Longitudinal Employer - Household Dynamics

LEHD Data Documentation LEHD-OVERVIEW-S2008

LEHD Infrastructure files in the Census RDC - Overview
Revision : 413

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This document reports the results of research and analysis undertaken by the U.S. Census Bureau staff. This document is released to inform interested parties of ongoing research and to encourage discussion of work in progress. This research is a part of the U.S. Census Bureau's Longitudinal Employer-Household Dynamics Program (LEHD), which is partially supported by the National Science Foundation Grant SES-9978093 to Cornell University (Cornell Institute for Social and Economic Research), the National Institute on Aging Grant 5 R01 AG018854-02, and the Alfred P. Sloan Foundation. The views expressed herein are attributable only to the author(s) and do not represent the views of the U.S. Census Bureau, its program sponsors or data providers. The U.S. Census Bureau supports external researchers use of these data through the Research Data Centers (see www.ces.census.gov). For other questions regarding the data, please contact Jeremy S. Wu, Program Manager, U.S. Census Bureau, LEHD Program, Center for Economic Studies, Room 6H141, 4600 Silver Hill Rd., Suitland, MD 20233, USA. http://lehd.did.census.gov.

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Overview of LEHD Infrastructure

The Longitudinal Employer-Household Dynamics (LEHD) Infrastructure files available in the Research Data Center (RDC) is structured as individual components. A big-picture overview of it can be found at http://lehd.did.census.gov/led/library/techpapers/tp-2006-01.pdf, which was published as **?**. Figure 1.1 provides an overview of the flow of data elements through the LEHD data creation process.

Currently, the core outputs of the data creation process are the Quarterly Workforce Indicators (QWI), shown in Figure 1.1, and the OnTheMap (OTM) data. The LEHD Infrastructure files in the RDC environment do not contain any public-use data (both the aggregated QWI and the OTM data are available to the general public), nor does it contain any information related to the disclosure limitation measures used in the QWI (for more information on the disclosure limitation techniques, see Abowd et al. (2006) and Abowd et al. (2006) for a discussion).

1.1 UPDATES

1.1.1 October 2010: S2008 release

This is the second release of the LEHD Infrastructure files. It contains data that covers the years up to and including 2008Q1. We refer to it as the 'S2008' snapshot of the LEHD Infrastructure files. The data was pulled from LEHD archives as a coherent ensemble in October 2009.

Process ID	Latest creation date
brb	2005-05-21
ecf	2009-08-12
edf	2009-08-12
ehf	2009-08-07
es202	2009-08-05
gal	2009-08-05
icf	2009-08-12
qwi	2009-08-25
spf	2009-08-12
u2w	2009-08-18

After pulling the files from LEHD production archives, several research-related improvements are made to the files, fixing minor data inconsistencies or updating documentation. In the S008 Snapshot, the SAS header of the files contains an identifier tag that allows to uniquely track (most) files. A "proc contents" can show that information.

1.1.2 August 2008: S2004 release

This is the first release of the LEHD Infrastructure files. It contains data that covers the years up to and including 2004Q1. We refer to it as the 'S2004' snapshot of the LEHD Infrastructure files. The data was

Figure 1.1: Data flow view of LEHD Infrastructure

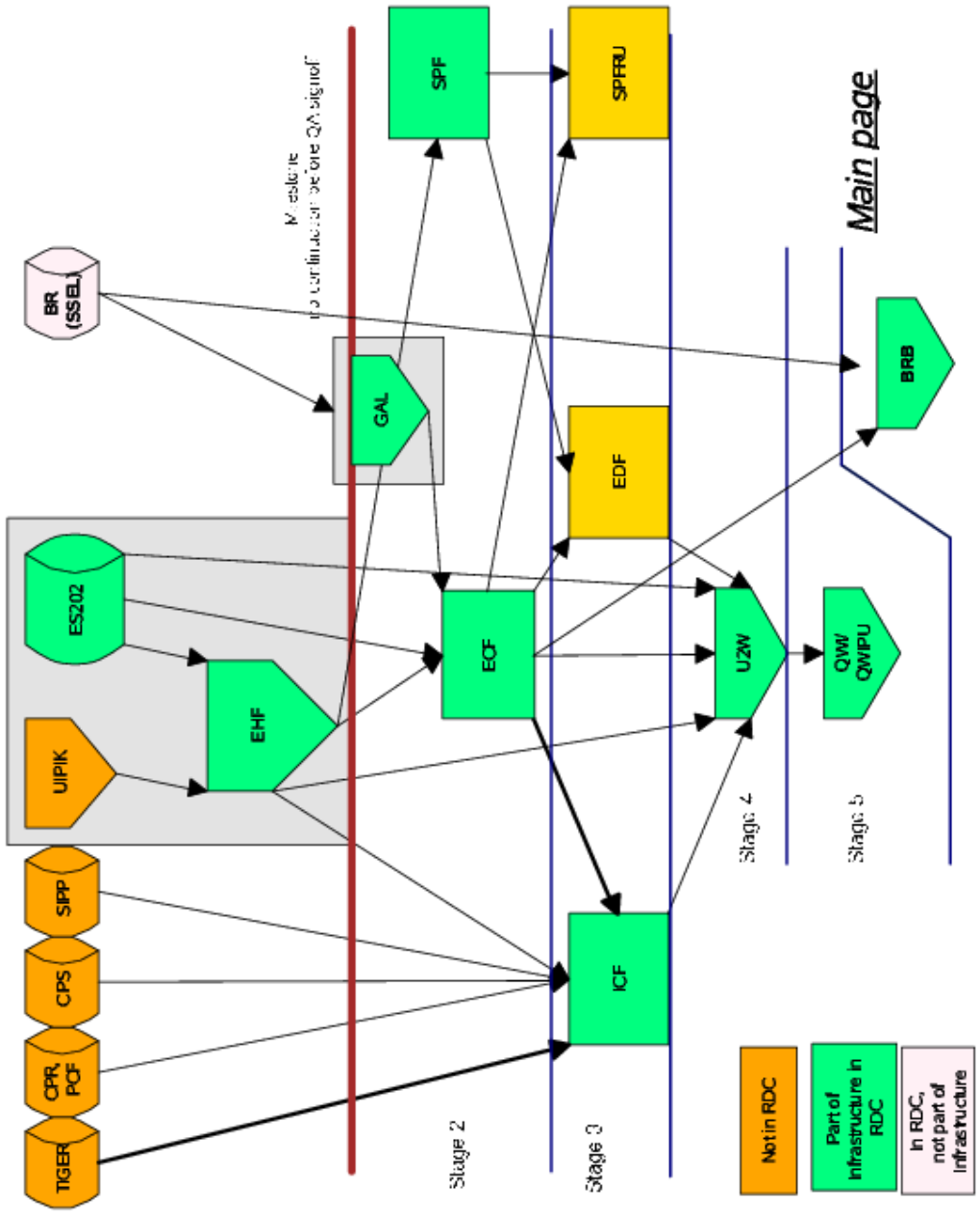

Table 1.1: LEHD components

Name and abbreviation	CES abbr. if different	Name of FTI version	CES abbreviation of FTI version
Business Register Bridge (BRB)		(all)	
Employer Characteristics File (ECF)		ECFT26	ect
Employment History Files (EHF)			
ES-202 (ES-202)	es2	ECFT26	ect
Individual Characteristics File (ICF)		ICFT26	ict
Geocoded Address List (GAL)		GALT26	gat
Quarterly Workforce Indicators (QWI) (establishment level)			
Successor-Predecessor File (SPF)			
Unit-to-Worker Impute (U2W)			

pulled from LEHD archives as a coherent ensemble over the course of 2005 and 2006.

Improvements are made to the files, fixing minor data inconsistencies or updating documentation. To identify the version of the files in the data archive, a file called *version.txt* is at the root of each data directory, e.g., *u2w/version.txt*. The file will contain the name of the data, the snapshot number, and the date stamp of the most recent file within the data. As of the writing of this document,

```
./brb/version.txt: BRB S2004 2005-06-23
./ecf/version.txt: ECF S2004 2007-05-17
./ehf/version.txt: EHF S2004 2006-03-29
./gal/version.txt: GAL S2004 2008-03-27
./icf/version.txt: ICF S2004 2007-06-01
./u2w/version.txt: U2W S2004 2008-03-27
./qwi/version.txt: QWI S2004 2007-03-30
./spf/version.txt: SPF S2004 2006-06-28
./es202/version.txt: ES202 S2004 2007-02-09
./ecft26/version.txt: ECFT26 S2004 2007-05-17
./galt26/version.txt: GALT26 S2004 2008-03-07
./icft26/version.txt: ICFT26 S2004 2007-06-03
```

1.2 TREATMENT OF FEDERAL TAX INFORMATION

Some components have Title-26 protected variables, which are kept as separate components for tracking and monitoring purposes, but are not documented separately. Such T26 components need to be requested separately, and as of the writing of this documentation, will trigger additional proposal review. Table 1.1 shows the nine components and their Federal Tax Information (FTI) counterparts, if present, as they are available in the RDC.

1.3 IDENTIFIERS

In general, linkages between the different files are created using deterministic match-merge techniques. Person, firm, and establishment identifiers allow users to link all LEHD Infrastructure files. Throughout, all Social Security Numbers (SSNs) have been replaced by Protected Identity Keys (PIKs) - no SSNs are available anywhere in this data. In addition to within LEHD identifiers such as the PIK, the ICF also contains additional person identifiers linking to Census survey data: (Current Population Survey (CPS), and Survey of Income and Program Participation (SIPP)). Note that these are generally the Census-internal identifiers and may not have a direct correspondence to the identifiers on the public-use files.

Firm identifiers are called State employer identification numbers (SEINs). The identifiers are constructed internally by LEHD, and generally, but not always, reflect an entity reporting unemployment insurance (UI) taxes to state authorities. "Establishments" (more precisely: reporting units) are identified by SEIN reporting unit (SEINUNIT). Establishments and firms are structured as one would expect with establishments listed hierarchically within each firm. Therefore to uniquely identify an establishment both the SEIN and SEINUNIT must be used. The firm and establishment identifiers are state and firm-structure-specific - within the LEHD Infrastructure files, there is no straighforward method of linking units of a firm with multiple tax reporting entities (SEINs). Although the vast majority of firms have only one SEIN, a firm, depending on its structure may have multiple SEINs operating both within and across state boundaries. Although the federal Employer Identification Number (EIN) is available and can be used to link SEINs within and across states, the EIN suffers from similar problems as the SEIN. The identifier is not necessarily unique within a firm, is designed for tax reporting, and the structure of EINs within a firm is arbitrary. The Census Bureau recognizes the limitations of administrative identifiers and has addressed this problem on the Business Register (BR) and the LBD. The BRB files are used to link to the Business Register (BR), Longitudinal Business Database (LBD) and other Census economic data. Note that the BRB is in general a many-to-many link file. The BRB does permit assigning all SEINs and SEINUNITs to a common *alpha* (the overall firm identifier inthe BR). However, exact identifier-based establishment-to-establishment matches between BR/LBD and LEHD data are generally not possible for establishments part of multi-establishment firms.

For any further information, refer to the component-specific documentation.

1.4 AVAILABILITY OF DATA

Availability of LEHD Infrastructure files is conditional on (i) the data files having been processed in the LEHD QWI Production system, and subsequently integrated into the LEHD Infrastructure and (ii) permission for use in research having been granted by LEHD's state partner.

The standard Memorandum of Understanding (MOU) between the Census Bureau and its state partners precludes access to person and firm names and physical addresses as provided in the ES-202 data. As described below, there are geographic identifiers that are derived in the GAL that can be used for analysis and integrating data for appropriate and approved purposes.

As of December 17, 2010, 47 states have been processed for the complete set of LEHD data files and integrated. The GAL is available for all 50 states plus the District of Columbia, but certain crosswalks do not exist if ES-202 records were not available for that state. As of February 1, 2008, 30 states have granted permission to use the UI-derived EHF and ICF files and the QCEW-derived ECF files in the RDC network. Table 1.2 lists permissions by state. LEHD continues to work on expanding the list of permissions. Check with the RDC administrators for the most up-to-date list.

In general, LEHD Infrastructure files are available from 2000 onwards. However, the availability of historical data prior to 2000 varies significantly across states. Table 1.3 tabulates the availability by component and state in the S2008 snapshot. This table should be cross-referenced with Table 1.2 when evaluating the feasibility of a project. A full list of files for each type of file is provided in each detailed section.

Table 1.2: RDC usage permission, by state

Alaska (AK): (no)

Alabama (AL): (no)

Arkansas (AR): **yes**

Arizona (AZ): (no)

California (CA): **yes**

Colorado (CO): **yes**

Connecticut (CT): (no)

District of Columbia (DC): (no)

Delaware (DE): no

Florida (FL): **yes**

Georgia (GA): **yes**

Hawaii (HI): **yes**

Iowa (IA): **yes**

Idaho (ID): **yes**

Illinois (IL): **yes**

Indiana (IN): **yes**

Kansas (KS): (no)

Kentucky (KY): (no)

Louisiana (LA): **yes**

Massachusetts (MA): (no)

Maryland (MD): **yes**

Maine (ME): **yes**

Michigan (MI): no

Minnesota (MN): (no)

Missouri (MO): (no)

Mississippi (MS): (no)

Montana (MT): **yes**

North Carolina (NC): **yes**

North Dakota (ND): (no)

Nebraska (NE): (no)

New Hampshire (NH): (no)

New Jersey (NJ): **yes**

New Mexico (NM): **yes**

Nevada (NV): **yes**

New York (NY): no

Ohio (OH): (no)

Oklahoma (OK): **yes**

Oregon (OR): **yes**

Pennsylvania (PA): (no)

Rhode Island (RI): **yes**

South Carolina (SC): **yes**

South Dakota (SD): (no)

Tennessee (TN): **yes**

Texas (TX): **yes**

Utah (UT): **yes**

Virginia (VA): **yes**

Vermont (VT): **yes**

Washington (WA): **yes**

Wisconsin (WI): **yes**

West Virginia (WV): **yes**

Wyoming (WY): (no)

Table 1.3: Data availability, by state and process

		Data set group										
		ecf	ecft26	ehf	es202	gal	galt26	icf	icft26	qwi	spf	u2w
Covered states		188	2	329	2,674	1,191	646	188	47	47	94	46
		(417.76)	(9.01)	(859.12)	(238.73)	(70.79)	(18.98)	(55.60)	(28.38)	(537.00)	(1.75)	(36.37)
Alaska	ak	4	.	7	36	20	14	4	1	1	2	1
		(0.68)		(2.86)	(0.35)	(0.14)	(0.05)	(0.20)	(0.11)	(0.95)	(0.00)	(0.06)
Alabama	al	4	.	7	32	19	14	4	1	1	2	1
		(3.64)		(5.94)	(1.54)	(1.06)	(0.33)	(0.64)	(0.34)	(5.35)	(0.01)	(0.45)
Arkansas	ar	4	.	7	26	18	14	4	1	1	2	1
		(1.70)		(3.06)	(0.80)	(0.59)	(0.20)	(0.40)	(0.21)	(2.75)	(0.01)	(0.22)
Arizona	az	4	.	7	20	16	14	4	1	1	2	1
		(2.57)		(19.67)	(2.18)	(1.17)	(0.37)	(1.26)	(0.64)	(3.69)	(0.01)	(0.21)
California	ca	4	2	7	72	29	14	4	1	1	2	1
		(69.32)	(9.01)	(126.97)	(38.62)	(8.94)	(2.05)	(7.09)	(3.33)	(91.08)	(0.37)	(5.41)
Colorado	co	4	.	7	76	30	14	4	1	1	2	1
		(9.24)		(22.31)	(5.60)	(1.36)	(0.34)	(1.34)	(0.68)	(11.86)	(0.04)	(0.86)
Delaware	de	4	.	7	48	23	14	4	1	1	2	1
		(1.11)		(1.74)	(0.47)	(0.21)	(0.07)	(0.18)	(0.09)	(1.32)	(0.00)	(0.06)
Florida	fl	4	.	7	80	30	14	4	1	1	2	1
		(30.40)		(63.30)	(19.26)	(5.12)	(1.33)	(3.81)	(1.91)	(38.73)	(0.15)	(3.10)
Georgia	ga	4	.	7	44	22	14	4	1	1	2	1
		(8.98)		(26.91)	(4.57)	(2.08)	(0.62)	(1.93)	(0.97)	(14.17)	(0.04)	(1.19)
Hawaii	hi	4	.	7	53	25	14	4	1	1	2	1
		(1.56)		(2.56)	(0.78)	(0.30)	(0.09)	(0.22)	(0.12)	(2.37)	(0.00)	(0.12)
Iowa	ia	4	.	7	76	30	14	4	1	1	2	1
		(5.53)		(5.88)	(3.67)	(0.81)	(0.23)	(0.52)	(0.28)	(5.32)	(0.01)	(0.41)
Idaho	id	4	.	7	72	29	14	4	1	1	2	1
		(2.78)		(5.94)	(1.75)	(0.40)	(0.10)	(0.35)	(0.18)	(4.08)	(0.01)	(0.21)
Illinois	il	4	.	7	76	30	14	4	1	1	2	1
		(22.08)		(48.80)	(12.98)	(3.38)	(0.84)	(2.71)	(1.37)	(28.92)	(0.09)	(1.62)
Indiana	in	4	.	7	44	22	14	4	1	1	2	1
		(5.72)		(25.55)	(3.21)	(1.40)	(0.42)	(1.29)	(0.69)	(9.37)	(0.03)	(0.82)
Kansas	ks	4	.	7	76	30	14	4	1	1	2	1
		(5.13)		(12.12)	(3.23)	(0.76)	(0.20)	(0.77)	(0.39)	(6.82)	(0.02)	(0.41)
Kentucky	ky	4	.	7	32	19	14	4	1	1	2	1
		(2.91)		(8.94)	(1.70)	(0.90)	(0.28)	(0.74)	(0.39)	(4.39)	(0.01)	(0.38)
Louisiana	la	4	.	7	76	30	14	4	1	1	2	1
		(7.17)		(17.42)	(3.44)	(1.19)	(0.30)	(0.94)	(0.49)	(8.35)	(0.07)	(0.61)
Maryland	md	4	.	7	76	30	14	4	1	1	2	1
		(9.47)		(28.73)	(5.79)	(1.39)	(0.35)	(1.41)	(0.73)	(13.27)	(0.02)	(0.83)

(cont)

Table 1.3 – Continued

		Data set group										
		ecf	ecft26	ehf	es202	gal	galt26	icf	icft26	qwi	spf	u2w
Maine	me	4	.	7	52	24	14	4	1	1	2	1
		(2.25)		(3.25)	(1.38)	(0.38)	(0.11)	(0.24)	(0.13)	(3.01)	(0.01)	(0.14)
Michigan	mi	4	.	7	44	22	14	4	1	1	2	1
		(10.26)		(17.75)	(4.89)	(2.28)	(0.66)	(1.41)	(0.76)	(9.99)	(0.04)	(0.56)
Minnesota	mn	4	.	7	58	30	14	4	1	1	2	.
		(8.27)		(15.66)	(5.25)	(1.36)	(0.36)	(0.95)	(0.50)	(9.14)	(0.03)	
Missouri	mo	4	.	7	76	30	14	4	1	1	2	1
		(11.26)		(24.73)	(5.69)	(1.47)	(0.42)	(1.30)	(0.68)	(12.53)	(0.03)	(1.03)
Mississippi	ms	4	.	7	22	17	14	4	1	1	2	1
		(1.27)		(2.36)	(0.68)	(0.59)	(0.21)	(0.36)	(0.19)	(2.13)	(0.00)	(0.15)
Montana	mt	4	.	7	64	27	14	4	1	1	2	1
		(2.07)		(3.28)	(1.29)	(0.29)	(0.08)	(0.22)	(0.12)	(2.85)	(0.01)	(0.10)
North Carolina	nc	4	.	7	73	30	14	4	1	1	2	1
		(13.93)		(33.90)	(8.57)	(2.12)	(0.62)	(1.95)	(0.99)	(27.47)	(0.07)	(1.70)
North Dakota	nd	4	.	7	44	22	14	4	1	1	2	1
		(0.91)		(1.45)	(0.45)	(0.17)	(0.06)	(0.13)	(0.07)	(1.34)	(0.00)	(0.07)
Nebraska	ne	4	.	7	40	21	14	4	1	1	2	1
		(1.87)		(3.39)	(0.97)	(0.40)	(0.14)	(0.32)	(0.17)	(3.08)	(0.01)	(0.20)
New Jersey	nj	4	.	7	56	25	14	4	1	1	2	1
		(13.63)		(19.81)	(8.34)	(2.08)	(0.59)	(1.66)	(0.83)	(15.31)	(0.03)	(0.85)
New Mexico	nm	4	.	7	76	30	14	4	1	1	2	1
		(3.03)		(5.09)	(1.78)	(0.49)	(0.13)	(0.40)	(0.21)	(3.48)	(0.01)	(0.21)
Nevada	nv	4	.	7	44	22	14	4	1	1	2	1
		(2.27)		(6.07)	(1.12)	(0.54)	(0.15)	(0.58)	(0.29)	(3.75)	(0.02)	(0.31)
New York	ny	4	.	7	76	30	14	4	1	1	2	1
		(34.51)		(50.58)	(15.90)	(5.13)	(1.29)	(3.64)	(1.84)	(24.74)	(0.09)	(1.48)
Ohio	oh	4	.	7	36	20	14	4	1	1	2	1
		(8.64)		(17.15)	(4.49)	(2.40)	(0.72)	(1.61)	(0.88)	(14.73)	(0.04)	(1.25)
Oklahoma	ok	4	.	7	40	21	14	4	1	1	2	1
		(3.28)		(5.62)	(1.97)	(0.78)	(0.25)	(0.53)	(0.28)	(4.64)	(0.01)	(0.32)
Oregon	or	4	.	7	76	30	14	4	1	1	2	1
		(7.11)		(14.52)	(3.45)	(1.02)	(0.26)	(0.88)	(0.45)	(10.75)	(0.03)	(0.62)
Pennsylvania	pa	4	.	7	72	29	14	4	1	1	2	1
		(19.19)		(41.14)	(12.01)	(3.14)	(0.80)	(2.26)	(1.20)	(21.21)	(0.06)	(1.60)
Rhode Island	ri	4	.	7	76	30	14	4	1	1	2	1
		(2.22)		(2.86)	(1.01)	(0.30)	(0.07)	(0.23)	(0.12)	(2.24)	(0.01)	(0.08)
South Carolina	sc	4	.	7	44	22	14	4	1	1	2	1
		(4.32)		(8.62)	(2.10)	(1.04)	(0.30)	(0.81)	(0.42)	(6.42)	(0.02)	(0.41)
South Dakota	sd	4	.	7	44	21	2	4	1	1	2	1

(cont)

Table 1.3 – Continued

		Data set group										
		ecf	ecft26	ehf	es202	gal	galt26	icf	icft26	qwi	spf	u2w
		(1.05)		(2.43)	(0.56)	(0.20)	(0.04)	(0.17)	(0.09)	(1.61)	(0.00)	(0.08)
Tennessee	tn	4	.	7	44	22	14	4	1	1	2	1
		(5.51)		(12.62)	(2.59)	(1.36)	(0.40)	(1.09)	(0.59)	(8.09)	(0.03)	(0.64)
Texas	tx	4	.	7	76	30	14	4	1	1	2	1
		(31.34)		(62.82)	(20.48)	(5.65)	(1.47)	(4.07)	(2.02)	(41.72)	(0.16)	(4.10)
Utah	ut	4	.	7	76	30	14	4	1	1	2	1
		(4.00)		(5.28)	(2.01)	(0.59)	(0.14)	(0.45)	(0.23)	(4.02)	(0.01)	(0.37)
Virginia	va	4	.	7	54	25	14	4	1	1	2	1
		(8.76)		(15.06)	(5.45)	(1.72)	(0.48)	(1.43)	(0.75)	(12.23)	(0.03)	(0.90)
Vermont	vt	4	.	7	36	20	14	4	1	1	2	1
		(0.75)		(1.08)	(0.32)	(0.17)	(0.06)	(0.12)	(0.06)	(1.15)	(0.00)	(0.04)
Washington	wa	4	.	7	76	30	14	4	1	1	2	1
		(12.95)		(27.18)	(7.88)	(1.82)	(0.45)	(1.50)	(0.76)	(17.74)	(0.07)	(0.93)
Wisconsin	wi	4	.	7	76	30	14	4	1	1	2	1
		(9.44)		(21.08)	(5.83)	(1.52)	(0.39)	(1.02)	(0.56)	(14.74)	(0.04)	(1.03)
West Virginia	wv	4	.	7	76	30	14	4	1	1	2	1
		(3.03)		(3.35)	(2.02)	(0.42)	(0.11)	(0.29)	(0.16)	(3.14)	(0.01)	(0.21)
Wyoming	wy	4	.	7	32	19	14	4	1	1	2	1
		(0.63)		(2.31)	(0.31)	(0.13)	(0.05)	(0.19)	(0.10)	(0.95)	(0.00)	(0.04)

Number of files for each data set group and state. Aggregate size of all files in GB in parentheses.

