 6 hours apart after the 20th week of gestation.

Eclampsia—The occurrence of convulsions and/or coma unrelated to other cerebral conditions in women with signs and symptoms of pre-eclampsia.

Incompetent cervix—Characterized by painless dilation of the cervix in the second trimester or early in the third trimester of pregnancy, with premature expulsion of membranes through the cervix and ballooning of the membranes into the vagina, followed by rupture of the membranes and subsequent expulsion of the fetus.

Previous infant 4,000+ grams—The birth weight of a previous live-born child was over 4,000+ grams (8 pounds 14 ounces).

Previous preterm or small-for-gestational-age infant—Previous birth of an infant prior to term (before 37 completed weeks of gestation) or of an infant weighing less than the tenth percentile for gestational age using a standard weight for age chart.

Renal disease—Kidney disease.

Rh sensitization—The process or state of becoming sensitized to the Rh factor as when an Rh-negative woman is pregnant with an Rh-positive fetus.

Uterine bleeding—Any clinically significant bleeding during the pregnancy taking into consideration the stage of pregnancy; any second or third trimester bleeding of the uterus prior to the onset of labor.

Obstetric procedures

Amniocentesis—Surgical transabdominal perforation of the uterus to obtain amniotic fluid to be used in the detection of genetic disorders, fetal abnormalities, and fetal lung maturity.

Electronic fetal monitoring—Monitoring with external devices applied to the maternal abdomen or with internal devices with an electrode attached to the fetal scalp and a catheter through the cervix into the uterus, to detect and record fetal heart tones and uterine contractions.

Induction of labor—The initiation of uterine contractions before the spontaneous onset of labor by medical and/or surgical means for the purpose of delivery.

Stimulation of labor—Augmentation of previously established labor by use of oxytocin.

Tocolysis—Use of medications to inhibit preterm uterine contractions to extend the length of pregnancy and, therefore, avoid a preterm birth.

Ultrasound—Visualization of the fetus and the placenta by means of sound waves.

38a. MEDICAL RISK FACTORS FOR THIS PREGNANCY (Check all that apply)	40. COMPLICATIONS OF LABOR AND/OR DELIVERY (Check all that apply)	43. CONGENITAL ANOMALIES OF CHILD (Check all that apply)
Anemia (Hct. <30/Hgb. <10)	Febrile (> 100 °F. or 38 °C.)	Anencephalus
Hypertension, chronic 08 Hypertension, pregnancy-associated 09 Eclampsia 10 Incompetent cervix 11 Previous infant 4000 + grams 12	Precipitous labor (< 3 hours) 08 ☐ Prolonged labor (> 20 hours) 09 ☐ Dysfunctional labor 10 ☐ Breech/Malpresentation 11 ☐ Cephalopelvic disproportion 12 ☐	Heart malformations
Previous preterm or small-for-gestational-age	Cord prolapse 13 □ Anesthetic complications 14 □ Fetal distress 15 □ None 00 □ Other 16 □	Tracheo-esophageal fistula/ Esophageal atresia09 Omphalocele/ Gastroschisis10 Other gastrointestinal anomalies (Specify)11
Other	41. METHOD OF DELIVERY (Check all that apply)	Malformed genitalia
(Complete all items) Tobacco use during pregnancy Yes □ No □ Average number cigarettes per day Alcohol use during pregnancy Yes □ No □ Average number drinks per week	Vaginal 01 □ Vaginal birth after previous C-section 02 □ Primary C-section 03 □ Repeat C-section 04 □ Forceps 05 □ Vacuum 06 □	Cleft lip/palate
Weight gained during pregnancylbs. 39. OBSTETRIC PROCEDURES (Check all that apply) Amniocentesis	42. ABNORMAL CONDITIONS OF THE NEWBORN (Check all that apply) Anemia (Hct. <39/Hgb. < 13)	(Specify) 19 Down's syndrome 20 Other chromosomal anomalies (Specify)
Electronic fetal monitoring	Hyaline membrane disease/RDS 04 □ Meconium aspiration syndrome 05 □ Assisted ventilation <30 min	None

Figure I. Selected maternal and infant health items from the 1989 revision of the U.S. Standard Certificate of Live Birth

Complications of labor and/or delivery

Febrile—A fever greater than 100 degrees F. or 38 C. occurring during labor and/or delivery.

Meconium, moderate/heavy—Meconium consists of undigested debris from swallowed amniotic fluid, various products of secretion, excretion and shedding by the gastrointestinal tract; moderate to heavy amounts of meconium in the amniotic fluid noted during labor and/or

Premature rupture of membranes (more than 12 hours)—Rupture of the membranes at any time during pregnancy and more than 12 hours before the onset of labor.

Abruptio placenta—Premature separation of a normally implanted placenta from the uterus.

Placenta previa—Implantation of the placenta over or near the internal opening of the cervix.

Other excessive bleeding-The loss of a significant amount of blood from conditions other than abruptio placenta or placenta previa.

Seizures during labor—Maternal seizures occurring during labor from any cause.

Precipitous labor (less than 3 hours)—Extremely rapid labor and delivery lasting less than 3 hours.

Prolonged labor (more than 20 hours)—Abnormally slow progress of labor lasting more than 20 hours.

Dysfunctional labor—Failure to progress in a normal pattern of labor.

Breech/malpresentation—At birth, the presentation of the fetal buttocks rather than the head, or other malpresentation.

Cephalopelvic disproportion—The relationship of the size, presentation, and position of the fetal head to the maternal pelvis which prevents dilation of the cervix and/or descent of the fetal head.