Files not currently available may become available in the next update to the LEHD Infrastructure. Availablility of core Infrastructure files is dependent on a state's participation in the Local Employment Dynamics (LED) program, and on permission having been given to make the files accessible in the RDC. The latest participant list can be found at the LEHD website at http://lehd.did.census.gov. The S2008 snapshot contains data on 47 states, not all of which are available to researchers.

1.5 PROCESSING FILES

LEHD Infrastructure files are significantly larger than even traditionally large research files such as the decennial census. In the current version, in all available states and years combined, information on 1,361,314,549 jobs is presented. There are 424,848,4602 quarterly observations on firms. Careful planning is required to ensure that adequate resources are available. To facilitate researchers in this endeavor, the research versions of the LEHD Infrastructure files in the RDC environment have additional random variables that allow for the selection of uniform random subsamples of firms (SEIN), establishments (SEINUNIT), and individuals (PIK). No such random variable is available on the EHF, since there is no single good strategy for selecting jobs. Tables in the documentation for individual components also contains information about the size on-disk of each file.

1.6 DISCLOSURE LIMITATION

Special disclosure and data use rules apply to analyses based on the micro-data from the LEHD Infrastructure file system. These data underlie the QWI, and research results are therefore subject to restrictions that insure the QWI disclosure limitation mechanism is not compromised. Disclosure limitation for the QWI uses noise infusion of the micro-data. The Disclosure Review Board (DRB) does not allow the release of any tabulations for sub-state geography that do not use the QWI noise infusion process. In addition, the required noise factors have not been placed on the RDC snapshot files as part of the DRB's normal rules limiting access to the specific parameters of its approved disclosure limitation methods. Only the DRB may approve the release of tabular output from the LEHD infrastructure file system. Sub-state geography tables will not be approved. National or multi-state tables may be approved provided they do not compromise the protection system. Model-based output is normally allowed. The chief disclosure officer for the RDC network will coordinate the reviews.

The underlying micro-data in the LEHD infrastructure file system were provided to the Census Bureau by states' Labor Market Information (LMI) offices under Memoranda of Understanding (also called Data Use Agreements) negotiated with each state. This process is part of the LED federal/state partnership, and places additional restrictions on the results that may be published. Current members of the LED partnership are shown on the LEHD main web page.

Publicly disclosing a single state's data, or any sub-state information such as Metropolitan Statistical Area (MSA) or Core-Based Statistical Area (CBSA), in identifiable form requires the permission of the state's LMI officer. When reporting results from studies that include multiple states, the results should be pooled across the states. State-specific controls can be included, but no coefficients therefrom reported. The identity of the LED member states is obviously not confidential. You may say which states were used in your analysis, and that you controlled for state-specific factors. The chief disclosure officer for the RDC network will review compliance with this requirement in consultation with the Assistant Division Chief for LEHD.

Chapter 2.
Business Register Bridge (BRB)

2.1 OVERVIEW

2.1.1 Definition of BRB

The Business Register Bridge (BRB) is a link file between LEHD employer microdata and Business Register (BR) firm and establishment microdata. Since the concepts of "firm" and "establishment" differ between the LEHD employer microdata and the BR, the Business Register Bridge (BRB) provides a crosswalk at various levels of business-unit aggregation. The most detailed crosswalk is at the level of Employer Identification Number (EIN) – State – 4-digit Standard Industry Classification (SIC) industry – county. The bridge includes the full list of establishments in the LEHD data and in the BR that are associated with the business units (e.g., EIN/4-digit SIC/State/County) in the crosswalk and measures of activity(e.g.,employment, sales).

The LBD Bridge (LBDB) is a link file between LEHD employer microdata and Longitudinal Business Database (LBD) longitudinal firm and establishment microdata. It was added after the original BRB creation, and is documented separately within this chapter, in Section 2.2.2.

2.1.2 Update frequency

The BRB and LBDB are only updated occassionally.

2.1.3 Acquisition process

The Business Register Bridge (BRB) requires presence of Business Register (BR) (see the BR codebook, yearly acquisition) and the ECF (quarterly updates).

The LBD Bridge (LBDB) requires presence of Longitudinal Business Database (LBD) and the ECF (quarterly updates).

2.1.4 Processing description

Extracts of the Business Register (BR) and the ECF are built, properly aggregated, and output into a single file. A more detailed description is available in Section 2.2.1.

For the LBDB, the Longitudinal Business Database (LBD) and the ECF are combined, properly aggregated, and output into a single file. A more detailed description is available in Section **??**.

2.1.5 Naming conventions

Three data files are produced and transferred. The data files from this process conform to LEHD naming conventions and are called

- `brb_us_xwalk`: the actual bridge, by year, at different levels of aggregation.
- `brb_us_ecflist`: list of SEINUNITs on the ECF, by quarter

- `brb_us_brlist`: list of EINs on the BR, by year

The LBDB files are named analogously, see Section **??**.

2.2 DETAILS

2.2.1 Characterizing the Bridge Between LEHD Data and Census Business Data

2.2.1.1 General Description

One of the many advantages of the LEHD database is the ability it offers to link information from Census Bureau business-level surveys (such as the Annual Survey of Manufacturers (ASM), or Business Expenditure Survey (BES)) to the set of workers employed by these units. The *LEHD Business Register Bridge (BRB)* provides researchers with the tool to make this linkage.

The LEHD data available through the RDCs is described in detail in other documents. In this document, we provide a description of the BRB itself as well as an overview of the business data that is available through this link.

The primary bridge between the LEHD data and the business data is the U.S. Census Bureau's annual Business Register (BR), a list of establishments the Bureau uses to develop the initial mailing list for the economic censuses and surveys. The BR contains data from several different sources. Primarily, however, the BR contains very reliable information on business identifiers, business organizational structure, and business location. All of this detail helps us to form links to the LEHD data.

Unfortunately, we are not able to directly form establishment-to-establishment linkages between LEHD data and the BR. The establishment identification system for the Business Register is the same as for all other Census Bureau business data products but different from the LEHD establishment identifier. Unfortunately, there is no one best way to form linkages between these data sources. There are many alternatives, and the optimal linking strategy depends on the research objective. To provide researchers with as much flexibility as possible, the BRB has been constructed as a crosswalk that allows for a number of different ways to integrate these data sources

2.2.1.2 File Structure and Contents

Identifiers We use three types of identifying variables in the construction of the crosswalk file. These are: business identifier, geographic information, and industry code. Employer Identification Number (EIN) is a nine-digit taxpayer identification number assigned by the Internal Revenue Service (IRS). It is a unique identifier for single units but not for multi-units. Geographic information such as state or county is available. 1987 Standard Industry Classification (SIC) codes are available in 4-digit level

Unit of observation The unit of observation on the BRB file is a unique EIN-State-SIC4-County record. All unique combinations of these identifiers that are found on either the LEHD data, the BR, or both will appear on the crosswalk.

We will use the EIN with 15 different combinations of geographic and industry information as follows:

- EIN
- EIN/SIC1
- EIN/SIC2
- EIN/SIC3
- EIN/SIC4
- EIN/STATE
- EIN/STATE/SIC1
- EIN/STATE/SIC2

- EIN/STATE/SIC3
- EIN/STATE/SIC4
- EIN/STATE/COUNTY
- EIN/STATE/COUNTY/SIC1
- EIN/STATE/COUNTY/SIC2
- EIN/STATE/COUNTY/SIC3
- EIN/STATE/COUNTY/SIC4

Structure of output files For complete technical description, see Section 2.4.

Crosswalk file The crosswalk file contains the following variables

Alpha: Ten-digit enterprise identifier

County: Three-digit county identifier

EIN: Nine-digit employer identifier

Flag_xxx: 15 one-digit match type flags. These flags represent the status of the match corresponding to each level of aggregation, one flag per unique id variable combination. Each flag takes on the value "M", "L", or "B". For example, `flag_e_c_2` is the flag variable when we use EIN/County/SIC2 as linking unit and `flag_e_s_4` is the flag when we use EIN/State/SIC4 as unit of matching.

M means that the business unit at this level of aggregation is matched.

L means that this business unit is observed only in the LEHD database.

B means that this business unit is observed only in the Business Register.

EIN/County/SIC4 is the most disaggregate level of aggregation we can use to match. So, it is obvious that if the flag value for the EIN State SIC4 County match is "M" then all 15 flags are "M".

SIC1: one-digit 1987 SIC

SIC2: two-digit 1987 SIC

SIC3: three-digit 1987 SIC

SIC4: four-digit 1987 SIC

State: Two-digit state abbreviation (e.g. `md`)

Stgeo: Two-digit State FIPS code (e.g. `24`)

Year: Calendar year

List files List files link different business identifiers that are only observed in one database to one of the fifteen level of aggregation used in matching

Business Register Identifiers: Census File Number (CFN), Permanent Plant Number (PPN), Alpha, etc. are captured on `brb_us_brlist.sas7bdat`

LEHD Identifiers: SEIN, SEINUNIT, etc. are captured on `brb_us_ecflist.sas7bdat`. *IMPORTANT:* The ECF list file is a quarterly file, not a yearly file!

2.2.1.3 How to Use The BRB

Some considerations Because there are many ways to use the BRB, finding the optimal way to use it for any given research project requires some researcher planning. The steps outlined here summarize the experience of the LEHD researcher staff in using this crosswalk for a variety of different research projects.

Before making use of the BRB, there are a number of questions a researcher must address, and the answer to these questions will determine how the BRB will be used. To illustrate this point, we take a research topic and cover, step by step, the decisions a researcher would face when identifying the best way to make use of the BRB to build an analytic dataset for the project.

Because there is not a common establishment ID variable on the Census and LEHD business files, the link between the files must be formed at a level of aggregation that is, for many multi-unit businesses, higher than an establishment. Both the set of link variables as well as the unit of observation for the analytic dataset must be selected by the researcher. Note that these need not be the same.

Choosing the Link Variables As noted, the BRB identifies all variables – state, county, and one-, two-, three-, and four-digit industry code – on which an EIN found among LEHD workforce traits and an EIN found on Census business data agree. In addition to EIN, any (or none) of these link variables may be chosen to merge together workforce traits and other business traits for analysis. When making this decision, observation counts in the resulting matched dataset as well as other factors should be considered. For example, if the analysis will focus on particular industries or regions, researchers may wish to require that linked business data agree on SIC or on state and county. In this case, any EIN the BRB indicates to be found on both files but not agreeing on state or industry would not be included in analysis. As we will discuss in the next section, it should be noted that the link variables do not necessarily determine the unit of observation for the analysis

Choosing the Base File and Unit of Observation There are three types of ways the LEHD data may be combined with Census business data to create research-ready datasets. These types are:

1. LEHD workforce traits (such as worker churning rates) at the establishment level (or higher) may be linked to more highly aggregated Census business traits (such as labor productivity). In this situation, the LEHD establishments form the "base file."

2. Establishment-level Census business traits (such as technology spending relative to a scaling measure) may be linked to more highly aggregated LEHD workforce traits. Here, Census data (such as the Annual Survey of Manufacturers) form the base file.

3. Traits aggregated on both sides may be combined using the crosswalk.

In short, researchers linking LEHD workforce traits to other Census business files may choose to aggregate LEHD traits, other business traits, or both. Note that by "aggregate," we mean that establishment-level data should be aggregated to the level of the link (EIN-county, 4-digit SIC, for example), or higher. The researcher must decide on which side (workforce traits or other business characteristics) it is important to preserve more detail.

Example Suppose we are interested in exploring how worker turnover impacts labor productivity for restaurants. There are two key decisions regarding identifier variables that must be made. Link traits as well as the unit of observation must be chosen. We hope to make it very clear that the two decisions need not be the same, and both will vary with the nature of the research question

A. Choosing the Link Level Because we are interested in restaurants only and because this is a two-digit industry trait, we will most likely want to use records from the BRB where flag_e_2 (at a minimum)='M'. Noting that county-level match rates are high and that a franchised restaurant in downtown Chicago may behave very differently from the same franchise in rural Illinois, we may also require that observations

entering our sample all agree on state and county as well and thus choose only to keep those BRB records where flag_e_c_2='M'

B. Choosing the Base File, Supplemental Files, and Unit of Observation From which data source – Census business data or LEHD data – would we like to preserve the most detailed data? Some researchers may in fact choose to sacrifice detail on both sides in favor of uniformity of variable construction. Regardless, because all variables that will characterize the unit of observation are available from other files, the BRB is not needed to obtain them. However, the unit of observation and the linkage unit are closely tied.

For this example, our goal is to characterize variation in labor productivity across restaurants and to determine if those with more worker turnover are less productive. Thus, we will most likely select Census business data as our "base" data source and will link establishment detail on productivity and other business traits to more aggregated workforce traits (in this example, the LEHD workforce aggregated would be the "supplemental" file). Note that this linking assumes that worker churning is similar for all restaurants in the same EIN state and county

Summary of How to Use This File:

Step 1 Make an extract from the BRB sub-setting on all records for each state and year that have a value of "M" for the match flag corresponding to these match variables. The variables to keep include all ID variables needed to make the match. For example, if we sub-set on flag_e_c_2='M', the match variables we keep from the BRB will be:

- EIN
- State
- SIC2
- County
- Year

CAUTION: One should make sure to sort the crosswalk to get unique observation per linking unit when using linking units less detailed than EIN/County/SIC4.

Step 2 Some Base and supplemental files have all the necessary variables such as EIN, State, SIC2, County, and Year. For example, the ASM and Census of Manufactures (CM) have these link variables as well as establishment identifiers such as CFN and PPN. In this case we can match the extract from the BRB with the base file or supplement file (after some aggregation). However, some files do have their own identifiers but not all link variables. In this case, we have to get additional variables from the list files we provide before matching the extract from the BRB with the files of interest. For example, some files have only CFN and year but not EIN. Thus, we must first obtain the CFN from BR list file before matching.

Step 3 Select a base file (Census business data or LEHD business data), a supplemental file, and a unit of observation for the final analytic dataset. The base file should be the file from which we could like to preserve the most detail (if aggregation level differences within the same observation are desired).

Step 4 From the base file, pull off all observations (matching by the link variables selecting in Step 2) that match to the BRB extract. If allowing for more detailed data from the base file, the dataset resulting from this step will have more observations than the BRB extract.

Step 5 If the LEHD data has been selected as the base file in Step 3, some collection of Census business data files will be used to construct the supplemental file. The most dis-aggregated level of detail that may be maintained on the supplemental file is defined by the link variables (EIN, state, one-digit SIC, county and year in this example). If the business data variables of interest are reported on the files at this level of aggregation or smaller (typically this will be at an establishment level), then the business data must be aggregated to the level defined by the link variables. Note that some business files contain records reported at higher levels of aggregation. In these cases, no additional aggregation is needed in the construction of the supplemental file. CAUTION: When adding variables at a higher level of aggregation, it is often preferred to use ratios of variables from the same dataset rather than levels of one variable only. For example, rather than using aggregated sales, it is often preferable to weight sales at each establishment by some fraction (where the fractions for each establishment sum to one) before aggregating across establishments.

Step 6 Link the supplemental file to the joined base file and BRB extract. Use the same variables used to define the level of aggregation of the supplemental file.

Step 7 The construction of the analytic dataset is now complete. Note, however, that not all records in the dataset need be constructed at the same level of aggregation.

2.2.1.4 Some warnings and caveats

Active establishments In the construction of the crosswalk, duplicates and non-active establishments are deleted (not included) based on Census activity flags from the BR. Invalid, missing, illegible, or out-of-scope industry code, invalid geography, or even zero payroll are *not* grounds for exclusion from the BRB. In particular, invalid codes can and do appear on the BR, and are carried through unchanged.

Discrepancies in geo and industry codes There may be discrepancies between the BR and ES-202 based data for a variety of reasons. Processing issues imply that geo and industry codes may be missing or out of bounds on BR, especially for entrants. It is an open question whether the ES-202 might get information on industry and geo faster than the BR. Note that there is some evidence that suggests that this is the case: Census currently receives a list of industry codes from Bureau of Labor Statistics (BLS) (from its ES-202 processing) for new EINs. Census has typically found these industry codes to be more reliable than either the PBA (principal business activity from income tax forms for businesses) codes they receive from IRS or the industry codes from Social Security Administration (SSA) extracted from the SS-4 form (the form used to apply for an EIN).

In terms of preference, the preference ordering that Census typically uses for industry codes is:

1. Direct Census collection in economic censuses or annual surveys (for most businesses this means only once every five years).
2. BLS codes
3. SSA codes
4. IRS codes

2.2.2 Extension of BRB methodology to 1997-2004 NAICS linkage using the LBD

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(The full version of this document is available on the RDC.)

This section briefly documents application of the BRB methodology to construct a NAICS-based bridge between the ECF and the LBD for the years 1997-2004. The LBD is a longitudinally linked version of BR list of all establishments with paid employees. The main reason for constructing the new bridge was to allow matching of business data for years 2002-2004. The bridge for recent years has to differ somewhat from the original because of the transition from SIC to NAICS industry coding and because the BR underwent a redesign in 2002. To allow researchers some leeway in which industry coding they use and to enable comparison of results based on the two bridges, the NAICS/LBD bridge spans 1997-2004. To distinguish it from the original BRB, we have dubbed this the LBDB.

The LBDB was last computed on the S2004 snapshot, and has not yet been updated for the S2008.

2.2.2.1 Methods

The new bridge was constructed starting from the code use to create the BRB, which I then modified to deal with differences between the BR and the LBD and the change in industry coding. One difference between the BR and the LBD is that the LBD eliminates the large number of payroll-inactive records that are present in the BR files. These are generally establishments that have gone out of business but which are not immediately purged from the BR. This absence of inactive records is the most substantial difference between the BRB and the LBDB. In the 1997-2001 part of the BRB, 8-10% of inactive BR establishments match to the ECF at least at the EIN/state/county level, so excluding inactives resulted in dropping about 300,000-400,000 matches. It is more relevant to know how many of those establishments show up in business censuses or surveys (and whether they match to LEHD records that are active), but I have not looked at those issues yet.

The second change is the switch from matching based on 4-digit SIC codes to matching based on 6-digit NAICS codes. In the current crosswalk, I've included matches based on 6, 4, 2, and 1-digit NAICS. I skipped over 5 and 3-digit NAICS matches simply to speed up creation of the crosswalk, but they could easily be added. We have NAICS codes of two vintages (1997 and 2002) so all matches that use industry codes were carried out twice: ECF 1997 NAICS codes matched to LBD 1997 NAICS codes, and then ECF 2002 NAICS codes matched to LBD 2002 NAICS codes. Most BR establishments were assigned 1997 NAICS codes during the 1997 economic census and many surveys switched to using NAICS at that time, but because the old BR database had run out of space, NAICS codes were not carried on the register until the redesign in 2002. So one additional step in constructing the new bridge was collecting NAICS codes for LBD establishments. For 1997 NAICS codes, I used economic census codes for 1997, and then used the LBD field NAICS for 1998-2004 where available. Where the field NAICS was blank, I used the LBD BESTNAICS field instead. Shawn Klimek and Teresa Fort have been working on putting together 2002 NAICS codes to add to the LBD. I used their working version of these codes as of November 2008 as the source for 2002 NAICS codes for the current LBDB.

2.2.2.2 Match rates

The following gives some match statistics on the two lists of business units that were matched to each other. *The actual tables are confidential and can be accessed in the RDC.* To make the figures roughly comparable over time and across sources, the statistcs are based on the 21 states for which the S2004 snapshot has ECF data for 1997-2004. At least for this particular set of states, the ECF has roughly 15% more establishments than the LBD (except in 2004 when most states have fewer than four quarters of data available in the ECF). The LBD has a higher share of multi-units, but that at least in part reflects that firm identifiers on the ECF are state specific. If a multi-unit operates a single establishment in a state, that establishment is identified here as a single-unit on the ECF but as a multi-unit on the LBD. Note that, for 1997-2001, there are a substantial number of LBD establishments that do not have NAICS codes, which puts an upper bound on the share of establishments that can be matched using industry.

Comparing match rates for payroll-active establishments on the BR based on the original BRB crosswalk for the years of overlap with the LBDB (1997-2001), the overall BRB match rates are higher than those for the LBDB when the same number of digits in the industry code are used. This largely reflects missing

NAICS codes in the LBDB; only 2-3% of the payroll-active establishments on the BR have missing SIC codes. Conditional on having an industry code, the 6-digit NAICS match rates are lower than the BRB 4-digit SIC match rates, but this likely reflects the greater detail provided by NAICS. Comparing rates using the same number of digits in the industry code, the NAICS rates tend to be a bit higher, though it is not clear that is exactly the right comparison either. While the 2002 and 1997 codes appear to give different match rates, this is mostly driven by differences in the number of missing codes. Among cases with non-missing codes, the shares that match for a particular level of industry detail are generally pretty close. The set of payroll-active establishments on the BR is close to, but not exactly the same as the set of establishments on the LBD.

The set of establishments on the ECF have a somewhat lower probability of matching to the LBD than LBD establishments have of matching to the ECF. For most years, the gap averages about 10 percentage points. Differences in coverage of the two business lists appears to be the most likely explanation for differing match rates. For example, if the ECF covers some industries that the LBD generally does not, such as private households, that would lead to a lower match rate for ECF establishments. Employment-weighted rates are consistently higher than the unweighted rates, reflecting higher match rates for larger establishments. This is also the case for matches based on the BRB and for ECF matches to the LBD. The differences between match rates for LBD and ECF establishments are smaller when weighted by employment, suggesting that differences in coverage disproportionately involves small establishments.

Examining LBD match rates by NAICS categories that are slightly more aggregated than 2-digit codes, agriculture has by far the lowest overall match rates among these industry groups. State UI programs vary in the extent to which they cover agricultural workers, so coverage of agriculture in the ECF in general is incomplete. Employment weighted match rates are roughly twice as high as establishment match rates for agriculture, reflecting higher match rates for larger agricultural establishments. The other industry outlier is management of companies, which has very low match rates when industry detail is used in the match, but much more reasonable rates when only geography is used. This may reflect differences in how the LBD and ECF handle industry codes for auxiliary establishments rather than differences in coverage.

Other services (NAICS2=81) is broken up into private households (814) and everything else in other services because coverage of private household appears to differ significantly between the LBD and ECF. Only 1% of ECF business units providing services to private households match to the LBD using the private household industry code (814). The other sector with quite low ECF match rates is public administration. Note that for public administration the match rate in the last column (i.e. not using industry codes) jumps up substantially (to 70%) if we do not require county codes to match. So part of the low match rate here likely reflects that while the Business Register includes some state and local government records, these records are not generally maintained at the establishment level and so detailed geography may differ across the LBD and ECF.

Match rates are a bit higher for establishments belonging to multi-units when county is not included as one of the match criteria. Using county, match rates are quite similar for single-units and multi-units, particularly if match rates are adjusted to reflect more missing industry codes among the single-units. Dropping the requirement that a match be found in the same county has modest effects on single-unit match rates, but a quite large effect on multi-unit match rates. This suggests that there is more disagreement on the location of multi-unit activity between the two lists than there is for single unit activity. Single units have higher match rates only when county is used and industry is not.

A multi-unit might have a single establishment on the LBD with a particular combination of EIN/state/county/6-digit industry code, while having other establishments with the same EIN/state/county and the same first two digits of the industry code, but with different values for the last 4 digits of the industry code. In that case, matching on EIN/state/county/2-digit industry would group all such establishments into the same cell. If each of the LBD establishments had an EIN/state/county/6-digit industry match on the ECF, switching to 2-digit industry would collapse all of these matches into one cell. This might lead us to expect average matched cell size to increase as we use less industry detail in the match criteria. Surprisingly, the average number of establishments in a matched cell is little affected by the amount of industry detail used, and in some cases actually falls with less detail. This happens because the number of establishments matched rises, and most of the additional matches involve cells with a single establishment in them. This largely offsets the increase in aggregation among multi-unit establishments that are matched when more detail is used.

Statistics show very similar levels of aggregation and patterns based on match criteria for the BRB/SIC matches and for ECF matches.

The difference between average numbers of establishments in the EIN/state/county and EIN/state panels shows that dropping geographic detail has a much bigger effect on the amount of aggregation than changing the amount of industry detail. The average number of establishments in a cell generally increases by a modest .1 when county is dropped, but this is a combination of essentially zero effect on single units and a real increase in aggregation for multi-units. Single units by definition have only one establishment, so varying the match criteria affects only whether or not they match. Among matched multi-units, the average number of establishments in a matched cell increases from around 2 to more like 3.5 when county is dropped from the match criteria. The 95th percentile of the cell size distribution for LBD multi-unit matches is roughly 5 establishments for EIN/state/count matches, no matter what level of industry detail is used. For EIN/state matches, the 95th percentile is roughly 10 establishments—again, with little or no pattern associated with the level of industry detail used. Thus for single-units, dropping geographic detail is helpful in finding additional matches while having no effect on aggregation. For multi-units, dropping geographic detail has a sizable effect on the amount of aggregation, while dropping industry detail has little effect.

Differences between the ECF and LBD in industry coverage contribute to differences in match rates among states. For example, low LBD establishment match rates for agriculture help explain why non-urban midwestern states have relatively low establishment match rates. Dropping agricultural establishments increases establishment match rates by 5 or more percentage points for some of those states. Because agricultural establishments are on average quite small, whether or not they are included has almost no effect on employment weighted match rates. The lack of coverage of private household establishments in the LBD helps account for relatively low ECF establishment match rates for a couple of states: if I exclude private household industry codes in doing the calculations it raises ECF SEINUNIT match rates in most states by a percent or two, but raises rates in the most affected states by about 12 percentage points when using 4-digit industry and 17 percentage points when not using industry in the match. For employment-weighted match rates this coverage issue is unimportant because private household SEINUNITs are, unsurprisingly, very small on average.

2.2.2.3 Using the LBD Bridge files

The discussion of how to use the BR Bridge files to link LEHD and Census business data applies to the LBD Bridge as well. The main practical difference for the LBDB is that the ECF and LBD lists have both 2002 and 1997 NAICS codes on them, and the cross-walk file allows the user to use either set of codes to do the linkage. On the two business lists, the NAICS codes appear as separate fields: NAICS02 and NAICS97, where 02 and 97 refer to the vintage of the coding scheme. While the two sets of codes differ substantially for some sectors (e.g. wholesale and construction), for many detailed industries they are unchanged. The crosswalk file was first created with a record for each unique combination of EIN/state/county/NAICS97 and each unique combination of EIN/state/county/NAICS02, with flags for each record indicating whether that combination appeared on the ECF list or the LBD list or both (i.e. had a match). The variable ***naics_vintage*** was set to '1997' if the record was created from NAICS97 and to '2002' if created from NAICS02. Where two records with a particular combination of EIN/state/county had identical NAICS02 and NAICS97 codes, and also had identical values for all 15 match flags, one of the records was dropped and ***naics_vintage*** was reset to 'BOTH' for the record that was kept. This was done simply to reduce the size of the overall file. To use 1997 NAICS codes to link business units on the two lists, the user should start with all records from the crosswalk that have ***naics_vintage*** equal to either '1997' or 'BOTH', because those are the records derived using the 1997 codes. Similarly, to match using 2002 codes, use records with ***naics_vintage*** equal to either '2002' or 'BOTH'.

2.2.2.4 Contents of LBD Bridge (LBDB) files

Table 2.1: **File LBDB_US_LBDLIST**

Name	Type	Length	Label
alpha	2	10	Firm identifier (not BR alpha−−corresponds to firmid on CES files)
cfn	2	10	CFN if yr<2002, SURVUID if yr>=2002 (as on LBD)
county	2	3	County FIPS codes
ein	2	9	
flag_lbd_pyfix	2	1	=F if LBD prior yr fix (1st BR rec in yr+1, but in LBD in curryr b/c prior pay/empl>0 in yr+1)
flagb	2	9	Birth−Death−Continuer Link Flag
lbdnum	2	12	Longitudinal estab identifier (from LBD)
mu	1	8	Single−Multi Identifier
naics02	2	6	2002 NAICS code from Klimek/Fort assignment of codes to estabs on LBD
naics97	2	6	1997 NAICS code from EC (1997), LBD bestnaics (1998−2001), or LBD naics var
naics02_src	2	4	Stands in for Klimek/Fort source code−−see format src_cd for translation to their codes
recnum	1	8	SSEL record number (matches to SSEL file for current year)
state	2	2	State 2 character postal abbrev (lower case)
stgeo	2	2	State FIPS code
year	1	8	Year

Table 2.2: **File LBDB_US_ECFLIST**

Name	**Type**	**Length**	**Label**
best_emp3	1	4	Best UI/202 Employment Month 3
county	2	3	Cleaned ES202 FIPS County CCC
ein	2	9	Cleaned EIN
multi_unit	1	3	SEIN w/2+ records on 202
naics02	2	6	Cleaned 1997 NAICS Code NNNNNN
naics97	2	6	Cleaned 1997 NAICS Code NNNNNN
quarter	1	3	Quarter (numeric)
sein	2	12	State Employer ID Number
seinunit	2	5	State UI Reporting Unit Number
state	2	2	State 2 character postal abbrev (lower case)
stgeo	2	2	ES202 FIPS State SS
year	1	3	Year YYYY

Table 2.3: **File LBDB_US_XWALK**

Name	Type	Length	Label
county	2	3	County FIPS codes
ein	2	9	Cleaned EIN
flag_e	2	1	Match flag EIN level
flag_e_n1	2	1	Match flag EIN/NAICS 1 digit level
flag_e_n2	2	1	Match flag EIN/NAICS 2 digit level
flag_e_n4	2	1	Match flag EIN/NAICS 4 digit level
flag_e_n6	2	1	Match flag EIN/NAICS 6 digit level
flag_e_s	2	1	Match flag EIN/STATE level
flag_e_s_c	2	1	Match flag EIN/STATE/COUNTY level
flag_e_s_c_n1	2	1	Match flag EIN/STATE/COUNTY/NAICS 1 digit level
flag_e_s_c_n2	2	1	Match flag EIN/STATE/COUNTY/NAICS 2 digit level
flag_e_s_c_n4	2	1	Match flag EIN/STATE/COUNTY/NAICS 4 digit level
flag_e_s_c_n6	2	1	Match flag EIN/STATE/COUNTY/NAICS 6 digit level
flag_e_s_n1	2	1	Match flag EIN/STATE/NAICS 1 digit level
flag_e_s_n2	2	1	Match flag EIN/STATE/NAICS 2 digit level
flag_e_s_n4	2	1	Match flag EIN/STATE/NAICS 4 digit level
flag_e_s_n6	2	1	Match flag EIN/STATE/NAICS 6 digit level
naics1	2	1	First 1 digits of naics6
naics2	2	2	First 2 digits of naics6
naics4	2	4	First 4 digits of naics6
naics6	2	6	6 digit NAICS code
naics_vintage	2	4	=2002, 1997, or BOTH
state	2	2	State 2 character postal abbrev (lower case)
year	1	8	Year

2.3 DATA SET DESCRIPTIONS

2.3.1 Naming scheme

There are three files in the BRB group:

```
brb_us_brlist.sas7bdat
brb_us_ecflist.sas7bdat
brb_us_xwalk.sas7bdat
```

`us` indicates that these are files of national scope. All BRB files are considered FTI.

2.3.2 Data location

The files are stored in a directory underneath the general LEHD directory structure:

```
brb/us/
```

On the RDC network, the directory can be found under

```
/mixed/lehd/current
```

2.3.3 Main file: Crosswalk, brb_us_xwalk

Record identifier: year EIN state county sic4 ???

Sort order: year ein state county sic4

File indexes: none

Entity Link record (many-to-many)

Unique Entity Key year EIN state county sic4

Field name	Data dictionary reference name	Starting position	Field size	Data type
Cleaned EIN	EIN	00026	9	A/N
Cleaned ES202 FIPS County CCC	COUNTY	00035	3	A/N
Cleaned SIC Code IIII	SIC4	00020	4	A/N
ES202 FIPS State SS	STGEO	00024	2	A/N
Enterprise identifier	ALPHA	00008	10	A/N
Match flag EIN level	FLAG_E	00058	1	A/N
Match flag EIN/SIC1 level	FLAG_E_1	00057	1	A/N
Match flag EIN/SIC2 level	FLAG_E_2	00056	1	A/N
Match flag EIN/SIC3 level	FLAG_E_3	00055	1	A/N
Match flag EIN/SIC4 level	FLAG_E_4	00054	1	A/N
Match flag EIN/STATE level	FLAG_E_S	00053	1	A/N
Match flag EIN/STATE/COUNTY level	FLAG_E_S_C	00048	1	A/N
Match flag EIN/STATE/COUNTY/SIC1	FLAG_E_S_C_1	00047	1	A/N
Match flag EIN/STATE/COUNTY/SIC2	FLAG_E_S_C_2	00046	1	A/N
Match flag EIN/STATE/COUNTY/SIC3	FLAG_E_S_C_3	00045	1	A/N
Match flag EIN/STATE/COUNTY/SIC4	FLAG_E_S_C_4	00044	1	A/N
Match flag EIN/STATE/SIC1 level	FLAG_E_S_1	00052	1	A/N
Match flag EIN/STATE/SIC2 level	FLAG_E_S_2	00051	1	A/N
Match flag EIN/STATE/SIC3 level	FLAG_E_S_3	00050	1	A/N
Match flag EIN/STATE/SIC4 level	FLAG_E_S_4	00049	1	A/N
One-digit SIC code	SIC1	00043	1	A/N
State FIPS code	STATE	00018	2	A/N
Three-digit SIC Code	SIC3	00038	3	A/N
Two-digit SIC code	SIC2	00041	2	A/N
Year YYYY	YEAR	00000	8	N

2.3.4 Business Register list: brb_us_brlist

Record identifier: year ein state county sic4 cfn

Sort order: year ein state county sic4 cfn

File indexes: none

Entity Establishment (Census File Number)

Unique Entity Key cfn

Field name	Data dictionary reference name	Starting position	Field size	Data type
Census File Number	CFN	00008	10	A/N
Employer Identification Number	EIN	00036	9	A/N
Enterprise identifier	ALPHA	00018	10	A/N
FIPS State SS	STATE	00028	2	A/N
FIPS State xx	STGEO	00034	2	A/N
FIPS county xxx	COUNTY	00055	3	A/N
Four-digit 1987 SIC	SIC4	00030	4	A/N
Permanent Plant Number	PPN	00045	10	A/N
Year YYYY	YEAR	00000	8	N

2.3.5 ECF list: brb_us_ecflist

Record identifier: sein seinunit year quarter

Sort order: year ein state county sic4 sein seinunit quarter

File indexes: none

Entity Reporting unit (State Employment Security Agency (SESA))

Unique Entity Key sein seinunit year quarter

Field name	Data dictionary reference name	Starting position	Field size	Data type
Cleaned EIN	EIN	00026	9	A/N
Cleaned ES202 FIPS County CCC	COUNTY	00023	3	A/N
Cleaned SIC Code IIII	SIC4	00019	4	A/N
ES202 FIPS State SS	STGEO	00017	2	A/N
FIPS State SS	STATE	00035	2	A/N
Quarter QQ	QUARTER	00040	3	N
State Employer ID Number	SEIN	00000	12	A/N
State UI Reporting Unit Number	SEINUNIT	00012	5	A/N
Year YYYY	YEAR	00037	3	N

2.4 DATA DICTIONARY

2.4.1 Crosswalk

Field name	Data dictionary reference name	Starting position	Field size	Data type
Cleaned EIN	EIN	00026	9	A/N

CHARACTERISTICS

UNITS	Identifier
ALGORITHM	read-in
SOURCEFILE	BR and ECF, if available
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Cleaned ES202 FIPS County CCC	COUNTY	00035	3	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	read-in
SOURCEFILE	ECF/BR
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Cleaned SIC Code IIII	SIC4	00020	4	A/N

CHARACTERISTICS

UNITS	Industry
ALGORITHM	read-in
SOURCEFILE	ECF/BR
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
ES202 FIPS State SS	STGEO	00024	2	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Enterprise identifier	ALPHA	00008	10	A/N

CHARACTERISTICS

UNITS	Identifier
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN level	FLAG_E	00058	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/SIC1 level	FLAG_E_1	00057	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/SIC1 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/SIC2 level	FLAG_E_2	00056	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/SIC2 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/SIC3 level	FLAG_E_3	00055	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/SIC3 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/SIC4 level	FLAG_E_4	00054	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/SIC4 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE level	FLAG_E_S	00053	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/COUNTY level	FLAG_E_S_C	00048	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/COUNTY level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/COUNTY/SIC1	FLAG_E_S_C_1	00047	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/COUNTY/SIC1 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/COUNTY/SIC2	FLAG_E_S_C_2	00046	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/COUNTY/SIC2 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/COUNTY/SIC3	FLAG_E_S_C_3	00045	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/COUNTY/SIC3 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/COUNTY/SIC4	FLAG_E_S_C_4	00044	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/COUNTY/SIC4 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/SIC1 level	FLAG_E_S_1	00052	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/SIC1 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/SIC2 level	FLAG_E_S_2	00051	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/SIC2 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/SIC3 level	FLAG_E_S_3	00050	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/SIC3 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
Match flag EIN/STATE/SIC4 level	FLAG_E_S_4	00049	1	A/N

CHARACTERISTICS

UNITS	Flag
ALGORITHM	computed
SOURCEFILE	see 04_brb.sas
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

B: only in BR
L: only in LEHD
M: matched in EIN/STATE/SIC4 level

Field name	Data dictionary reference name	Starting position	Field size	Data type
One-digit SIC code	SIC1	00043	1	A/N

CHARACTERISTICS

UNITS	Industry
ALGORITHM	derived
SOURCEFILE	sic1=substr(sic4,1,1)
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
State FIPS code	STATE	00018	2	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	read-in
SOURCEFILE	ECF
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Three-digit SIC Code	SIC3	00038	3	A/N

CHARACTERISTICS

UNITS	Industry
ALGORITHM	derived
SOURCEFILE	sic3=substr(sic4,1,3)
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Two-digit SIC code	SIC2	00041	2	A/N

CHARACTERISTICS

UNITS	Industry
ALGORITHM	derived
SOURCEFILE	sic2=substr(sic4,1,2)
ALTERNATE DOCUMENTATION	n.a.

VALUE TABLE

.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Year YYYY	YEAR	00000	8	N

CHARACTERISTICS

UNITS	Calendar
ALGORITHM	read-in
SOURCEFILE	ECF and BR
ALTERNATE DOCUMENTATION	n.a.

2.4.2 BR list

Field name	Data dictionary reference name	Starting position	Field size	Data type
Census File Number	CFN	00008	10	A/N

CHARACTERISTICS

UNITS	Identifier
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Employer Identification Number	EIN	00036	9	A/N

CHARACTERISTICS

UNITS	Identifier
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Enterprise identifier	ALPHA	00018	10	A/N

CHARACTERISTICS

UNITS	Identifier
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
FIPS State SS	STATE	00028	2	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	state=lowcase(fipstate(stgeo))
SOURCEFILE	derived
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
FIPS State xx	STGEO	00034	2	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
FIPS county xxx	COUNTY	00055	3	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Four-digit 1987 SIC	SIC4	00030	4	A/N

CHARACTERISTICS

UNITS	Industry
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Permanent Plant Number	PPN	00045	10	A/N

CHARACTERISTICS

UNITS	Identifier
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Year YYYY	YEAR	00000	8	N

CHARACTERISTICS

UNITS	Calendar
ALGORITHM	read-in
SOURCEFILE	BR
ALTERNATE DOCUMENTATION	n.a.

2.4.3 ECF list

Field name	Data dictionary reference name	Starting position	Field size	Data type
Cleaned EIN	EIN	00026	9	A/N

CHARACTERISTICS

UNITS	Identifier
ALGORITHM	read-in
SOURCEFILE	ECF (availability differs across states)
ALTERNATE DOCUMENTATION	ECF documentation

Field name	Data dictionary reference name	Starting position	Field size	Data type
Cleaned ES202 FIPS County CCC	COUNTY	00023	3	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	read-in
SOURCEFILE	ECF
ALTERNATE DOCUMENTATION	ECF documentation

Field name	Data dictionary reference name	Starting position	Field size	Data type
Cleaned SIC Code IIII	SIC4	00019	4	A/N

CHARACTERISTICS

UNITS	Industry
ALGORITHM	read-in
SOURCEFILE	ECF
ALTERNATE DOCUMENTATION	ECF documentation

Field name	Data dictionary reference name	Starting position	Field size	Data type
ES202 FIPS State SS	STGEO	00017	2	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	rename es_state=stgeo
SOURCEFILE	ECF
ALTERNATE DOCUMENTATION	ECF documentation

Field name	Data dictionary reference name	Starting position	Field size	Data type
FIPS State SS	STATE	00035	2	A/N

CHARACTERISTICS

UNITS	Geography
ALGORITHM	state=lowcase(fipstate(stgeo))
SOURCEFILE	derived
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
Quarter QQ	QUARTER	00040	3	N

CHARACTERISTICS

UNITS	Calendar
ALGORITHM	read-in
SOURCEFILE	ECF
ALTERNATE DOCUMENTATION	n.a.

Field name	Data dictionary reference name	Starting position	Field size	Data type
State Employer ID Number	SEIN	00000	12	A/N

CHARACTERISTICS

UNITS	(State-specific) Identifier
ALGORITHM	read-in
SOURCEFILE	ECF
ALTERNATE DOCUMENTATION	ECF documentation

Field name	Data dictionary reference name	Starting position	Field size	Data type
State UI Reporting Unit Number	SEINUNIT	00012	5	A/N

CHARACTERISTICS

UNITS	(State-specific) Identifier
ALGORITHM	read-in
SOURCEFILE	ECF
ALTERNATE DOCUMENTATION	ECF documentation

Field name	Data dictionary reference name	Starting position	Field size	Data type
Year YYYY	YEAR	00037	3	N

CHARACTERISTICS

UNITS	Calendar
ALGORITHM	read-in
SOURCEFILE	ECF
ALTERNATE DOCUMENTATION	ECF documentation

2.4.4 Summary information on datasets

Table 2.50: Number of observations for BRB

Group	Number of datafiles	Records (1000s)	Filesize (GB)
BRB	6	768,000	50

Table 2.51: List of data files for BRB, by state

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
National (us)				
brb_us_brlist	1992Q1	2001Q4	127,900	10
	year ein state county sic4 CFN			
brb_us_ecflist	1992Q1	2001Q4	179,200	10
	year ein state county sic4 sein seinunit quarter			
brb_us_xwalk	1992Q1	2001Q4	143,700	10
	year ein state county sic4			
lbdb_us_ecflist	2001Q1	2004Q1	158,500	10
	year ein state county naics02 naics97 sein seinunit quarter			
lbdb_us_lbdlist	2001Q1	2004Q1	60,300	5
	year ein state county naics02 naics97 cfn			
lbdb_us_xwalk	2001Q1	2004Q1	98,400	5
	year ein state county naics6 naics_vintage			

Number of files for each data set group and state. Aggregate size of all files in GB in parentheses.