Cord prolapse—Premature expulsion of the umbilical cord in labor before the fetus is delivered.

Anesthetic complications—Any complication during labor and/or delivery brought on by an anesthetic agent or agents.

Fetal distress—Signs indicating fetal hypoxia (deficiency in amount of oxygen reaching fetal tissues).

Abnormal conditions of the newborn

Anemia—Hemoglobin level of less than 13.0 g/dL or a hematocrit of less than 39 percent.

Birth injury—Impairment of the infant's body function or structure due to adverse influences which occurred at birth.

Fetal alcohol syndrome—A syndrome of altered prenatal growth and development occurring in infants born of women who consumed excessive amounts of alcohol during pregnancy.

Hyaline membrane disease/RDS-A disorder primarily of prematurity, manifested clinically by respiratory distress and pathologically by pulmonary hyaline membranes and incomplete expansion of the lungs at birth.

Meconium aspiration syndrome—Aspiration of meconium by the fetus or newborn, affecting the lower respiratory system.

Assisted ventilation (less than 30 minutes)—A mechanical method of assisting respiration for newborns with respiratory failure.

Assisted ventilation (30 minutes or more)—Newborn placed on assisted ventilation for 30 minutes or longer.

Seizures—A seizure of any etiology.

Congenital anomalies of child

Anencephalus—Absence of the cerebral hemispheres.

Spina bifida/meningocele—Developmental anomaly characterized by defective closure of the bony encasement of the spinal cord, through which the cord and meninges may or may not protrude.

Hydrocephalus—Excessive accumulation of cerebrospinal fluid within the ventricles of the brain with consequent enlargement of the cranium.

Microcephalus—A significantly small head.

Other central nervous system anomalies—Other specified anomalies of the brain, spinal cord, and nervous system.

Heart malformations—Congenital anomalies of the heart.

Other circulatory/respiratory anomalies—Other specified anomalies of the circulatory and respiratory systems.

Rectal atresia/stenosis—Congenital absence, closure, or narrowing of the rectum.

Tracheo-esophageal fistula/Esophageal atresia—An abnormal passage between the trachea and the esophagus; esophageal atresia is the congenital absence or closure of the esophagus.

Omphalocele/gastroschisis—An omphalocele is a protrusion of variable amounts of abdominal viscera from a midline defect at the base of the umbilicus. In gastroschisis, the abdominal viscera protrude through an abdominal wall defect, usually on the right side of the umbilical cord insertion.

Other gastrointestinal anomalies—Other specified congenital anomalies of the gastrointestinal system.

Malformed genitalia—Congenital anomalies of the reproductive organs.

Renal agenesis—One or both kidneys are completely absent.

Other urogenital anomalies—Other specified congenital anomalies of the organs concerned in the production and excretion of urine, together with organs of reproduction.

Cleft lip/palate—Cleft lip is a fissure or elongated opening of the lip; cleft palate is a fissure in the roof of the mouth. These are failures of embryonic development.

Polydactyly/syndactyly/adactyly—Polydactyly is the presence of more than five digits on either hands and/or feet; syndactyly is having fused or webbed fingers and/or toes; adactyly is the absence of fingers and/or toes.

Club foot—Deformities of the foot, which is twisted out of shape or position.

Diaphragmatic hernia—Herniation of the abdominal contents through the diaphragm into the thoracic cavity usually resulting in respiratory distress.

Other musculoskeletal/integumental anomalies—Other specified congenital anomalies of the muscles, skeleton, or skin.

Down's syndrome—The most common chromosomal defect with most cases resulting from an extra chromosome (trisomy 21).

Other chromosomal anomalies—All other chromosomal aberrations.

Related reports

Many of the topics discussed in this report are covered in more analytic detail in other reports published by NCHS. Topics of reports published in the past 5 years include Hispanic origin births (4); twin and triplet births (62, 63); teenage birth rates by State (6, 21); birth rates by educational attainment of the mother (77); cesarean deliveries, attendant at birth, place of delivery, and obstetric procedures (53, 78); births to unmarried mothers (23); trends in pregnancies and pregnancy rates (7), and trends in smoking (32).

This report presents summary tabulations from the final natality statistics for 1998. The National Center for Health Statistics will respond to requests for unpublished data whenever possible.

	Contents	
Abstract	Total fertility rate 6	Complications of labor and/or
Highlights	Births and birth rates by State 6	delivery
Introduction 2	Birth rates for teenagers 7	Attendant at birth and place of
Methods	Sex ratio8	delivery
Demographic characteristics 3	Month of birth 8	Method of delivery
Births and birth rates 3	Day of week of birth 8	Infant health characteristics 14
Number of births 3	Births to unmarried women 8	Period of gestation 14
Crude birth rate	Age of father 9	Birthweight
Fertility rate 3	Educational attainment 9	Apgar score 16
Age of mother 4	Maternal lifestyle and health	Abnormal conditions of the
Teenagers 4	characteristics 9	newborn
Women aged 20 years and over:	Weight gain	Congenital anomalies 16
Women in their twenties 5	Medical risk factors 10	Multiple births
Women in their thirties 5	Tobacco use during pregnancy 10	References
Women in their forties 6	Alcohol use during pregnancy 11	List of tables
Births to women aged 50 years	Medical services utilization 12	Guide to tables in Births: Final Data
and over6	Prenatal care 12	for 1998
Live-birth order 6	Obstetric procedures 13	Technical notes 86

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