2.5 NOTES

Chapter 3.
Employer Characteristics File (ECF)

The ECF documentation will be provided at a later date, as it needs to be updated.

Chapter 4.
Employment History Files (EHF)

4.1 OVERVIEW

The Employment History Files (EHF) are designed to store the complete in-state work history for each individual that appears in the UI wage records. The EHF for each state contains one record for each employee-employer combination–a job–in that state in each year. Both annual and quarterly earnings variables are available in the EHF. Individuals who are employed, but never have strictly positive earnings at their employing SEIN (a theoretical possibility) in a given year do not have a record in the EHF for that year. To facilitate analysis, the EHF data are restructured into another file containing one observation per job (PIK-SEIN combination), with all quarterly earnings and activity information available on that record. The restructured file is called the Person History File (PHF). It should be noted that the actual file structure is at the PIK-SEIN-SEINUNIT-YEAR level for the EHF, and at the PIK-SEIN-SEINUNIT level for the PHF. Although only one state (Minnesota) has non-zero values for SEINUNIT, this allows the file structure to be homogeneous across states. An active job within a quarter, the primary job-level economic activity measure, is defined as having strictly positive quarterly earnings for the individual-employer pair that define the job.

A time-series similar to the aggregated job data, but based on observed activity (positive employment) in the ES-202 records, is available and computed at the SEINUNIT level (Unit History File, UHF) and the SEIN level (SEIN History File, SHF).

4.2 INPUT FILES

4.2.1 Wage records: UI

Wage records correspond to the report of an individual's UI-covered earnings by an employing entity, identified by a state UI account number (called the SEIN in the LEHD system). An individual's UI wage record is retained in the processing if at least one employer reports earnings of at least one dollar for that individual during the quarter. Thus, an in-scope job must produce at least one dollar of UI-covered earnings during a given quarter in the LEHD universe. Maximum earnings reported are defined in a specific state's unemployment insurance system, and observed top-coding varies across states and over time.

A record is completed with information on the individual's Social Security Number (later replaced with the PIK within the LEHD system), first name, last name, and middle initial. A few states include additional information: the firm's reporting unit or establishment (SEINUNIT), available for Minnesota, and a crucial component to the Unit-to-Worker impute described later; weeks worked, available for some years in Florida; hours worked, available for Washington and Minnesota state.

Current UI wage records are reported for the quarter that ended approximately six months prior to the reporting date at Census (the first day of the calendar quarter). Wage records are also reported for the quarter that the state considers "final" in the sense that revisions to its administrative UI wage record data base after that date are relatively rare. This quarter typically ends nine months prior to the reporting date. Historical UI wage records were assembled by the partner states from their administrative record backup systems.

4.2.2 Employer reports: ES-202

The employer reports are based on information from each state's Department of Employment Security. The data are collected as part of the Covered Employment and Wages (CEW) program, also known as the ES-202 program, which is jointly administered by the BLS and the Employment Security Agencies in a federal-state partnership. This cooperative program between the states and the federal government collects employment, payroll, and economic activity, and physical location information from employers covered by state unemployment insurance programs and from employers subject to the reporting requirements of the ES-202 system. The employer and work place reports from this system are the same as the data reported to the BLS as part of the Quarterly Census of Employment and Wages (QCEW), but are referred to in the LEHD system by their old acronym "ES-202." The universe for these data is a 'reporting unit,' which is the QCEW establishment–the place where the employees actually perform their work. Most employers have one establishment ('single-units'), but most employment is with employers who have multiple establishments ('multi-units'). One report per establishment per quarter is filed. These data are also used to compile the QCEW and the Business Employment Dynamics (BED) data at the BLS.

The information contained in the ES-202 reports has increased substantially over the years. Employers report wages subject to statutory payroll taxes on this form, together with some other information. Common to all years, and critical to LEHD processing, are information on the employer's identity (the SEIN), the reporting unit's identify (SEINUNIT), ownership information, employment on the 12th of each month covered by the quarter, and total wages paid over the course of the quarter. Additional information pertains to industry classifications (initially SIC, and later NAICS). Other information include the federal EIN, geography both at a high level (county or MSA) and low level (physical location street address and mailing address). A recent expansion of the standard report's record layout has increased the informational content substantially. The LEHD Infrastructure File system is, fundamentally, a job-based frame designed to be represent the universe of individual-employer pairs covered by state unemployment insurance system reporting requirements. Thus, the underlying data are wage records extracted from Unemployment Insurance (UI) administrative files from each LED partner state. In addition to the UI wage records, LED partner states also deliver an extract of the file reported to the Bureau of Labor Statistic's Quarterly Census of Employment and Wages (QCEW, formerly known as ES-202). These data are received by LEHD on a quarterly basis, with historical time series extending back to the early 1990s for many states.

4.3 DATA SET DESCRIPTIONS

4.3.1 Naming scheme

All files start with `ehf`:

```
ehf_zz_controltotals.sas7bdat
ehf_zz_phf.sas7bdat
ehf_zz.sas7bdat
ehf_zz_sein_employment.sas7bdat
ehf_zz_shf.sas7bdat
ehf_zz_uhf.sas7bdat
ehf_zz_uniqpik.sas7bdat
```

`ZZ` stands for the state postal abbreviation. The main EHF file has no suffix, other files have a suffix. You will find zero-observation SAS datasets attached to this document - see the attachment tab.

4.3.2 Data location

The files are stored in two main directories, with state-specific subdirectories:

```
ehf/ZZ/       for most files
```

No files in the EHF process contain Title 26 data. On the RDC network, the directory can be found under

```
/mixed/lehd/current
```

4.3.3 UI-based Output Files

4.3.3.1 EHF

The EHF is designed to store the complete in-state work history for each individual that appears in the UI wage records. The EHF for each state contains one record for each employee-employer combination in that state in each year. Every individual who is employed during a given year will then have one observation per employer for that year. Annual earnings and quarterly earnings variables are present on the file. The presence of positive quarterly earnings is used in the job flow analysis not only to compute earnings and payroll statistics but also to determine an individual's employment status each quarter.

The EHF (`ehf_&state.`) is organized by PIK-SEIN-SEINUNIT-YEAR. Note that all states except Minnesota (MN) have SEINUNIT='00000', so this reverts back to PIK-SEIN-YEAR for all states except MN.

Record identifier PIK-SEIN-SEINUNIT-YEAR

Sort order PIK-SEIN-SEINUNIT-YEAR

Entity Job

Unique Entity Key PIK-SEIN-SEINUNIT

Field name	Data dictionary reference name	Starting position	Field size	Data type
Annual earnings	EARN_ANN	00003	5	N
Calendar year	YEAR	00000	3	N
Protected Identification Key	PIK	00028	9	A/N
Qtr 1 earnings	EARN1	00008	5	N
Qtr 2 earnings	EARN2	00013	5	N
Qtr 3 earnings	EARN3	00018	5	N
Qtr 4 earnings	EARN4	00023	5	N
Source of data (FIPS state code/0=Fed)	SOURCE	00037	2	A/N
State Employer Identification Number	SEIN	00041	12	A/N
State UI Reporting Unit Number	SEINUNIT	00053	5	A/N
Type of source	SOURCETP	00039	2	A/N

4.3.3.2 (proto-)PHF

The proto PHF is a reformatted version of the EHF. Rather than having one record per year, the PHF is organized by "job", or unique employee-employer combination, identified by PIK-SEIN(-SEINUNIT), with cmplete historical arrays for earnings and employment status. It is not to be confused with the PHF_B of the QWI sequence, which is augmented with information from the U2W process for non-MN states.

The PHF (`ehf_&state._phf`) is organized by PIK-SEIN-SEINUNIT. Note that all states except MN have SEINUNIT='00000', so this reverts back to PIK-SEIN for all states except MN.

Record identifier PIK-SEIN-SEINUNIT

Sort order PIK-SEIN-SEINUNIT

Entity Job

Unique Entity Key PIK-SEIN-SEINUNIT

Field name	Data dictionary reference name	Starting position	Field size	Data type
Binary workhistory ...00111000... 1=employed	WORK	00264	80	A/N
Employment in QTIME=33	E33	00000	5	N
Employment in QTIME=34	E34	00005	5	N
Employment in QTIME=35	E35	00010	5	N
Employment in QTIME=36	E36	00015	5	N
Employment in QTIME=37	E37	00020	5	N
Employment in QTIME=38	E38	00025	5	N
Employment in QTIME=39	E39	00030	5	N
Employment in QTIME=40	E40	00035	5	N
Employment in QTIME=41	E41	00040	5	N
Employment in QTIME=42	E42	00045	5	N
Employment in QTIME=43	E43	00050	5	N
Employment in QTIME=44	E44	00055	5	N
Employment in QTIME=45	E45	00060	5	N
Employment in QTIME=46	E46	00065	5	N
Employment in QTIME=47	E47	00070	5	N
Employment in QTIME=48	E48	00075	5	N
Employment in QTIME=49	E49	00080	5	N
Employment in QTIME=50	E50	00085	5	N
Employment in QTIME=51	E51	00090	5	N
Employment in QTIME=52	E52	00095	5	N
Employment in QTIME=53	E53	00100	5	N
Employment in QTIME=54	E54	00105	5	N
Employment in QTIME=55	E55	00110	5	N
Employment in QTIME=56	E56	00115	5	N
Employment in QTIME=57	E57	00120	5	N
Employment in QTIME=58	E58	00125	5	N
Employment in QTIME=59	E59	00130	5	N
Employment in QTIME=60	E60	00135	5	N
Employment in QTIME=61	E61	00140	5	N
Employment in QTIME=62	E62	00145	5	N
Employment in QTIME=63	E63	00150	5	N
Employment in QTIME=64	E64	00155	5	N
Employment in QTIME=65	E65	00160	5	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Employment in QTIME=66	E66	00165	5	N
Employment in QTIME=67	E67	00170	5	N
Employment in QTIME=68	E68	00175	5	N
Employment in QTIME=69	E69	00180	5	N
Employment in QTIME=70	E70	00185	5	N
Employment in QTIME=71	E71	00190	5	N
Employment in QTIME=72	E72	00195	5	N
Employment in QTIME=73	E73	00200	5	N
Employment in QTIME=74	E74	00205	5	N
Employment in QTIME=75	E75	00210	5	N
Employment in QTIME=76	E76	00215	5	N
Employment in QTIME=77	E77	00220	5	N
Employment in QTIME=78	E78	00225	5	N
Employment in QTIME=79	E79	00230	5	N
Employment in QTIME=80	E80	00235	5	N
Protected Identification Key	PIK	00243	9	A/N
SEINUNIT imputed (never true, compatibility)	FLAG_SEINUNIT_IMPUTED	00240	3	N
State Employer Identification Number	SEIN	00252	12	A/N
State UI Reporting Unit Number	SEINUNIT	00344	5	A/N

4.3.3.3 UNIQPIK file

The UNIQPIK file is an input to the ICF. It also contains some diagnostic information, such as the number of records overall per PIK. It used to be produced by the (legacy) UIPIK sequence (called `ssnall` there).

The UNIQPIK file (`ehf_&state._uniqpik`) is organized by PIK.

Record identifier PIK

Sort order PIK

Entity Person

Unique Entity Key PIK

Field name	Data dictionary reference name	Starting position	Field size	Data type
Illegal SSN Range Flag	SSNFLAG	00000	1	A/N
Protected Identification Key	PIK	00001	9	A/N
cut=substr(pik,1,2)	CUT	00010	9	A/N

4.3.3.4 SEIN_EMPLOYMENT

The SEIN_EMPLOYMENT is a SEIN-level measure of employment based on UI data.

The SEIN_EMPLOYMENT file (`ehf_&state._sein_employment`) is organized by SEIN-YEAR. No SEINUNIT version exists.

Record identifier SEIN-YEAR

Sort order SEIN-YEAR

Entity Firm

Unique Entity Key SEIN

Field name	Data dictionary reference name	Starting position	Field size	Data type
Beginning of quarter employment	B	00016	8	N
Beginning of quarter employment	E	00008	8	N
Flow employment	M	00000	8	N
Quarter	QUARTER	00035	3	N
State Employer Identification Number	SEIN	00038	12	A/N
Total earnings during the quarter	W1	00024	8	N
Year	YEAR	00032	3	N
Year-Quarter YYYY:Q	YR_QTR	00050	6	A/N

4.3.4 ES202-based Output Files

4.3.4.1 UHF

The UHF (Unit History File) used to be produced by the SPF (prior to version 3.1.12). It contains a full history of activity for each SEIN-SEINUNIT (wide file). It is still used as an input to the SPF. It replaces `seinunit_history_es.sas7bdat`.

The UHF file (`ehf_&state._uhf`) is organized by SEIN-SEINUNIT.

Record identifier SEIN-SEINUNIT

Sort order SEIN-SEINUNIT

Entity Establishment

Unique Entity Key SEIN-SEINUNIT

Field name	Data dictionary reference name	Starting position	Field size	Data type
...1... if part of multi-establishment, ...2... if master unit	MU_CODE	02034	80	A/N
=...1... if positive employment in quarter i	ACTIVE_EMPLOY_ES	01954	80	A/N
Ever had positive employment	ACTIVE_EVER_ES	01920	8	N
First QTIME with positive employment	ACTIVE_BEG_QTR_ES	01928	3	N
Last QTIME with positive employment	ACTIVE_END_QTR_ES	01931	3	N
Maximum monthly employment in QTIME=1	EMP_ES1	00640	8	N
Maximum monthly employment in QTIME=10	EMP_ES10	00712	8	N
Maximum monthly employment in QTIME=11	EMP_ES11	00720	8	N
Maximum monthly employment in QTIME=12	EMP_ES12	00728	8	N
Maximum monthly employment in QTIME=13	EMP_ES13	00736	8	N
Maximum monthly employment in QTIME=14	EMP_ES14	00744	8	N
Maximum monthly employment in QTIME=15	EMP_ES15	00752	8	N
Maximum monthly employment in QTIME=16	EMP_ES16	00760	8	N
Maximum monthly employment in QTIME=17	EMP_ES17	00768	8	N
Maximum monthly employment in QTIME=18	EMP_ES18	00776	8	N
Maximum monthly employment in QTIME=19	EMP_ES19	00784	8	N
Maximum monthly employment in QTIME=2	EMP_ES2	00648	8	N
Maximum monthly employment in QTIME=20	EMP_ES20	00792	8	N
Maximum monthly employment in QTIME=21	EMP_ES21	00800	8	N
Maximum monthly employment in QTIME=22	EMP_ES22	00808	8	N
Maximum monthly employment in QTIME=23	EMP_ES23	00816	8	N
Maximum monthly employment in QTIME=24	EMP_ES24	00824	8	N
Maximum monthly employment in QTIME=25	EMP_ES25	00832	8	N
Maximum monthly employment in QTIME=26	EMP_ES26	00840	8	N
Maximum monthly employment in QTIME=27	EMP_ES27	00848	8	N
Maximum monthly employment in QTIME=28	EMP_ES28	00856	8	N
Maximum monthly employment in QTIME=29	EMP_ES29	00864	8	N
Maximum monthly employment in QTIME=3	EMP_ES3	00656	8	N
Maximum monthly employment in QTIME=30	EMP_ES30	00872	8	N
Maximum monthly employment in QTIME=31	EMP_ES31	00880	8	N
Maximum monthly employment in QTIME=32	EMP_ES32	00888	8	N
Maximum monthly employment in QTIME=33	EMP_ES33	00896	8	N
Maximum monthly employment in QTIME=34	EMP_ES34	00904	8	N
Maximum monthly employment in QTIME=35	EMP_ES35	00912	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Maximum monthly employment in QTIME=36	EMP_ES36	00920	8	N
Maximum monthly employment in QTIME=37	EMP_ES37	00928	8	N
Maximum monthly employment in QTIME=38	EMP_ES38	00936	8	N
Maximum monthly employment in QTIME=39	EMP_ES39	00944	8	N
Maximum monthly employment in QTIME=4	EMP_ES4	00664	8	N
Maximum monthly employment in QTIME=40	EMP_ES40	00952	8	N
Maximum monthly employment in QTIME=41	EMP_ES41	00960	8	N
Maximum monthly employment in QTIME=42	EMP_ES42	00968	8	N
Maximum monthly employment in QTIME=43	EMP_ES43	00976	8	N
Maximum monthly employment in QTIME=44	EMP_ES44	00984	8	N
Maximum monthly employment in QTIME=45	EMP_ES45	00992	8	N
Maximum monthly employment in QTIME=46	EMP_ES46	01000	8	N
Maximum monthly employment in QTIME=47	EMP_ES47	01008	8	N
Maximum monthly employment in QTIME=48	EMP_ES48	01016	8	N
Maximum monthly employment in QTIME=49	EMP_ES49	01024	8	N
Maximum monthly employment in QTIME=5	EMP_ES5	00672	8	N
Maximum monthly employment in QTIME=50	EMP_ES50	01032	8	N
Maximum monthly employment in QTIME=51	EMP_ES51	01040	8	N
Maximum monthly employment in QTIME=52	EMP_ES52	01048	8	N
Maximum monthly employment in QTIME=53	EMP_ES53	01056	8	N
Maximum monthly employment in QTIME=54	EMP_ES54	01064	8	N
Maximum monthly employment in QTIME=55	EMP_ES55	01072	8	N
Maximum monthly employment in QTIME=56	EMP_ES56	01080	8	N
Maximum monthly employment in QTIME=57	EMP_ES57	01088	8	N
Maximum monthly employment in QTIME=58	EMP_ES58	01096	8	N
Maximum monthly employment in QTIME=59	EMP_ES59	01104	8	N
Maximum monthly employment in QTIME=6	EMP_ES6	00680	8	N
Maximum monthly employment in QTIME=60	EMP_ES60	01112	8	N
Maximum monthly employment in QTIME=61	EMP_ES61	01120	8	N
Maximum monthly employment in QTIME=62	EMP_ES62	01128	8	N
Maximum monthly employment in QTIME=63	EMP_ES63	01136	8	N
Maximum monthly employment in QTIME=64	EMP_ES64	01144	8	N
Maximum monthly employment in QTIME=65	EMP_ES65	01152	8	N
Maximum monthly employment in QTIME=66	EMP_ES66	01160	8	N
Maximum monthly employment in QTIME=67	EMP_ES67	01168	8	N
Maximum monthly employment in QTIME=68	EMP_ES68	01176	8	N
Maximum monthly employment in QTIME=69	EMP_ES69	01184	8	N
Maximum monthly employment in QTIME=7	EMP_ES7	00688	8	N
Maximum monthly employment in QTIME=70	EMP_ES70	01192	8	N
Maximum monthly employment in QTIME=71	EMP_ES71	01200	8	N
Maximum monthly employment in QTIME=72	EMP_ES72	01208	8	N
Maximum monthly employment in QTIME=73	EMP_ES73	01216	8	N
Maximum monthly employment in QTIME=74	EMP_ES74	01224	8	N
Maximum monthly employment in QTIME=75	EMP_ES75	01232	8	N
Maximum monthly employment in QTIME=76	EMP_ES76	01240	8	N
Maximum monthly employment in QTIME=77	EMP_ES77	01248	8	N
Maximum monthly employment in QTIME=78	EMP_ES78	01256	8	N
Maximum monthly employment in QTIME=79	EMP_ES79	01264	8	N
Maximum monthly employment in QTIME=8	EMP_ES8	00696	8	N
Maximum monthly employment in QTIME=80	EMP_ES80	01272	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Maximum monthly employment in QTIME=9	EMP_ES9	00704	8	N
Month 1 employment in QTIME=1	BPEMP_ES1	00000	8	N
Month 1 employment in QTIME=10	BPEMP_ES10	00072	8	N
Month 1 employment in QTIME=11	BPEMP_ES11	00080	8	N
Month 1 employment in QTIME=12	BPEMP_ES12	00088	8	N
Month 1 employment in QTIME=13	BPEMP_ES13	00096	8	N
Month 1 employment in QTIME=14	BPEMP_ES14	00104	8	N
Month 1 employment in QTIME=15	BPEMP_ES15	00112	8	N
Month 1 employment in QTIME=16	BPEMP_ES16	00120	8	N
Month 1 employment in QTIME=17	BPEMP_ES17	00128	8	N
Month 1 employment in QTIME=18	BPEMP_ES18	00136	8	N
Month 1 employment in QTIME=19	BPEMP_ES19	00144	8	N
Month 1 employment in QTIME=2	BPEMP_ES2	00008	8	N
Month 1 employment in QTIME=20	BPEMP_ES20	00152	8	N
Month 1 employment in QTIME=21	BPEMP_ES21	00160	8	N
Month 1 employment in QTIME=22	BPEMP_ES22	00168	8	N
Month 1 employment in QTIME=23	BPEMP_ES23	00176	8	N
Month 1 employment in QTIME=24	BPEMP_ES24	00184	8	N
Month 1 employment in QTIME=25	BPEMP_ES25	00192	8	N
Month 1 employment in QTIME=26	BPEMP_ES26	00200	8	N
Month 1 employment in QTIME=27	BPEMP_ES27	00208	8	N
Month 1 employment in QTIME=28	BPEMP_ES28	00216	8	N
Month 1 employment in QTIME=29	BPEMP_ES29	00224	8	N
Month 1 employment in QTIME=3	BPEMP_ES3	00016	8	N
Month 1 employment in QTIME=30	BPEMP_ES30	00232	8	N
Month 1 employment in QTIME=31	BPEMP_ES31	00240	8	N
Month 1 employment in QTIME=32	BPEMP_ES32	00248	8	N
Month 1 employment in QTIME=33	BPEMP_ES33	00256	8	N
Month 1 employment in QTIME=34	BPEMP_ES34	00264	8	N
Month 1 employment in QTIME=35	BPEMP_ES35	00272	8	N
Month 1 employment in QTIME=36	BPEMP_ES36	00280	8	N
Month 1 employment in QTIME=37	BPEMP_ES37	00288	8	N
Month 1 employment in QTIME=38	BPEMP_ES38	00296	8	N
Month 1 employment in QTIME=39	BPEMP_ES39	00304	8	N
Month 1 employment in QTIME=4	BPEMP_ES4	00024	8	N
Month 1 employment in QTIME=40	BPEMP_ES40	00312	8	N
Month 1 employment in QTIME=41	BPEMP_ES41	00320	8	N
Month 1 employment in QTIME=42	BPEMP_ES42	00328	8	N
Month 1 employment in QTIME=43	BPEMP_ES43	00336	8	N
Month 1 employment in QTIME=44	BPEMP_ES44	00344	8	N
Month 1 employment in QTIME=45	BPEMP_ES45	00352	8	N
Month 1 employment in QTIME=46	BPEMP_ES46	00360	8	N
Month 1 employment in QTIME=47	BPEMP_ES47	00368	8	N
Month 1 employment in QTIME=48	BPEMP_ES48	00376	8	N
Month 1 employment in QTIME=49	BPEMP_ES49	00384	8	N
Month 1 employment in QTIME=5	BPEMP_ES5	00032	8	N
Month 1 employment in QTIME=50	BPEMP_ES50	00392	8	N
Month 1 employment in QTIME=51	BPEMP_ES51	00400	8	N
Month 1 employment in QTIME=52	BPEMP_ES52	00408	8	N
Month 1 employment in QTIME=53	BPEMP_ES53	00416	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Month 1 employment in QTIME=54	BPEMP_ES54	00424	8	N
Month 1 employment in QTIME=55	BPEMP_ES55	00432	8	N
Month 1 employment in QTIME=56	BPEMP_ES56	00440	8	N
Month 1 employment in QTIME=57	BPEMP_ES57	00448	8	N
Month 1 employment in QTIME=58	BPEMP_ES58	00456	8	N
Month 1 employment in QTIME=59	BPEMP_ES59	00464	8	N
Month 1 employment in QTIME=6	BPEMP_ES6	00040	8	N
Month 1 employment in QTIME=60	BPEMP_ES60	00472	8	N
Month 1 employment in QTIME=61	BPEMP_ES61	00480	8	N
Month 1 employment in QTIME=62	BPEMP_ES62	00488	8	N
Month 1 employment in QTIME=63	BPEMP_ES63	00496	8	N
Month 1 employment in QTIME=64	BPEMP_ES64	00504	8	N
Month 1 employment in QTIME=65	BPEMP_ES65	00512	8	N
Month 1 employment in QTIME=66	BPEMP_ES66	00520	8	N
Month 1 employment in QTIME=67	BPEMP_ES67	00528	8	N
Month 1 employment in QTIME=68	BPEMP_ES68	00536	8	N
Month 1 employment in QTIME=69	BPEMP_ES69	00544	8	N
Month 1 employment in QTIME=7	BPEMP_ES7	00048	8	N
Month 1 employment in QTIME=70	BPEMP_ES70	00552	8	N
Month 1 employment in QTIME=71	BPEMP_ES71	00560	8	N
Month 1 employment in QTIME=72	BPEMP_ES72	00568	8	N
Month 1 employment in QTIME=73	BPEMP_ES73	00576	8	N
Month 1 employment in QTIME=74	BPEMP_ES74	00584	8	N
Month 1 employment in QTIME=75	BPEMP_ES75	00592	8	N
Month 1 employment in QTIME=76	BPEMP_ES76	00600	8	N
Month 1 employment in QTIME=77	BPEMP_ES77	00608	8	N
Month 1 employment in QTIME=78	BPEMP_ES78	00616	8	N
Month 1 employment in QTIME=79	BPEMP_ES79	00624	8	N
Month 1 employment in QTIME=8	BPEMP_ES8	00056	8	N
Month 1 employment in QTIME=80	BPEMP_ES80	00632	8	N
Month 1 employment in QTIME=9	BPEMP_ES9	00064	8	N
Number of establishments in QTIME=1	NUMRUNS1	01280	8	N
Number of establishments in QTIME=10	NUMRUNS10	01352	8	N
Number of establishments in QTIME=11	NUMRUNS11	01360	8	N
Number of establishments in QTIME=12	NUMRUNS12	01368	8	N
Number of establishments in QTIME=13	NUMRUNS13	01376	8	N
Number of establishments in QTIME=14	NUMRUNS14	01384	8	N
Number of establishments in QTIME=15	NUMRUNS15	01392	8	N
Number of establishments in QTIME=16	NUMRUNS16	01400	8	N
Number of establishments in QTIME=17	NUMRUNS17	01408	8	N
Number of establishments in QTIME=18	NUMRUNS18	01416	8	N
Number of establishments in QTIME=19	NUMRUNS19	01424	8	N
Number of establishments in QTIME=2	NUMRUNS2	01288	8	N
Number of establishments in QTIME=20	NUMRUNS20	01432	8	N
Number of establishments in QTIME=21	NUMRUNS21	01440	8	N
Number of establishments in QTIME=22	NUMRUNS22	01448	8	N
Number of establishments in QTIME=23	NUMRUNS23	01456	8	N
Number of establishments in QTIME=24	NUMRUNS24	01464	8	N
Number of establishments in QTIME=25	NUMRUNS25	01472	8	N
Number of establishments in QTIME=26	NUMRUNS26	01480	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Number of establishments in QTIME=27	NUMRUNS27	01488	8	N
Number of establishments in QTIME=28	NUMRUNS28	01496	8	N
Number of establishments in QTIME=29	NUMRUNS29	01504	8	N
Number of establishments in QTIME=3	NUMRUNS3	01296	8	N
Number of establishments in QTIME=30	NUMRUNS30	01512	8	N
Number of establishments in QTIME=31	NUMRUNS31	01520	8	N
Number of establishments in QTIME=32	NUMRUNS32	01528	8	N
Number of establishments in QTIME=33	NUMRUNS33	01536	8	N
Number of establishments in QTIME=34	NUMRUNS34	01544	8	N
Number of establishments in QTIME=35	NUMRUNS35	01552	8	N
Number of establishments in QTIME=36	NUMRUNS36	01560	8	N
Number of establishments in QTIME=37	NUMRUNS37	01568	8	N
Number of establishments in QTIME=38	NUMRUNS38	01576	8	N
Number of establishments in QTIME=39	NUMRUNS39	01584	8	N
Number of establishments in QTIME=4	NUMRUNS4	01304	8	N
Number of establishments in QTIME=40	NUMRUNS40	01592	8	N
Number of establishments in QTIME=41	NUMRUNS41	01600	8	N
Number of establishments in QTIME=42	NUMRUNS42	01608	8	N
Number of establishments in QTIME=43	NUMRUNS43	01616	8	N
Number of establishments in QTIME=44	NUMRUNS44	01624	8	N
Number of establishments in QTIME=45	NUMRUNS45	01632	8	N
Number of establishments in QTIME=46	NUMRUNS46	01640	8	N
Number of establishments in QTIME=47	NUMRUNS47	01648	8	N
Number of establishments in QTIME=48	NUMRUNS48	01656	8	N
Number of establishments in QTIME=49	NUMRUNS49	01664	8	N
Number of establishments in QTIME=5	NUMRUNS5	01312	8	N
Number of establishments in QTIME=50	NUMRUNS50	01672	8	N
Number of establishments in QTIME=51	NUMRUNS51	01680	8	N
Number of establishments in QTIME=52	NUMRUNS52	01688	8	N
Number of establishments in QTIME=53	NUMRUNS53	01696	8	N
Number of establishments in QTIME=54	NUMRUNS54	01704	8	N
Number of establishments in QTIME=55	NUMRUNS55	01712	8	N
Number of establishments in QTIME=56	NUMRUNS56	01720	8	N
Number of establishments in QTIME=57	NUMRUNS57	01728	8	N
Number of establishments in QTIME=58	NUMRUNS58	01736	8	N
Number of establishments in QTIME=59	NUMRUNS59	01744	8	N
Number of establishments in QTIME=6	NUMRUNS6	01320	8	N
Number of establishments in QTIME=60	NUMRUNS60	01752	8	N
Number of establishments in QTIME=61	NUMRUNS61	01760	8	N
Number of establishments in QTIME=62	NUMRUNS62	01768	8	N
Number of establishments in QTIME=63	NUMRUNS63	01776	8	N
Number of establishments in QTIME=64	NUMRUNS64	01784	8	N
Number of establishments in QTIME=65	NUMRUNS65	01792	8	N
Number of establishments in QTIME=66	NUMRUNS66	01800	8	N
Number of establishments in QTIME=67	NUMRUNS67	01808	8	N
Number of establishments in QTIME=68	NUMRUNS68	01816	8	N
Number of establishments in QTIME=69	NUMRUNS69	01824	8	N
Number of establishments in QTIME=7	NUMRUNS7	01328	8	N
Number of establishments in QTIME=70	NUMRUNS70	01832	8	N
Number of establishments in QTIME=71	NUMRUNS71	01840	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Number of establishments in QTIME=72	NUMRUNS72	01848	8	N
Number of establishments in QTIME=73	NUMRUNS73	01856	8	N
Number of establishments in QTIME=74	NUMRUNS74	01864	8	N
Number of establishments in QTIME=75	NUMRUNS75	01872	8	N
Number of establishments in QTIME=76	NUMRUNS76	01880	8	N
Number of establishments in QTIME=77	NUMRUNS77	01888	8	N
Number of establishments in QTIME=78	NUMRUNS78	01896	8	N
Number of establishments in QTIME=79	NUMRUNS79	01904	8	N
Number of establishments in QTIME=8	NUMRUNS8	01336	8	N
Number of establishments in QTIME=80	NUMRUNS80	01912	8	N
Number of establishments in QTIME=9	NUMRUNS9	01344	8	N
Number of quarters with positive employment	ACTIVE_QTRS_ES	01934	3	N
State Employer ID Number	SEIN	01937	12	A/N
State UI Reporting Unit Number	SEINUNIT	01949	5	A/N

4.3.4.2 SHF

The SHF (SEIN History File) used to be produced by the SPF (prior to version 3.1.12) as an internal file only. It contains a full history of activity for each SEIN (wide file). It is still used as an input to the SPF. It replaces `sein_history_es.sas7bdat`.

The SHF file (`ehf_&state._shf`) is organized by SEIN.

Record identifier SEIN

Sort order SEIN

Entity Firm

Unique Entity Key SEIN

Field name	Data dictionary reference name	Starting position	Field size	Data type
in QTIME=1	ESTABS_ES1	01280	8	N
in QTIME=10	ESTABS_ES10	01352	8	N
in QTIME=11	ESTABS_ES11	01360	8	N
in QTIME=12	ESTABS_ES12	01368	8	N
in QTIME=13	ESTABS_ES13	01376	8	N
in QTIME=14	ESTABS_ES14	01384	8	N
in QTIME=15	ESTABS_ES15	01392	8	N
in QTIME=16	ESTABS_ES16	01400	8	N
in QTIME=17	ESTABS_ES17	01408	8	N
in QTIME=18	ESTABS_ES18	01416	8	N
in QTIME=19	ESTABS_ES19	01424	8	N
in QTIME=2	ESTABS_ES2	01288	8	N
in QTIME=20	ESTABS_ES20	01432	8	N
in QTIME=21	ESTABS_ES21	01440	8	N
in QTIME=22	ESTABS_ES22	01448	8	N
in QTIME=23	ESTABS_ES23	01456	8	N
in QTIME=24	ESTABS_ES24	01464	8	N
in QTIME=25	ESTABS_ES25	01472	8	N
in QTIME=26	ESTABS_ES26	01480	8	N
in QTIME=27	ESTABS_ES27	01488	8	N
in QTIME=28	ESTABS_ES28	01496	8	N
in QTIME=29	ESTABS_ES29	01504	8	N
in QTIME=3	ESTABS_ES3	01296	8	N
in QTIME=30	ESTABS_ES30	01512	8	N
in QTIME=31	ESTABS_ES31	01520	8	N
in QTIME=32	ESTABS_ES32	01528	8	N
in QTIME=33	ESTABS_ES33	01536	8	N
in QTIME=34	ESTABS_ES34	01544	8	N
in QTIME=35	ESTABS_ES35	01552	8	N
in QTIME=36	ESTABS_ES36	01560	8	N
in QTIME=37	ESTABS_ES37	01568	8	N
in QTIME=38	ESTABS_ES38	01576	8	N
in QTIME=39	ESTABS_ES39	01584	8	N
in QTIME=4	ESTABS_ES4	01304	8	N
in QTIME=40	ESTABS_ES40	01592	8	N
in QTIME=41	ESTABS_ES41	01600	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
in QTIME=42	ESTABS_ES42	01608	8	N
in QTIME=43	ESTABS_ES43	01616	8	N
in QTIME=44	ESTABS_ES44	01624	8	N
in QTIME=45	ESTABS_ES45	01632	8	N
in QTIME=46	ESTABS_ES46	01640	8	N
in QTIME=47	ESTABS_ES47	01648	8	N
in QTIME=48	ESTABS_ES48	01656	8	N
in QTIME=49	ESTABS_ES49	01664	8	N
in QTIME=5	ESTABS_ES5	01312	8	N
in QTIME=50	ESTABS_ES50	01672	8	N
in QTIME=51	ESTABS_ES51	01680	8	N
in QTIME=52	ESTABS_ES52	01688	8	N
in QTIME=53	ESTABS_ES53	01696	8	N
in QTIME=54	ESTABS_ES54	01704	8	N
in QTIME=55	ESTABS_ES55	01712	8	N
in QTIME=56	ESTABS_ES56	01720	8	N
in QTIME=57	ESTABS_ES57	01728	8	N
in QTIME=58	ESTABS_ES58	01736	8	N
in QTIME=59	ESTABS_ES59	01744	8	N
in QTIME=6	ESTABS_ES6	01320	8	N
in QTIME=60	ESTABS_ES60	01752	8	N
in QTIME=61	ESTABS_ES61	01760	8	N
in QTIME=62	ESTABS_ES62	01768	8	N
in QTIME=63	ESTABS_ES63	01776	8	N
in QTIME=64	ESTABS_ES64	01784	8	N
in QTIME=65	ESTABS_ES65	01792	8	N
in QTIME=66	ESTABS_ES66	01800	8	N
in QTIME=67	ESTABS_ES67	01808	8	N
in QTIME=68	ESTABS_ES68	01816	8	N
in QTIME=69	ESTABS_ES69	01824	8	N
in QTIME=7	ESTABS_ES7	01328	8	N
in QTIME=70	ESTABS_ES70	01832	8	N
in QTIME=71	ESTABS_ES71	01840	8	N
in QTIME=72	ESTABS_ES72	01848	8	N
in QTIME=73	ESTABS_ES73	01856	8	N
in QTIME=74	ESTABS_ES74	01864	8	N
in QTIME=75	ESTABS_ES75	01872	8	N
in QTIME=76	ESTABS_ES76	01880	8	N
in QTIME=77	ESTABS_ES77	01888	8	N
in QTIME=78	ESTABS_ES78	01896	8	N
in QTIME=79	ESTABS_ES79	01904	8	N
in QTIME=8	ESTABS_ES8	01336	8	N
in QTIME=80	ESTABS_ES80	01912	8	N
in QTIME=9	ESTABS_ES9	01344	8	N
=...1... if positive employment in quarter i	ACTIVE_EMPLOY_ES	01957	80	A/N
Ever had positive employment	ACTIVE_EVER_ES	01920	8	N
First QTIME with positive employment	ACTIVE_BEG_QTR_ES	01936	3	N
Last QTIME with positive employment	ACTIVE_END_QTR_ES	01939	3	N
Maximum monthly employment in QTIME=1	EMP_ES1	00640	8	N
Maximum monthly employment in QTIME=10	EMP_ES10	00712	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Maximum monthly employment in QTIME=11	EMP_ES11	00720	8	N
Maximum monthly employment in QTIME=12	EMP_ES12	00728	8	N
Maximum monthly employment in QTIME=13	EMP_ES13	00736	8	N
Maximum monthly employment in QTIME=14	EMP_ES14	00744	8	N
Maximum monthly employment in QTIME=15	EMP_ES15	00752	8	N
Maximum monthly employment in QTIME=16	EMP_ES16	00760	8	N
Maximum monthly employment in QTIME=17	EMP_ES17	00768	8	N
Maximum monthly employment in QTIME=18	EMP_ES18	00776	8	N
Maximum monthly employment in QTIME=19	EMP_ES19	00784	8	N
Maximum monthly employment in QTIME=2	EMP_ES2	00648	8	N
Maximum monthly employment in QTIME=20	EMP_ES20	00792	8	N
Maximum monthly employment in QTIME=21	EMP_ES21	00800	8	N
Maximum monthly employment in QTIME=22	EMP_ES22	00808	8	N
Maximum monthly employment in QTIME=23	EMP_ES23	00816	8	N
Maximum monthly employment in QTIME=24	EMP_ES24	00824	8	N
Maximum monthly employment in QTIME=25	EMP_ES25	00832	8	N
Maximum monthly employment in QTIME=26	EMP_ES26	00840	8	N
Maximum monthly employment in QTIME=27	EMP_ES27	00848	8	N
Maximum monthly employment in QTIME=28	EMP_ES28	00856	8	N
Maximum monthly employment in QTIME=29	EMP_ES29	00864	8	N
Maximum monthly employment in QTIME=3	EMP_ES3	00656	8	N
Maximum monthly employment in QTIME=30	EMP_ES30	00872	8	N
Maximum monthly employment in QTIME=31	EMP_ES31	00880	8	N
Maximum monthly employment in QTIME=32	EMP_ES32	00888	8	N
Maximum monthly employment in QTIME=33	EMP_ES33	00896	8	N
Maximum monthly employment in QTIME=34	EMP_ES34	00904	8	N
Maximum monthly employment in QTIME=35	EMP_ES35	00912	8	N
Maximum monthly employment in QTIME=36	EMP_ES36	00920	8	N
Maximum monthly employment in QTIME=37	EMP_ES37	00928	8	N
Maximum monthly employment in QTIME=38	EMP_ES38	00936	8	N
Maximum monthly employment in QTIME=39	EMP_ES39	00944	8	N
Maximum monthly employment in QTIME=4	EMP_ES4	00664	8	N
Maximum monthly employment in QTIME=40	EMP_ES40	00952	8	N
Maximum monthly employment in QTIME=41	EMP_ES41	00960	8	N
Maximum monthly employment in QTIME=42	EMP_ES42	00968	8	N
Maximum monthly employment in QTIME=43	EMP_ES43	00976	8	N
Maximum monthly employment in QTIME=44	EMP_ES44	00984	8	N
Maximum monthly employment in QTIME=45	EMP_ES45	00992	8	N
Maximum monthly employment in QTIME=46	EMP_ES46	01000	8	N
Maximum monthly employment in QTIME=47	EMP_ES47	01008	8	N
Maximum monthly employment in QTIME=48	EMP_ES48	01016	8	N
Maximum monthly employment in QTIME=49	EMP_ES49	01024	8	N
Maximum monthly employment in QTIME=5	EMP_ES5	00672	8	N
Maximum monthly employment in QTIME=50	EMP_ES50	01032	8	N
Maximum monthly employment in QTIME=51	EMP_ES51	01040	8	N
Maximum monthly employment in QTIME=52	EMP_ES52	01048	8	N
Maximum monthly employment in QTIME=53	EMP_ES53	01056	8	N
Maximum monthly employment in QTIME=54	EMP_ES54	01064	8	N
Maximum monthly employment in QTIME=55	EMP_ES55	01072	8	N
Maximum monthly employment in QTIME=56	EMP_ES56	01080	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Maximum monthly employment in QTIME=57	EMP_ES57	01088	8	N
Maximum monthly employment in QTIME=58	EMP_ES58	01096	8	N
Maximum monthly employment in QTIME=59	EMP_ES59	01104	8	N
Maximum monthly employment in QTIME=6	EMP_ES6	00680	8	N
Maximum monthly employment in QTIME=60	EMP_ES60	01112	8	N
Maximum monthly employment in QTIME=61	EMP_ES61	01120	8	N
Maximum monthly employment in QTIME=62	EMP_ES62	01128	8	N
Maximum monthly employment in QTIME=63	EMP_ES63	01136	8	N
Maximum monthly employment in QTIME=64	EMP_ES64	01144	8	N
Maximum monthly employment in QTIME=65	EMP_ES65	01152	8	N
Maximum monthly employment in QTIME=66	EMP_ES66	01160	8	N
Maximum monthly employment in QTIME=67	EMP_ES67	01168	8	N
Maximum monthly employment in QTIME=68	EMP_ES68	01176	8	N
Maximum monthly employment in QTIME=69	EMP_ES69	01184	8	N
Maximum monthly employment in QTIME=7	EMP_ES7	00688	8	N
Maximum monthly employment in QTIME=70	EMP_ES70	01192	8	N
Maximum monthly employment in QTIME=71	EMP_ES71	01200	8	N
Maximum monthly employment in QTIME=72	EMP_ES72	01208	8	N
Maximum monthly employment in QTIME=73	EMP_ES73	01216	8	N
Maximum monthly employment in QTIME=74	EMP_ES74	01224	8	N
Maximum monthly employment in QTIME=75	EMP_ES75	01232	8	N
Maximum monthly employment in QTIME=76	EMP_ES76	01240	8	N
Maximum monthly employment in QTIME=77	EMP_ES77	01248	8	N
Maximum monthly employment in QTIME=78	EMP_ES78	01256	8	N
Maximum monthly employment in QTIME=79	EMP_ES79	01264	8	N
Maximum monthly employment in QTIME=8	EMP_ES8	00696	8	N
Maximum monthly employment in QTIME=80	EMP_ES80	01272	8	N
Maximum monthly employment in QTIME=9	EMP_ES9	00704	8	N
Month 1 employment in QTIME=1	BPEMP_ES1	00000	8	N
Month 1 employment in QTIME=10	BPEMP_ES10	00072	8	N
Month 1 employment in QTIME=11	BPEMP_ES11	00080	8	N
Month 1 employment in QTIME=12	BPEMP_ES12	00088	8	N
Month 1 employment in QTIME=13	BPEMP_ES13	00096	8	N
Month 1 employment in QTIME=14	BPEMP_ES14	00104	8	N
Month 1 employment in QTIME=15	BPEMP_ES15	00112	8	N
Month 1 employment in QTIME=16	BPEMP_ES16	00120	8	N
Month 1 employment in QTIME=17	BPEMP_ES17	00128	8	N
Month 1 employment in QTIME=18	BPEMP_ES18	00136	8	N
Month 1 employment in QTIME=19	BPEMP_ES19	00144	8	N
Month 1 employment in QTIME=2	BPEMP_ES2	00008	8	N
Month 1 employment in QTIME=20	BPEMP_ES20	00152	8	N
Month 1 employment in QTIME=21	BPEMP_ES21	00160	8	N
Month 1 employment in QTIME=22	BPEMP_ES22	00168	8	N
Month 1 employment in QTIME=23	BPEMP_ES23	00176	8	N
Month 1 employment in QTIME=24	BPEMP_ES24	00184	8	N
Month 1 employment in QTIME=25	BPEMP_ES25	00192	8	N
Month 1 employment in QTIME=26	BPEMP_ES26	00200	8	N
Month 1 employment in QTIME=27	BPEMP_ES27	00208	8	N
Month 1 employment in QTIME=28	BPEMP_ES28	00216	8	N
Month 1 employment in QTIME=29	BPEMP_ES29	00224	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Month 1 employment in QTIME=3	BPEMP_ES3	00016	8	N
Month 1 employment in QTIME=30	BPEMP_ES30	00232	8	N
Month 1 employment in QTIME=31	BPEMP_ES31	00240	8	N
Month 1 employment in QTIME=32	BPEMP_ES32	00248	8	N
Month 1 employment in QTIME=33	BPEMP_ES33	00256	8	N
Month 1 employment in QTIME=34	BPEMP_ES34	00264	8	N
Month 1 employment in QTIME=35	BPEMP_ES35	00272	8	N
Month 1 employment in QTIME=36	BPEMP_ES36	00280	8	N
Month 1 employment in QTIME=37	BPEMP_ES37	00288	8	N
Month 1 employment in QTIME=38	BPEMP_ES38	00296	8	N
Month 1 employment in QTIME=39	BPEMP_ES39	00304	8	N
Month 1 employment in QTIME=4	BPEMP_ES4	00024	8	N
Month 1 employment in QTIME=40	BPEMP_ES40	00312	8	N
Month 1 employment in QTIME=41	BPEMP_ES41	00320	8	N
Month 1 employment in QTIME=42	BPEMP_ES42	00328	8	N
Month 1 employment in QTIME=43	BPEMP_ES43	00336	8	N
Month 1 employment in QTIME=44	BPEMP_ES44	00344	8	N
Month 1 employment in QTIME=45	BPEMP_ES45	00352	8	N
Month 1 employment in QTIME=46	BPEMP_ES46	00360	8	N
Month 1 employment in QTIME=47	BPEMP_ES47	00368	8	N
Month 1 employment in QTIME=48	BPEMP_ES48	00376	8	N
Month 1 employment in QTIME=49	BPEMP_ES49	00384	8	N
Month 1 employment in QTIME=5	BPEMP_ES5	00032	8	N
Month 1 employment in QTIME=50	BPEMP_ES50	00392	8	N
Month 1 employment in QTIME=51	BPEMP_ES51	00400	8	N
Month 1 employment in QTIME=52	BPEMP_ES52	00408	8	N
Month 1 employment in QTIME=53	BPEMP_ES53	00416	8	N
Month 1 employment in QTIME=54	BPEMP_ES54	00424	8	N
Month 1 employment in QTIME=55	BPEMP_ES55	00432	8	N
Month 1 employment in QTIME=56	BPEMP_ES56	00440	8	N
Month 1 employment in QTIME=57	BPEMP_ES57	00448	8	N
Month 1 employment in QTIME=58	BPEMP_ES58	00456	8	N
Month 1 employment in QTIME=59	BPEMP_ES59	00464	8	N
Month 1 employment in QTIME=6	BPEMP_ES6	00040	8	N
Month 1 employment in QTIME=60	BPEMP_ES60	00472	8	N
Month 1 employment in QTIME=61	BPEMP_ES61	00480	8	N
Month 1 employment in QTIME=62	BPEMP_ES62	00488	8	N
Month 1 employment in QTIME=63	BPEMP_ES63	00496	8	N
Month 1 employment in QTIME=64	BPEMP_ES64	00504	8	N
Month 1 employment in QTIME=65	BPEMP_ES65	00512	8	N
Month 1 employment in QTIME=66	BPEMP_ES66	00520	8	N
Month 1 employment in QTIME=67	BPEMP_ES67	00528	8	N
Month 1 employment in QTIME=68	BPEMP_ES68	00536	8	N
Month 1 employment in QTIME=69	BPEMP_ES69	00544	8	N
Month 1 employment in QTIME=7	BPEMP_ES7	00048	8	N
Month 1 employment in QTIME=70	BPEMP_ES70	00552	8	N
Month 1 employment in QTIME=71	BPEMP_ES71	00560	8	N
Month 1 employment in QTIME=72	BPEMP_ES72	00568	8	N
Month 1 employment in QTIME=73	BPEMP_ES73	00576	8	N
Month 1 employment in QTIME=74	BPEMP_ES74	00584	8	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Month 1 employment in QTIME=75	BPEMP_ES75	00592	8	N
Month 1 employment in QTIME=76	BPEMP_ES76	00600	8	N
Month 1 employment in QTIME=77	BPEMP_ES77	00608	8	N
Month 1 employment in QTIME=78	BPEMP_ES78	00616	8	N
Month 1 employment in QTIME=79	BPEMP_ES79	00624	8	N
Month 1 employment in QTIME=8	BPEMP_ES8	00056	8	N
Month 1 employment in QTIME=80	BPEMP_ES80	00632	8	N
Month 1 employment in QTIME=9	BPEMP_ES9	00064	8	N
Number of quarters with positive employment	ACTIVE_QTRS_ES	01942	3	N
SEIN was ever had multiple units	EVER_MU	01928	8	N
State Employer ID Number	SEIN	01945	12	A/N

4.3.5 Summary information on datasets

Table 4.7: Number of observations for EHF

Group	Number of datafiles	Records (1000s)	Filesize (GB)
EHF	329	5,209,400	860

Table 4.8: List of data files for EHF, by state

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
Alaska (ak)				
ehf_ak	1990Q1	2008Q4	9,600	< 5
	pik sein seinunit year			
ehf_ak_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ak_phf	1990Q1	2008Q4	4,400	< 5
	pik sein seinunit			
ehf_ak_sein_employment	1990Q1	2008Q4	1,100	< 5
	sein year			
ehf_ak_shf	2000Q1	2008Q4	< 100	< 5
	sein			
ehf_ak_uhf	2000Q1	2008Q4	< 100	< 5
	sein seinunit			
ehf_ak_uniqpik	1990Q1	2008Q4	1,200	< 5
	pik			
Alabama (al)				
ehf_al	2001Q1	2008Q4	25,600	< 5
	pik sein seinunit year			
ehf_al_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_al_phf	2001Q1	2008Q4	12,300	< 5
	pik sein seinunit			
ehf_al_sein_employment	2001Q1	2008Q4	2,600	< 5
	sein year			
ehf_al_shf	2001Q1	2008Q4	200	< 5
	sein			
ehf_al_uhf	2001Q1	2008Q4	300	< 5
	sein seinunit			
ehf_al_uniqpik	2001Q1	2008Q4	4,000	< 5
	pik			
Arkansas (ar)				
ehf_ar	2002Q3	2008Q4	13,700	< 5
	pik sein seinunit year			
ehf_ar_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ar_phf	2002Q3	2008Q4	6,600	< 5
	pik sein seinunit			
ehf_ar_sein_employment	2002Q3	2008Q4	1,500	< 5

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
	sein year			
ehf_ar_shf	2002Q3	2008Q4	100	< 5
	sein			
ehf_ar_uhf	2002Q3	2008Q4	100	< 5
	sein seinunit			
ehf_ar_uniqpik	2002Q3	2008Q4	2,500	< 5
	pik			
Arizona (az)				
ehf_az	1992Q1	2008Q4	68,700	< 5
	pik sein seinunit year			
ehf_az_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_az_phf	1992Q1	2008Q4	32,800	15
	pik sein seinunit			
ehf_az_sein_employment	1992Q1	2008Q4	6,400	< 5
	sein year			
ehf_az_shf	2004Q1	2008Q4	200	< 5
	sein			
ehf_az_uhf	2004Q1	2008Q4	200	< 5
	sein seinunit			
ehf_az_uniqpik	1992Q1	2008Q4	7,600	< 5
	pik			
California (ca)				
ehf_ca	1991Q3	2008Q4	441,800	25
	pik sein seinunit year			
ehf_ca_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ca_phf	1991Q3	2008Q4	188,900	85
	pik sein seinunit			
ehf_ca_sein_employment	1991Q3	2008Q4	56,500	< 5
	sein year			
ehf_ca_shf	1991Q1	2008Q4	3,000	5
	sein			
ehf_ca_uhf	1991Q1	2008Q4	3,400	10
	sein seinunit			
ehf_ca_uniqpik	1991Q3	2008Q4	41,700	< 5
	pik			
Colorado (co)				
ehf_co	1990Q1	2008Q4	69,000	< 5
	pik sein seinunit year			
ehf_co_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_co_phf	1990Q1	2008Q4	32,900	15
	pik sein seinunit			
ehf_co_sein_employment	1990Q1	2008Q4	8,000	< 5
	sein year			
ehf_co_shf	1990Q1	2008Q4	500	< 5
	sein			

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
ehf_co_uhf	1990Q1	2008Q4	600	< 5
	sein seinunit			
ehf_co_uniqpik	1990Q1	2008Q4	8,000	< 5
	pik			
Delaware (de)				
ehf_de	1998Q3	2008Q4	7,300	< 5
	pik sein seinunit year			
ehf_de_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_de_phf	1998Q3	2008Q4	3,200	< 5
	pik sein seinunit			
ehf_de_sein_employment	1998Q3	2008Q4	900	< 5
	sein year			
ehf_de_shf	1997Q1	2008Q4	< 100	< 5
	sein			
ehf_de_uhf	1997Q1	2008Q4	< 100	< 5
	sein seinunit			
ehf_de_uniqpik	1998Q3	2008Q4	1,100	< 5
	pik			
Florida (fl)				
ehf_fl	1992Q4	2008Q4	208,800	10
	pik sein seinunit year			
ehf_fl_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_fl_phf	1992Q4	2008Q4	99,200	40
	pik sein seinunit			
ehf_fl_sein_employment	1992Q4	2008Q4	22,100	< 5
	sein year			
ehf_fl_shf	1989Q1	2008Q4	1,500	< 5
	sein			
ehf_fl_uhf	1989Q1	2008Q4	1,900	< 5
	sein seinunit			
ehf_fl_uniqpik	1992Q4	2008Q4	22,800	< 5
	PIK			
Georgia (ga)				
ehf_ga	1994Q1	2008Q4	99,400	5
	pik sein seinunit year			
ehf_ga_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ga_phf	1994Q1	2008Q4	45,700	20
	pik sein seinunit			
ehf_ga_sein_employment	1994Q1	2008Q4	9,900	< 5
	sein year			
ehf_ga_shf	1998Q1	2008Q4	500	< 5
	sein			
ehf_ga_uhf	1998Q1	2008Q4	600	< 5
	sein seinunit			
ehf_ga_uniqpik	1994Q1	2008Q4	11,500	< 5

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
	pik			
Hawaii (hi)				
ehf_hi	1995Q4	2008Q4	10,500	< 5
	pik sein seinunit year			
ehf_hi_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_hi_phf	1995Q4	2008Q4	4,100	< 5
	pik sein seinunit			
ehf_hi_sein_employment	1995Q4	2008Q4	1,400	< 5
	sein year			
ehf_hi_shf	1995Q4	2008Q4	< 100	< 5
	sein			
ehf_hi_uhf	1995Q4	2008Q4	< 100	< 5
	sein seinunit			
ehf_hi_uniqpik	1995Q4	2008Q4	1,400	< 5
	pik			
Iowa (ia)				
ehf_ia	1998Q4	2008Q4	25,400	< 5
	pik sein seinunit year			
ehf_ia_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ia_phf	1998Q4	2008Q4	10,200	< 5
	pik sein seinunit			
ehf_ia_sein_employment	1998Q4	2008Q4	2,700	< 5
	sein year			
ehf_ia_shf	1990Q1	2008Q4	200	< 5
	sein			
ehf_ia_uhf	1990Q1	2008Q4	300	< 5
	sein seinunit			
ehf_ia_uniqpik	1998Q4	2008Q4	3,200	< 5
	pik			
Idaho (id)				
ehf_id	1990Q1	2008Q4	18,800	< 5
	pik sein seinunit year			
ehf_id_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_id_phf	1990Q1	2008Q4	8,600	< 5
	pik sein seinunit			
ehf_id_sein_employment	1990Q1	2008Q4	2,500	< 5
	sein year			
ehf_id_shf	1991Q1	2008Q4	100	< 5
	sein			
ehf_id_uhf	1991Q1	2008Q4	200	< 5
	sein seinunit			
ehf_id_uniqpik	1990Q1	2008Q4	2,200	< 5
	pik			
Illinois (il)				
ehf_il	1990Q1	2008Q4	177,900	10

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
	pik sein seinunit year			
ehf_il_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_il_phf	1990Q1	2008Q4	70,800	35
	pik sein seinunit			
ehf_il_sein_employment	1990Q1	2008Q4	18,300	< 5
	sein year			
ehf_il_shf	1990Q1	2008Q4	900	< 5
	sein			
ehf_il_uhf	1990Q1	2008Q4	1,000	< 5
	sein seinunit			
ehf_il_uniqpik	1990Q1	2008Q4	16,200	< 5
	PIK			
Indiana (in)				
ehf_in	1990Q1	2008Q4	91,700	< 5
	pik sein seinunit year			
ehf_in_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_in_phf	1990Q1	2008Q4	39,200	20
	pik sein seinunit			
ehf_in_sein_employment	1990Q1	2008Q4	8,300	< 5
	sein year			
ehf_in_shf	1998Q1	2008Q4	300	< 5
	sein			
ehf_in_uhf	1998Q1	2008Q4	400	< 5
	sein seinunit			
ehf_in_uniqpik	1990Q1	2008Q4	8,000	< 5
	pik			
Kansas (ks)				
ehf_ks	1990Q1	2008Q4	41,100	< 5
	pik sein seinunit year			
ehf_ks_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ks_phf	1990Q1	2008Q4	17,800	10
	pik sein seinunit			
ehf_ks_sein_employment	1990Q1	2008Q4	4,700	< 5
	sein year			
ehf_ks_shf	1990Q1	2008Q4	200	< 5
	sein			
ehf_ks_uhf	1990Q1	2008Q4	300	< 5
	sein seinunit			
ehf_ks_uniqpik	1990Q1	2008Q4	4,600	< 5
	pik			
Kentucky (ky)				
ehf_ky	1996Q4	2008Q4	37,900	< 5
	pik sein seinunit year			
ehf_ky_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
ehf_ky_phf	1996Q4	2008Q4	16,600	5
	pik sein seinunit			
ehf_ky_sein_employment	1996Q4	2008Q4	3,600	< 5
	sein year			
ehf_ky_shf	2001Q1	2008Q4	200	< 5
	sein			
ehf_ky_uhf	2001Q1	2008Q4	200	< 5
	sein seinunit			
ehf_ky_uniqpik	1996Q4	2008Q4	4,600	< 5
	pik			
Louisiana (la)				
ehf_la	1990Q1	2008Q4	58,600	< 5
	pik sein seinunit year			
ehf_la_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_la_phf	1990Q1	2008Q4	26,000	10
	pik sein seinunit			
ehf_la_sein_employment	1990Q1	2008Q4	6,000	< 5
	sein year			
ehf_la_shf	1990Q1	2008Q4	300	< 5
	sein			
ehf_la_uhf	1990Q1	2008Q4	400	< 5
	sein seinunit			
ehf_la_uniqpik	1990Q1	2008Q4	5,800	< 5
	pik			
Maryland (md)				
ehf_md	1985Q2	2008Q4	88,000	< 5
	pik sein seinunit year			
ehf_md_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_md_phf	1985Q2	2008Q4	37,200	20
	pik sein seinunit			
ehf_md_sein_employment	1985Q2	2008Q4	9,700	< 5
	sein year			
ehf_md_shf	1990Q1	2008Q4	400	< 5
	sein			
ehf_md_uhf	1990Q1	2008Q4	500	< 5
	sein seinunit			
ehf_md_uniqpik	1985Q2	2008Q4	8,600	< 5
	PIK			
Maine (me)				
ehf_me	1996Q1	2008Q4	12,800	< 5
	pik sein seinunit year			
ehf_me_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_me_phf	1996Q1	2008Q4	5,200	< 5
	pik sein seinunit			
ehf_me_sein_employment	1996Q1	2008Q4	1,800	< 5

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
	sein year			
ehf_me_shf	1996Q1	2008Q4	100	< 5
	sein			
ehf_me_uhf	1996Q1	2008Q4	100	< 5
	sein seinunit			
ehf_me_uniqpik	1996Q1	2008Q4	1,500	< 5
	pik			
Michigan (mi)				
ehf_mi	1998Q1	2008Q4	78,100	< 5
	pik sein seinunit year			
ehf_mi_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_mi_phf	1998Q1	2008Q4	32,200	10
	pik sein seinunit			
ehf_mi_sein_employment	1998Q1	2008Q4	7,700	< 5
	sein year			
ehf_mi_shf	1998Q1	2008Q4	500	< 5
	sein			
ehf_mi_uhf	1998Q1	2008Q4	600	< 5
	sein seinunit			
ehf_mi_uniqpik	1998Q1	2008Q4	8,800	< 5
	pik			
Minnesota (mn)				
ehf_mn	1994Q3	2008Q4	63,100	< 5
	pik sein seinunit year			
ehf_mn_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_mn_phf	1994Q3	2008Q4	26,100	10
	pik sein seinunit			
ehf_mn_sein_employment	1994Q3	2008Q4	6,300	< 5
	sein year			
ehf_mn_shf	1994Q3	2008Q4	300	< 5
	sein			
ehf_mn_uhf	1994Q3	2008Q4	400	< 5
	sein seinunit			
ehf_mn_uniqpik	1994Q3	2008Q4	5,800	< 5
	pik			
Missouri (mo)				
ehf_mo	1990Q1	2008Q4	83,900	< 5
	pik sein seinunit year			
ehf_mo_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_mo_phf	1990Q1	2008Q4	35,900	15
	pik sein seinunit			
ehf_mo_sein_employment	1990Q1	2008Q4	9,000	< 5
	sein year			
ehf_mo_shf	1990Q1	2008Q4	500	< 5
	sein			

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
ehf_mo_uhf	1990Q1	2008Q4	600	< 5
	sein seinunit			
ehf_mo_uniqpik	1990Q1	2008Q4	8,000	< 5
	pik			
Mississippi (ms)				
ehf_ms	2003Q3	2008Q4	11,000	< 5
	pik sein seinunit year			
ehf_ms_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ms_phf	2003Q3	2008Q4	5,300	< 5
	pik sein seinunit			
ehf_ms_sein_employment	2003Q3	2008Q4	1,100	< 5
	sein year			
ehf_ms_shf	2003Q3	2008Q4	< 100	< 5
	sein			
ehf_ms_uhf	2003Q3	2008Q4	100	< 5
	sein seinunit			
ehf_ms_uniqpik	2003Q3	2008Q4	2,300	< 5
	pik			
Montana (mt)				
ehf_mt	1993Q1	2008Q4	11,100	< 5
	pik sein seinunit year			
ehf_mt_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_mt_phf	1993Q1	2008Q4	4,900	< 5
	pik sein seinunit			
ehf_mt_sein_employment	1993Q1	2008Q4	1,800	< 5
	sein year			
ehf_mt_shf	1993Q1	2008Q4	< 100	< 5
	sein			
ehf_mt_uhf	1993Q1	2008Q4	100	< 5
	sein seinunit			
ehf_mt_uniqpik	1993Q1	2008Q4	1,300	< 5
	pik			
North Carolina (nc)				
ehf_nc	1991Q1	2008Q1	116,100	5
	pik sein seinunit year			
ehf_nc_controltotals	1990Q1	2008Q1	< 100	< 5
ehf_nc_phf	1991Q1	2008Q1	52,300	25
	pik sein seinunit			
ehf_nc_sein_employment	1991Q1	2008Q1	10,800	< 5
	sein year			
ehf_nc_shf	1990Q1	2008Q1	600	< 5
	sein			
ehf_nc_uhf	1990Q1	2008Q1	700	< 5
	sein seinunit			
ehf_nc_uniqpik	1991Q1	2008Q1	11,600	< 5
	pik			

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
North Dakota (nd)				
ehf_nd	1998Q1	2008Q4	6,000	< 5
	pik sein seinunit year			
ehf_nd_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_nd_phf	1998Q1	2008Q4	2,500	< 5
	pik sein seinunit			
ehf_nd_sein_employment	1998Q1	2008Q4	800	< 5
	sein year			
ehf_nd_shf	1998Q1	2008Q4	< 100	< 5
	sein			
ehf_nd_uhf	1998Q1	2008Q4	< 100	< 5
	sein seinunit			
ehf_nd_uniqpik	1998Q1	2008Q4	800	< 5
	pik			
Nebraska (ne)				
ehf_ne	1999Q1	2008Q4	14,800	< 5
	pik sein seinunit year			
ehf_ne_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ne_phf	1999Q1	2008Q4	6,400	< 5
	pik sein seinunit			
ehf_ne_sein_employment	1999Q1	2008Q4	1,700	< 5
	sein year			
ehf_ne_shf	1999Q1	2008Q4	< 100	< 5
	sein			
ehf_ne_uhf	1999Q1	2008Q4	100	< 5
	sein seinunit			
ehf_ne_uniqpik	1999Q1	2008Q4	2,000	< 5
	pik			
New Jersey (nj)				
ehf_nj	1996Q1	2008Q4	79,200	< 5
	pik sein seinunit year			
ehf_nj_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_nj_phf	1996Q1	2008Q4	32,100	10
	pik sein seinunit			
ehf_nj_sein_employment	1996Q1	2008Q4	9,600	< 5
	sein year			
ehf_nj_shf	1995Q1	2008Q4	600	< 5
	sein			
ehf_nj_uhf	1995Q1	2008Q4	700	< 5
	sein seinunit			
ehf_nj_uniqpik	1996Q1	2008Q4	10,000	< 5
	pik			
New Mexico (nm)				
ehf_nm	1995Q3	2008Q4	18,600	< 5
	pik sein seinunit year			

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
ehf_nm_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_nm_phf	1995Q3	2008Q4	8,700	< 5
	pik sein seinunit			
ehf_nm_sein_employment	1995Q3	2008Q4	2,000	< 5
	sein year			
ehf_nm_shf	1990Q1	2008Q4	100	< 5
	sein			
ehf_nm_uhf	1990Q1	2008Q4	200	< 5
	sein seinunit			
ehf_nm_uniqpik	1995Q3	2008Q4	2,400	< 5
	pik			
Nevada (nv)				
ehf_nv	1998Q1	2008Q4	23,700	< 5
	pik sein seinunit year			
ehf_nv_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_nv_phf	1998Q1	2008Q4	11,900	< 5
	pik sein seinunit			
ehf_nv_sein_employment	1998Q1	2008Q4	2,000	< 5
	sein year			
ehf_nv_shf	1998Q1	2008Q4	100	< 5
	sein			
ehf_nv_uhf	1998Q1	2008Q4	200	< 5
	sein seinunit			
ehf_nv_uniqpik	1998Q1	2008Q4	3,500	< 5
	pik			
New York (ny)				
ehf_ny	1995Q1	2008Q4	197,100	10
	pik sein seinunit year			
ehf_ny_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ny_phf	1995Q1	2008Q4	79,700	30
	pik sein seinunit			
ehf_ny_sein_employment	1995Q1	2008Q4	23,300	< 5
	sein year			
ehf_ny_shf	1990Q1	2008Q4	1,500	< 5
	sein			
ehf_ny_uhf	1990Q1	2008Q4	1,700	< 5
	sein seinunit			
ehf_ny_uniqpik	1995Q1	2008Q4	21,900	< 5
	pik			
Ohio (oh)				
ehf_oh	2000Q1	2008Q4	79,400	< 5
	pik sein seinunit year			
ehf_oh_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_oh_phf	2000Q1	2008Q4	34,700	10

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
	pik sein seinunit			
ehf_oh_sein_employment	2000Q1	2008Q4	7,400	< 5
	sein year			
ehf_oh_shf	2000Q1	2008Q4	400	< 5
	sein			
ehf_oh_uhf	2000Q1	2008Q4	600	< 5
	sein seinunit			
ehf_oh_uniqpik	2000Q1	2008Q4	10,000	< 5
	pik			
Oklahoma (ok)				
ehf_ok	2000Q1	2008Q4	23,100	< 5
	pik sein seinunit year			
ehf_ok_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ok_phf	2000Q1	2008Q4	11,300	< 5
	pik sein seinunit			
ehf_ok_sein_employment	2000Q1	2008Q4	2,500	< 5
	sein year			
ehf_ok_shf	1999Q1	2008Q4	200	< 5
	sein			
ehf_ok_uhf	1999Q1	2008Q4	200	< 5
	sein seinunit			
ehf_ok_uniqpik	2000Q1	2008Q4	3,300	< 5
	pik			
Oregon (or)				
ehf_or	1991Q1	2008Q4	49,100	< 5
	pik sein seinunit year			
ehf_or_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_or_phf	1991Q1	2008Q4	21,300	10
	pik sein seinunit			
ehf_or_sein_employment	1991Q1	2008Q4	6,300	< 5
	sein year			
ehf_or_shf	1990Q1	2008Q4	300	< 5
	sein			
ehf_or_uhf	1990Q1	2008Q4	400	< 5
	sein seinunit			
ehf_or_uniqpik	1991Q1	2008Q4	5,300	< 5
	pik			
Pennsylvania (pa)				
ehf_pa	1991Q1	2008Q4	155,700	10
	pik sein seinunit year			
ehf_pa_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_pa_phf	1991Q1	2008Q4	60,400	25
	pik sein seinunit			
ehf_pa_sein_employment	1991Q1	2008Q4	16,800	< 5
	sein year			

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
ehf_pa_shf	1991Q1	2008Q4	800	< 5
	sein			
ehf_pa_uhf	1991Q1	2008Q4	900	< 5
	sein seinunit			
ehf_pa_uniqpik	1991Q1	2008Q4	14,000	< 5
	pik			
Rhode Island (ri)				
ehf_ri	1995Q1	2008Q4	10,700	< 5
	pik sein seinunit year			
ehf_ri_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ri_phf	1995Q1	2008Q4	4,300	< 5
	pik sein seinunit			
ehf_ri_sein_employment	1995Q1	2008Q4	1,500	< 5
	sein year			
ehf_ri_shf	1990Q1	2008Q4	100	< 5
	sein			
ehf_ri_uhf	1990Q1	2008Q4	100	< 5
	sein seinunit			
ehf_ri_uniqpik	1995Q1	2008Q4	1,400	< 5
	pik			
South Carolina (sc)				
ehf_sc	1998Q1	2008Q4	34,900	< 5
	pik sein seinunit year			
ehf_sc_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_sc_phf	1998Q1	2008Q4	16,200	5
	pik sein seinunit			
ehf_sc_sein_employment	1998Q1	2008Q4	3,700	< 5
	sein year			
ehf_sc_shf	1998Q1	2008Q4	200	< 5
	sein			
ehf_sc_uhf	1998Q1	2008Q4	300	< 5
	sein seinunit			
ehf_sc_uniqpik	1998Q1	2008Q4	4,900	< 5
	pik			
South Dakota (sd)				
ehf_sd	1994Q1	2008Q4	9,300	< 5
	pik sein seinunit year			
ehf_sd_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_sd_phf	1994Q1	2008Q4	3,900	< 5
	pik sein seinunit			
ehf_sd_sein_employment	1994Q1	2008Q4	1,300	< 5
	sein year			
ehf_sd_shf	1998Q1	2008Q4	< 100	< 5
	sein			
ehf_sd_uhf	1998Q1	2008Q4	< 100	< 5

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
	sein seinunit			
ehf_sd_uniqpik	1994Q1	2008Q4	1,100	< 5
	pik			
Tennessee (tn)				
ehf_tn	1998Q1	2008Q4	51,300	< 5
	pik sein seinunit year			
ehf_tn_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_tn_phf	1998Q1	2008Q4	24,400	10
	pik sein seinunit			
ehf_tn_sein_employment	1998Q1	2008Q4	4,600	< 5
	sein year			
ehf_tn_shf	1998Q1	2008Q4	300	< 5
	sein			
ehf_tn_uhf	1998Q1	2008Q4	400	< 5
	sein seinunit			
ehf_tn_uniqpik	1998Q1	2008Q4	6,700	< 5
	pik			
Texas (tx)				
ehf_tx	1995Q1	2008Q4	230,900	15
	pik sein seinunit year			
ehf_tx_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_tx_phf	1995Q1	2008Q4	108,300	40
	pik sein seinunit			
ehf_tx_sein_employment	1995Q1	2008Q4	21,000	< 5
	sein year			
ehf_tx_shf	1990Q1	2008Q4	1,300	< 5
	sein			
ehf_tx_uhf	1990Q1	2008Q4	1,700	< 5
	sein seinunit			
ehf_tx_uniqpik	1995Q1	2008Q4	24,100	< 5
	pik			
Utah (ut)				
ehf_ut	1999Q1	2008Q4	19,700	< 5
	pik sein seinunit year			
ehf_ut_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_ut_phf	1999Q1	2008Q4	9,500	< 5
	pik sein seinunit			
ehf_ut_sein_employment	1999Q1	2008Q4	2,100	< 5
	sein year			
ehf_ut_shf	1990Q1	2008Q4	200	< 5
	sein			
ehf_ut_uhf	1990Q1	2008Q4	300	< 5
	sein seinunit			
ehf_ut_uniqpik	1999Q1	2008Q4	2,700	< 5
	pik			

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
Virginia (va)				
ehf_va	1998Q1	2008Q4	62,200	< 5
	pik sein seinunit year			
ehf_va_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_va_phf	1998Q1	2008Q4	27,200	10
	pik sein seinunit			
ehf_va_sein_employment	1998Q1	2008Q4	6,500	< 5
	sein year			
ehf_va_shf	1995Q3	2008Q4	400	< 5
	sein			
ehf_va_uhf	1995Q3	2008Q4	500	< 5
	sein seinunit			
ehf_va_uniqpik	1998Q1	2008Q4	8,700	< 5
	pik			
Vermont (vt)				
ehf_vt	2000Q1	2008Q4	4,600	< 5
	pik sein seinunit year			
ehf_vt_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_vt_phf	2000Q1	2008Q4	1,900	< 5
	pik sein seinunit			
ehf_vt_sein_employment	2000Q1	2008Q4	700	< 5
	sein year			
ehf_vt_shf	2000Q1	2008Q4	< 100	< 5
	sein			
ehf_vt_uhf	2000Q1	2008Q4	< 100	< 5
	sein seinunit			
ehf_vt_uniqpik	2000Q1	2008Q4	700	< 5
	pik			
Washington (wa)				
ehf_wa	1990Q1	2008Q4	87,000	< 5
	pik sein seinunit year			
ehf_wa_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_wa_phf	1990Q1	2008Q4	38,700	20
	pik sein seinunit			
ehf_wa_sein_employment	1990Q1	2008Q4	11,400	< 5
	sein year			
ehf_wa_shf	1990Q1	2008Q4	700	< 5
	sein			
ehf_wa_uhf	1990Q1	2008Q4	800	< 5
	sein seinunit			
ehf_wa_uniqpik	1990Q1	2008Q4	9,100	< 5
	pik			
Wisconsin (wi)				
ehf_wi	1990Q1	2008Q4	80,300	< 5
	pik sein seinunit year			

(cont)

Table 4.8 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
ehf_wi_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_wi_phf	1990Q1	2008Q4	30,200	15
	pik sein seinunit			
ehf_wi_sein_employment	1990Q1	2008Q4	8,500	< 5
	sein year			
ehf_wi_shf	1990Q1	2008Q4	400	< 5
	sein			
ehf_wi_uhf	1990Q1	2008Q4	400	< 5
	sein seinunit			
ehf_wi_uniqpik	1990Q1	2008Q4	6,400	< 5
	pik			
West Virginia (wv)				
ehf_wv	1997Q1	2008Q4	13,700	< 5
	pik sein seinunit year			
ehf_wv_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_wv_phf	1997Q1	2008Q4	5,800	< 5
	pik sein seinunit			
ehf_wv_sein_employment	1997Q1	2008Q4	1,700	< 5
	sein year			
ehf_wv_shf	1990Q1	2008Q4	< 100	< 5
	sein			
ehf_wv_uhf	1990Q1	2008Q4	100	< 5
	sein seinunit			
ehf_wv_uniqpik	1997Q1	2008Q4	1,800	< 5
	pik			
Wyoming (wy)				
ehf_wy	1992Q1	2008Q4	7,600	< 5
	pik sein seinunit year			
ehf_wy_controltotals	1990Q1	2008Q4	< 100	< 5
	year quarter bls_emp_month1 bls_total_wage			
ehf_wy_phf	1992Q1	2008Q4	3,700	< 5
	pik sein seinunit			
ehf_wy_sein_employment	1992Q1	2008Q4	1,100	< 5
	sein year			
ehf_wy_shf	2001Q1	2008Q4	< 100	< 5
	sein			
ehf_wy_uhf	2001Q1	2008Q4	< 100	< 5
	sein seinunit			
ehf_wy_uniqpik	1992Q1	2008Q4	1,200	< 5
	pik			

Number of files for each data set group and state. Aggregate size of all files in GB in parentheses.

4.4 NOTES

Table 4.9: UI/EHF Summary of Information and Known Issues with Data Coverage and Quality

State	Known Data Quality Issues (UI/EHF)	Recommendation to Researchers
CA	None	
CO	60-70% hole in UI data in 1993:3. 20% unresolved identifier mismatch on UI in [90:1-90:3]	Researchers should generally avoid use of pre-1994 EHF data in CO.
FL	(1) There appear to be changes being made in the firm identifiers on the ES202 and UI data in the mid-to-late 1990s. Specifically it looks as though some changes are made on the identifiers in the ES202 in 1996 and in 1997 the UI data is corrected in kind. In the ES202 data, 14% of firms die in 1995:4 and are born in 1996:1, indicating a shift in some firm identifiers. A similar change in magnitude occurs in the UI data between 1997:1 and 1997:4. Between these years, the rate of match between the UI and ES202 SEINs is somewhat poor (10% of UI SEINs do not appear on the ES202 between 1996:1 and 1997:3), although it is quite good both before and after. (2) The match between the ES202 and UI data is not good in 2002:4-2003:3, with 13-20% of UI SEINs not appearing in the ES-202 data.	While not a big enough problem to recommend avoiding use of these date ranges in FL, be aware that changes in firm identifiers in the mid-1990s will bias worker flow measures during this period.
IA	None	
ID	1990 UI data has firm identifier problems on approximately 40% of the records. Because of these problems, this year is not included in the EHF.	Researchers should generally avoid use of 1990 ID EHF data, which should not be too much of an issue as ES202 information is missing for this year in ID.
IL	Small hole in UI data in 1990:1 (10% missing). 1992:1 and 1993:1 are also missing UI wage records.	Note to researchers: These problems bias worker flows in those quarters, also full quarter employment in early years of IL data.
IN	None	
KS	Large holes in KS UI data at 1990:1 (¿50% missing) and 1992:4 (25% missing)	Researchers should generally avoid use of 1990 and 1992 KS EHF data; this problem will also bias full quarter employment and flows in 1993.
KY	UI identifier problem in 2000:3-2001:2 likely, due to 10%, 15% death rates in 2000:3, 2000:4, followed by 11%, 14% birth rates in 2001:1 and 2001:2. (Normal is 3-7% births/deaths in a particular quarter)	Note to researchers: These problems bias worker flows in those quarters, also full quarter employment during 2000-2001 KY data.
MD	None	
ME	None	
MN	None	
MO	1994:4 UI data is small (approximately 70% sample).	Researchers should generally avoid use of 1994 MO EHF data; this problem will also bias some full quarter employment and flows measures in 1995.
MT		

(cont)

Table 4.9 – Continued

State	Known Data Quality Issues (UI/EHF)	Recommendation to Researchers
NC	* ES202 show persistently lower employment than UI, by about 14%, except for 1991:1-1992:3 (around 0%) and 2002:1-2002:4 (5-8%). Warnings are generated when it goes above 15%. * Payroll is typically 6-8% higher on ES202 compared to UI except for 1991:1-1992:3, where it is 20-30% higher. There are also significant, but not as large deviations in 2002:1-2003:1. * Based on the BLS PU records, the ES202 data series looks fine: ES202 sums rarely go above 1% (Test 13-1 and 13-2) Conclusion: we are still missing wage records in the early periods, and some in later periods as well. The most recent wage records actually look coherent with the longest time series, but 2002 is a small problem.	Note to Researchers: Similar to problems in early years of IL, these issues bias worker flows in those quarters, also full quarter employment.
NJ	Small holes in NJ UI data at 1998:3 (5%) and 1999:1 (8-10%) and 2003:1 (10%)	Note to Researchers: Problem probably small enough to ignore for most research purposes.
NM	None	
OK	None	
OR	1994:1 is small, but not terribly so.	Note to Researchers: Problem probably small enough to ignore for most research purposes.
PA	UI wage records are 1% sample for 1996:4	Note to Researchers: Generally avoid use of 1996 PA annual earnings (particularly earnings changes between 1995-1996, 1996-1997, which will be biased), this problem will also bias some flows and full quarter employment measures in 1996 and 1997.
TX	None	
VA	1998:1 is small, and 1998:2 also looks on the small side.	Note to Researchers: Problems probably small enough to ignore for most research purposes.
WA	None	
WI	None	
WV	None	

Chapter 5.
Geo-coded Address List (GAL)

5.1 OVERVIEW

5.1.1 Definition of GAL

The Geocoded Address List (GAL) is a data set containing unique commercial and residential addresses in a state geocoded to the Census Block and latitude/longitude coordinates. It consists of the address list (GAL) and a crosswalk for each processed file-year. The GAL contains each unique address, identified by a GAL identifier called `galid`, its geocodes, a flag for each file-year in which it appears, data quality indicators, and data processing information, including the release date of the Geographic Reference File (GRF). The GAL Crosswalk contains the ID of each input entity and the ID of its address (`galid`).

Input Data The input data consists of addresses, geocodes, and coordinates. Currently, the source files providing addresses consist of the following (future work will add the Non-employer file):

ACS-POW	American Community Survey Place of Work (2001 and later)
AHS	American Housing Survey (2002)
ES202	Employment Security form 202 (all available years 1990 and later)
SSEL	Business Register (Standard Statistical Establishment List 1990 and later)
MAF	Master Address File (the year following the year of the desired geographic vintage)

Geocodes The source files providing geocodes and coordinates are the following:

GCP	the databases of Group1's Geographic Coding Plus software
MAF	Master Address File
GRF-C	Geographic Reference File, Codes (encompassed in the BMF)
WIB-C	Workforce Investment Board, Codes (encompassed in the BMF)
BMF	Block Map File

5.1.2 Update frequency

The internal use GAL is produced quarterly. The RDC version is produced occassionally, at the same time as the other LEHD-provided RDC files.

5.1.3 Acquisition process

In the S2004 Infrastructure Files, the most recent available GAL at the time of transfer was used, and was not synchronized to the rest of the Infrastructure Files. This lead to several discrepancies (records not matching to the rest of the Infrastructure Files). From S2008 onwards, GAL had been integrated into the LEHD data production process, and is synchronized with the other data inputs.

5.1.4 Processing description

All internal processing variables (parsed addresses in particular) are available on the RDC. All crosswalks to input files (for instance, the BR) are available as well. Note that a researcher needs to request the input files separately, and not all input files may be available in the RDC environment.

The Census-internal GAL is considered commingled data, *i.e.*, it contains information protected both under Title 13 and Title 26. Because projects requesting Title 26 data are handled differently from projects requesting only Title 13 information, the GAL is split. Before transferring the GAL to the RDC environment, all variables that refer to Title 26 data are split off, and stored in a separate file (`gal_ZZ_t26flags.sas7bdat`, Section 5.3.5). Furthermore, all records sourced exclusively from Title 26 data are removed from the main GAL dataset, and stored separately (`gal_ZZ_t26.sas7bdat`, Section 5.3.4). Section 5.4.1 describes the program used to split the data from the internal-use commingled file. Section 5.4.2 provides a sample program to join all three components together again.

5.2 DETAILS

The following document was prepared by Marc Roemer, U.S. Census Bureau. It provides a general overview of how the original GAL files are created. Note that the Census Bureau continually improves the processing, and the current GAL processing may differ in some details.

The Geocoded Address List (GAL) is a data set containing unique commercial and residential addresses in a state geocoded to the Census Block and latitude/longitude coordinates. The file encompasses addresses from the state ES202 data, the Business Register, the Census Bureau's Master Address File (MAF), the American Community Survey Place of Work file (ACS-POW), and others. Addresses from these source files go through Code1, Vality standardizer, Vality matching for unduplication, and several other steps in SAS. This document refers to one year's data from a source file as a file-year (for example, the 1995 ES202).

The job stream follows the steps below using the indicated software.

- Step 1: Create input (SAS).
- Step 2: Standardize and geocode addresses (Code1).
- Step 3: Parse and standardize address elements (Vality Standardize).
- Step 4: Match addresses, flag masters and duplicates (Vality Unduplicate).
- Step 5: Create preliminary crosswalk and unique address list with address identifier (SAS).
- Step 6: Set file-year flags, create GAL Crosswalks containing the input identifier and address identifier (SAS).
- Step 7: Retrieve and derive block codes and coordinates from the MAF (SAS).
- Step 8: Impute block within known tract (SAS).
- Step 9: Create GAL by adding higher-level geocodes by block (SAS).
- Step 10: Delete intermediate data files and create links.

The final output consists of the address list and a crosswalk for each processed file-year. The GAL contains each address, its geocodes, a flag for each file-year in which it appears, data quality indicators, and data processing information. The GAL Crosswalk contains the ID of each input entity and the ID of its address. The following section describes the GAL's content.

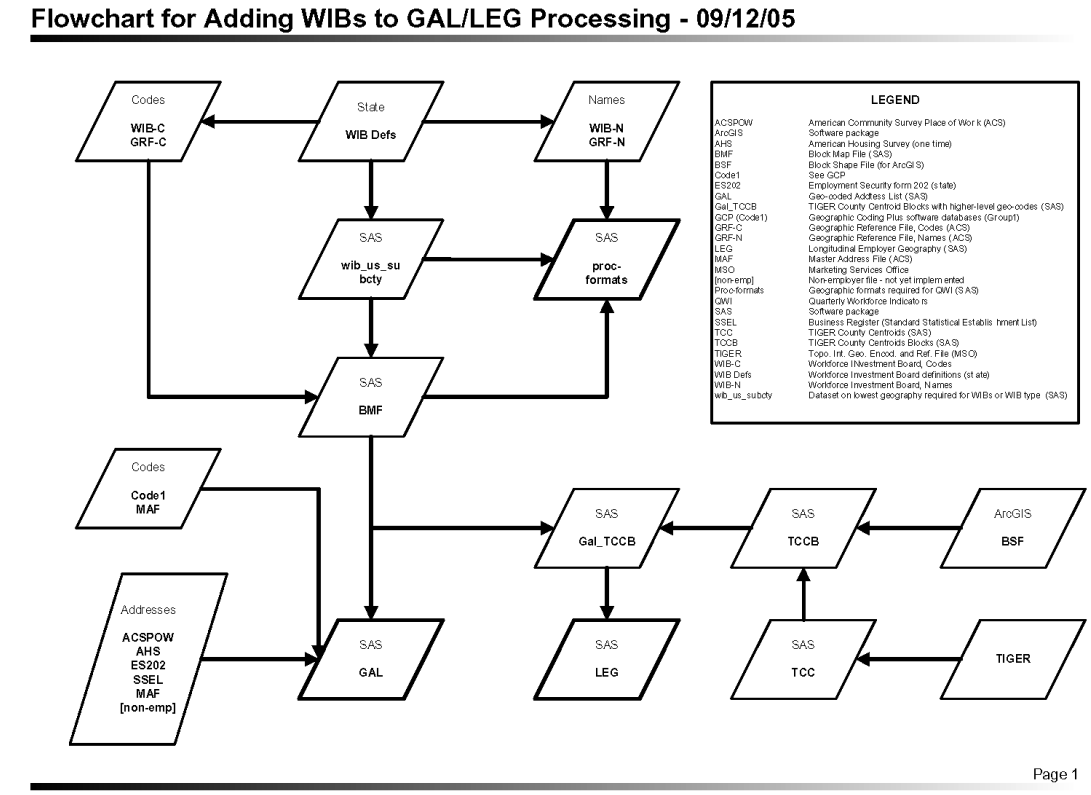
5.2.1 Important Variables

Unique identifier The variable `galid` is the unique address identifier on the GAL, a 26-character string consisting of the letter 'A' in the first column followed by the 2-character state FIPS code and a zero-padded sequential number. The `galid` is created each time a GAL is created. There's no consistency in the `galid` between versions or vintages of the GAL.

Geographic vintage The release date (year) of the GRF identifies the geographic vintage. In the GAL the vintage becomes the variable `a_vintage`.

Geographic codes The variable `a_geocode` is $FIPS-state(2) \| FIPS-county(3) \| Census-tract(6)$, and it uniquely identifies the Census tract in the U.S. The tract is the lowest level of geography recommended for analysis. The Census block within the tract is `a_block`. The uncertainties in block-coding make block-level analysis questionable. However, geocoding to the block allows us to add all the higher-level geocodes to the addresses. The variable `a_block_src` generated in Steps 7 and 8 describes the source of the block-code.

Figure 5.1: GAL Processing



Source: Longitudinal Employer-Household Dynamics (LEHD) Program, Census Bureau

Value	Typical Percent	Meaning
C	12.20	Code1, or the address matches an address for which Code1 supplied the block code
M	81.86	The MAF - the address is a MAF address or matches a MAF address
E	0.00	The MAF, the street address is exactly the same as a MAF address in the same tract
W	0.03	The MAF, the street address is between 2 MAF addresses on the same block face
O	1.23	Imputed by the distribution of commercial addresses in the tract
S	1.17	Imputed by the distribution of residential addresses in the tract
I	0.01	Imputed by the distribution of mixed-use addresses in the tract
D	0.00	Imputed by the distribution of all addresses in the tract
missing	3.50	Block code is missing

In all states observed so far except California, no address required the 'D' method. That is, almost every tract where an address lacks a block code contains commercial, residential, and mixed-use addresses.

The Census Bureau splits blocks to accommodate changes in political boundaries. Most commonly, these are place boundaries (a place is a city, village, or similar municipality). The resulting block parts are identified by 2 suffixes, each taking a value from A to Z. The GAL assigns the block part directly from the MAF, or by adopting the one whose internal point is closest to the address by the straight-line distance. The variables `a_block_suf1` and `a_block_suf2` identify the block part, and `a_block_suf_src` generated in Step 9 describes the method used to assign it.

Value	Typical Percent	Meaning
A	1.50	Assigned by distance
M	4.18	The MAF - the address is a MAF address or matches a MAF address
missing	94.32	Not a split block

The GAL also provides the following basic geographic variables:

a_ssccc	FIPS-state(2)‖FIPS-county (3)
a_st	FIPS state (2)
a_cty	FIPS county within the state (3)
a_tract	Census tract within the county (6)

Higher-level geographic codes originate from the Block Map File (BMF) and attach to the GAL in Step 9. The BMF is an extract of the GRF-C (Geographic Reference File - Codes). All these geocodes are character variables. FIPS (Federal Information Processing Standard) codes are unique within the U.S.; Census codes are not.

a_fipsmcd	5-digit FIPS Minor Civil Division (a division of a county)
a_mcd	3-digit Census Minor Civil Division (a division of a county)
a_fipspl	5-digit FIPS Place
a_place	4-digit Census Place
a_msapmsa	Metropolitan-Statistical-Area(4)‖Primary-Metropolitan-Statistical-Area(4)
a_wib	6-digit Workforce Investment Board area

Geographic coordinates The coordinates of each address are in the variables `a_latitude` and `a_longitude`. These variables are numeric with 6 implied decimals (divide by 1,000,000 to convert them). The coordinates are not as accurate as 6 decimal places implies. An indication of their quality is in the variable `a_geoqual`, a numeric variable taking values from 1 to 9 and generated in Steps 7, 8, and 9:

Value	Typical Percent	Meaning
1	80.15	Rooftop or MAF (most accurate)
2	1.59	ZIP4 or block face, block face is certain
3	10.12	Block group is certain
4	4.65	Tract is certain
9	3.50	Coordinates are missing

The format 'agqual' provided by 'format_geo.sas' in '/programs/projects/auxiliary/Formats' contains the meanings of the `a_geoqual` values listed above.

Two other variables give information about the coordinates. The flag `a_latlong_src` indicates their source:

Value	Typical Percent	Meaning
B	14.77	Block (or block part) internal point
C	70.04	Code1
D	0.03	Derived
M	11.66	the MAF
missing	3.50	Coordinates are missing

Few addresses have `a_latlong_src` equal to 'D'. Deriving coordinates occurs only if they're still missing after Code1 processing and direct extraction from the MAF, but the tract is known. In this case, the flag `a_latlong_drv` generated in Step 7 describes the derivation method:

Value	Typical Percent	Meaning
F	0.00	Adopted from the only address on the block face
P	0.04	Extrapolated between 2 addresses on the block face
missing	99.96	Derivation not performed

In GAL Version 1, deriving coordinates and block codes by these methods was an important means of block-coding. It rarely operates now, since Code1 began providing block codes. Nevertheless, GAL Version 3 still exhausts all methods of assigning block-codes and coordinates before resorting to imputation.

File-year flags A set of flags generated in Step 6 indicates what file-years an address appears in. The names of the flags conform to the naming convention `[f][yyyy]` for the source file `[f]` and year `[yyyy]`, where `[f]` takes the following values:

Business Register	f = b
ES202	f = e
Master Address File	f = m
American Community Survey - Place of Work	f = p
American Housing Survey	f = h

For example, the flag variable `b1997` equals 1 if the address is on the 1997 Business Register; otherwise it equals 0. Note that if a [LEHD] state partner supplies 1991 ES202 data with no address information, `e1991` will be 0 for all addresses. Typically, the `e[yyyy]` flags equal 1 for between 3 and 6 percent of addresses, the `b[yyyy]` flags equal 1 for between 4 and 10 percent, and the `m[yyyy]` flag is 1 for between 80 and 90 percent. The `p[yyyy]` and `h[yyyy]` flags equal 1 for less than 1 percent of addresses because the ACS-POW and AHS data are sample surveys.

5.2.2 Other Variables

occupant_type The variable `occupant_type`, recoded from the file-year flags in Step 8, indicates whether an address is commercial, residential, or mixed-use.

bigsrcid The tracking ID `bigsrcid`, created in Step 1, uniquely identifies the entity that supplied the address. It consists of `[f], [yyyy]`, the unique ID from the input file, zero-padding, and for some source files, a flag indicating which set of variables supplied the address. For addresses originating in the Business Register, another flag indicates the single-unit data set or the multi-unit data set. This tracking ID variable is useful for debugging.

This variable is only available GAL_ZZ_2003_T26FLAGS.

srcmast A diagnostic variable `srcmast` contains `[f][yyyy]`, indicating the file-year that supplied this address. Bear in mind that it's often arbitrary which observation becomes the master address for a set of duplicates in Step 1 and Step 4, so `bigsrcid` and `srcmast` don't indicate anything special about an address or an entity. They simply identify the origin of an address that became a master address in unduplication.

This variable is only available GAL_ZZ_2003_T26FLAGS.

Code 1 variables The names of Code1 variables contain the prefix `c1_`. They impart mostly diagnostic information from Code1 processing. They could be useful for development work or address research.

*For records sourced exclusively from the BR, these variables are available on GAL_ZZ_2003_T26. For records sourced exclusively from the **ES202!** (**ES202!**), some variables were blanked on GAL_ZZ_2003 and are available on GAL_ZZ_2003_ES202ONLY to Census personnel only. Code1 diagnostic codes remain available to all researchers.*

Vality variables The parsed address elements from Step 3 sit in the variables named with the prefix `v_`. They could be useful for development work, particularly in improving the parsing routine.

*For records sourced exclusively from the BR, these variables are available on GAL_ZZ_2003_T26. For records sourced exclusively from the **ES202!**, some variables were blanked on GAL_ZZ_2003 and are available on GAL_ZZ_2003_ES202ONLY to Census personnel only. Vality diagnostic codes remain available to all researchers.*

5.2.3 Accessing the GAL: the GAL Crosswalks

The GAL Crosswalks allow you to extract geographic and address information about any entity whose address went into the GAL. Each crosswalk contains the identifiers of the entity, its galid, and sometimes flags. To attach geocodes, coordinates, or address information to an entity, merge the GAL Crosswalk to the GAL by galid, outputting only observations existing on the GAL Crosswalk. Then merge the resulting file to the entities of interest using the entity identifiers. An entity whose address wasn't processed (because it's out of state or lacks address information) will have blank GAL data.

- For the AHS, the entity ID variables are control and year.
- For the ES202, the entity ID variables are sein, seinunit, year, and quarter. The flag variable `e_flag` indicates whether the address came from the `address_street1`, `address_state`, and `address_zip9` variables (`e_flag=P` for physical address) or from the `ui_address_street1`, `ui_address_state`, and `ui_address_zip9` variables (`e_flag=M` for mailing address).
- For the ACS-POW data, the entity ID variables are `acsfileseq, cmid, seq`, and `pnum`.
- For the Business Register, the entity ID variables are `cfn, year`, and `singmult`. The flag variable `singmult` indicates whether the entity resides in the single-unit (su) or the multi-unit (mu) data set. Another flag variable `b_flag` indicates whether the address originated from the variables `pstreet,`

`pplce, pst`, and `pzip` (`b_flag=P` for physical address) or `street, plce, st`, and `zip` (`b_flag=M` for mailing address). .

- For the MAF, `mafid` and `year` identify entities.

5.2.4 Resources for geographic information

The best place for information about Census geography is

http://www.census.gov/geo/www/reference.html.

Especially informative is the Geographic Areas Reference Manual (GARM), at

http://www.census.gov/geo/www/garm.html

5.3 DATA SET DESCRIPTIONS

5.3.1 Naming scheme

All GAL files are labelled with the geovintage used in the creation, i.e., *2003* in S2004 and *2006* in S2008, and except for the main dataset, a suffix, composed of a dataset abbreviation and a calendar year:

The descriptions below reference the S2004 version of the file, which used geovintage 2003.

```
gal_zz_YYYY.sas7bdat
gal_zz_YYYY_t26flags.sas7bdat
gal_zz_YYYY_t26.sas7bdat
gal_zz_YYYY_acspow_2001.sas7bdat
gal_zz_YYYY_ahs_2002.sas7bdat
gal_zz_YYYY_br_2001.sas7bdat
gal_zz_YYYY_maf_2004.sas7bdat
gal_zz_YYYY_xwlk_2001.sas7bdat
gal_zz_YYYY_es202only.sas7bdat
```

`ZZ` stands for the state postal abbreviation, and `YYYY` for a calendar year. Not all files are available for all states. In particular, LEHD-related crosswalks are only available for states actively participating with LEHD at the time of creation of the GAL.

Suffix	Crosswalk to:	Availability
acspow	American Community Survey Place-of-Work Coding	2001-2005
ahs	American Housing Survey	as of 2002
br	Business Register (ex-SSEL)	1990-2001
maf	(Census) Master Address File	as of 2004
xwalk	LEHD ES-202	varies by state; consult LEHD-ES-202 documentation

Files with suffixes `t26`, `t26flags`, and `tccb` are not cross-walks. Consult Sections 5.3.4, 5.3.5, and 5.3.7, respectively.

5.3.2 Data location

The files are stored in two main directories, with state-specific subdirectories:

```
gal/ZZ/       for most files
galt26/ZZ     for files with Title 26 protected content
```

On the RDC network, both directories can be found under

```
/mixed/lehd/current
```

Files reserved for Census internal projects can be found in

```
galcc/ZZ
```

For the exact location, consult with the RDC administrator.

5.3.3 Main dataset: GAL_ZZ_2003

This file does not contain data protected exclusively under Title 26. Consult Section 5.3.4 and 5.3.5. This file also does not report any address data sourced exclusively from ES-202. If a field contains address data sourced exclusively from ES-202, the values have been blanked on this file, and preserved in `GAL_ZZ_2003_ES202ONLY` (see Section 5.3.6).

Record identifier: GALID

Sort order: GALID

File indexes: none

Entity unique address

Unique Entity Key GALID

Field name	Data dictionary reference name	Starting position	Field size	Data type
3-digit Census MCD	A_MCD	00612	3	A/N
4-digit Census Place	A_PLACE	00620	4	A/N
5-digit FIPS MCD	A_FIPSMCD	00607	5	A/N
5-digit FIPS Place	A_FIPSPL	00615	5	A/N
6-character Traffic Analysis Zone (leading blanks)	A_TAZ	00596	6	A/N
Address on AHS 2002 =1; else=0	H2002	00561	1	A/N
Address on ES202 year YYYY =1; else=0	EYYYY	00554	1	A/N
Address on MAF 2004 =1; else=0	M2004	00562	1	A/N
Address on ACS-POW year YYYY =1; else=0	PYYYY	00563	1	A/N
Census Block suffix 1	A_BLOCK_SUF1	00585	1	A/N
Census Block suffix 2	A_BLOCK_SUF2	00586	1	A/N
Census block within tract	A_BLOCK	00581	4	A/N
Census tract within county	A_TRACT	00590	6	A/N
Code1 Census block id 3 digit	C1_BLOCK	00489	3	A/N
Code1 Census block id 4 digit	C1_BLOCK4	00032	4	A/N
Code1 Census geocode (tract)	C1_GEOCODE	00477	12	A/N
Code1 USPS record type	C1_USPSRECTYPE	00467	1	A/N
Code1 ZIP	C1_ZIP	00457	5	A/N
Code1 ZIP code status	C1_ZIP_STATUS	00471	1	A/N
Code1 ZIP return code	C1_ZIP_RC	00021	1	A/N
Code1 ZIP source	C1_ZIP_SRC	00466	1	A/N
Code1 ZIP+4 code	C1_ZIP4	00462	4	A/N
Code1 ZIP4 return code	C1_ZIP4_RC	00022	1	A/N
Code1 address correctness score	C1_ADDRESS_CS	00469	1	A/N
Code1 address return code	C1_ADDRESS_RC	00017	1	A/N
Code1 address w/apt	C1_ADDRESS	00357	70	A/N
Code1 alias/base return code	C1_ALIAS_RC	00018	1	A/N
Code1 apartment return code	C1_APT_RC	00026	1	A/N
Code1 carrier route return code	C1_CARRTE_RC	00023	1	A/N
Code1 city name	C1_CITY	00427	28	A/N
Code1 city/state return code	C1_CITYSTATE_RC	00020	1	A/N
Code1 directional return code	C1_DIRECTIONAL_RC	00024	1	A/N
Code1 dropped information code	C1_DROPPEDINFO_RC	00019	1	A/N
Code1 general return code	C1_GENERAL_RC	00016	1	A/N
Code1 geocode return code	C1_GEO_RC	00476	1	A/N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Code1 lat/long coordinate	C1_LATLONG	00492	20	A/N
Code1 lat/long level	C1_LATLONG_RC	00512	1	A/N
Code1 master file vintage	C1_VINTDATE	00472	4	A/N
Code1 overall correctness	C1_OVERALL_RC	00468	1	A/N
Code1 state abbrev	C1_STATE	00455	2	A/N
Code1 street name correctness score	C1_STREETNAME_CS	00470	1	A/N
Code1 suffix return code	C1_SUFFIX_RC	00025	1	A/N
Describes source of block coding	A_BLOCK_SRC	00587	1	A/N
Commercial, Mixed, or Residential	OCCUPANT_TYPE	00568	1	A/N
FIPS county within state	A_CTY	00604	3	A/N
FIPS state	A_ST	00602	2	A/N
5-digit FIPS (state and county)	A_SSCCC	00638	5	A/N
Full geocode (incl. tract code)	A_GEOCODE	00569	11	A/N
Latitude, 6 implied decimal places	A_LATITUDE	00000	8	N
Longitude, 6 implied decimal places	A_LONGITUDE	00008	8	N
MSA-PMSA	A_MSAPMSA	00624	8	A/N
Maf, Code1, Derived, Block (or part) internal point	A_LATLONG_SRC	00580	1	A/N
Maf; Assigned by distance	A_BLOCK_SUF_SRC	00589	1	A/N
Quality of lat/long	A_GEOQUAL	00646	3	N
Unique GAL address ID	GALID	00513	29	A/N
Vality additional address info	V_ADDADDR	00220	35	A/N
Vality address type	V_ADDRTYP	00255	1	A/N
Vality box type	V_BTYPE	00128	7	A/N
Vality box value	V_BVAL	00135	10	A/N
Vality building name	V_BUILDN	00190	30	A/N
Vality floor type	V_FTYPE	00145	5	A/N
Vality floor value	V_FVAL	00150	10	A/N
Vality house number	V_HNUM	00036	10	A/N
Vality house number suffix	V_HNUMS	00046	10	A/N
Vality input pattern	V_INPATT	00311	20	A/N
Vality multi-unit type	V_MUTYPE	00175	5	A/N
Vality multi-unit value	V_MUVAL	00180	10	A/N
Vality rural route type	V_RTYPE	00115	3	A/N
Vality rural route value	V_RVAL	00118	10	A/N
Vality street name	V_SNAME	00080	25	A/N
Vality street prefix - directional	V_SPRED	00056	2	A/N
Vality street prefix - type	V_SPRET	00060	20	A/N
Vality street suffix - directional	V_SSUFD	00058	2	A/N
Vality street suffix - qualifier	V_SSUFQ	00110	5	A/N
Vality street suffix - type	V_SSUFT	00105	5	A/N
Vality unhandled data	V_UNDATA	00276	35	A/N
Vality unhandled pattern	V_UNPATT	00256	20	A/N
Vality unit type	V_UTYPE	00160	5	A/N
Vality unit value	V_UVAL	00165	10	A/N
Vintage of Census geography (GRF)	A_VINTAGE	00643	3	N
Workforce Investment Board area	A_WIB	00632	6	A/N
only addr on blockFace; extraPolation	A_LATLONG_DRV	00588	1	A/N

5.3.4 Auxiliary dataset: GAL_ZZ_2003_T26

This file has the same column structure as the main file, but contains all records sourced exclusively from Title 26-protected information. The columns are described in Section 5.3.3.

Record identifier: GALID

Sort order: GALID

File indexes: none

Entity unique address

Unique Entity Key GALID

5.3.5 Auxiliary dataset: GAL_ZZ_2003_T26flags

This file contains all Business Register-related flags, for all GAL records.

Record identifier: GALID

Sort order: GALID

File indexes: none

Entity unique address

Unique Entity Key GALID

Field name	Data dictionary reference name	Starting position	Field size	Data type
Address on SSEL 1990 =1; else=0	B1990	00029	1	A/N
Address on SSEL 1991 =1; else=0	B1991	00030	1	A/N
Address on SSEL 1992 =1; else=0	B1992	00031	1	A/N
Address on SSEL 1993 =1; else=0	B1993	00032	1	A/N
Address on SSEL 1994 =1; else=0	B1994	00033	1	A/N
Address on SSEL 1995 =1; else=0	B1995	00034	1	A/N
Address on SSEL 1996 =1; else=0	B1996	00035	1	A/N
Address on SSEL 1997 =1; else=0	B1997	00036	1	A/N
Address on SSEL 1998 =1; else=0	B1998	00037	1	A/N
Address on SSEL 1999 =1; else=0	B1999	00038	1	A/N
Address on SSEL 2000 =1; else=0	B2000	00039	1	A/N
Address on SSEL 2001 =1; else=0	B2001	00040	1	A/N
Tracking ID	BIGSRCID	00331	26	A/N
Unique GAL address ID A——YYYYMMDD_HHMM_ST——nnnnnnnnnnn	GALID	00000	29	A/N
Source file of this address	SRCMAST	00027	5	A/N

5.3.6 Auxiliary dataset: GAL_ZZ_2003_ES202ONLY

This file contains address information sourced exclusively from ES-202 files, which have been blanked on GAL_ZZ_2003. This file is only accessible to Census-internal projects.

Record identifier: GALID

Sort order: GALID

File indexes: none

Entity unique address

Unique Entity Key GALID

Field name	Data dictionary reference name	Starting position	Field size	Data type
	C1_ZIP	00457	5	A/N
Code1 ZIP				
Code1 ZIP+4 code	C1_ZIP4	00462	4	A/N
Code1 address w/apt	C1_ADDRESS	00357	70	A/N
Code1 city name	C1_CITY	00427	28	A/N
Code1 state abbrev	C1_STATE	00455	2	A/N
Unique GAL address ID	GALID	00513	29	A/N
Vality additional address info	V_ADDADDR	00220	35	A/N
Vality box value	V_BVAL	00135	10	A/N
Vality building name	V_BUILDN	00190	30	A/N
Vality floor value	V_FVAL	00150	10	A/N
Vality house number	V_HNUM	00036	10	A/N
Vality house number suffix	V_HNUMS	00046	10	A/N
Vality multi-unit value	V_MUVAL	00180	10	A/N
Vality rural route value	V_RVAL	00118	10	A/N
Vality street name	V_SNAME	00080	25	A/N
Vality street prefix - directional	V_SPRED	00056	2	A/N
Vality street prefix - type	V_SPRET	00060	20	A/N
Vality street suffix - directional	V_SSUFD	00058	2	A/N
Vality street suffix - qualifier	V_SSUFQ	00110	5	A/N
Vality street suffix - type	V_SSUFT	00105	5	A/N
Vality unhandled data	V_UNDATA	00276	35	A/N
Vality unhandled pattern	V_UNPATT	00256	20	A/N
Vality unit value	V_UVAL	00165	10	A/N

5.3.7 Auxiliary dataset: GAL_ZZ_2003_TCCB

The TCCB file provides county centroids in a structure similar to the main GAL file.

Record identifier: GALID

Sort order: GALID

File indexes: none

Entity unique address

Unique Entity Key GALID (merge or concat?)

Field name	Data dictionary reference name	Starting position	Field size	Data type
	A_BLOCK_SUF1	00092	1	A/N
	A_BLOCK_SUF2	00093	1	A/N
3-digit Census MCD	A_MCD	00085	3	A/N
4-digit Census Place	A_PLACE	00088	4	A/N
5-digit FIPS MCD	A_FIPSMCD	00075	5	A/N
5-digit FIPS Place	A_FIPSPL	00080	5	A/N
A=Arcview	A_BLOCK_SRC	00060	1	A/N
Census block within tract	A_BLOCK	00056	4	A/N
Full geocode (incl. tract)	A_GEOCODE	00045	11	A/N
Latitude, 6 implied decimal places	A_LATITUDE	00000	8	N
Longitude, 6 implied decimal places	A_LONGITUDE	00008	8	N
MSA-PMSA	A_MSAPMSA	00061	8	A/N
Quality of lat/long	A_GEOQUAL	00094	3	N
Unique GAL address ID	GALID	00016	29	A/N
Workforce Investment Board (WIB) area	A_WIB	00069	6	A/N

5.3.8 ACS Place-of-work Crosswalk: GAL_ZZ_2003_POW_YYYY

There is one ACS-POW Crosswalk per year of input data `YYYY`. Files are named `gal_ZZ_2003_pow_YYYY`.

Record identifier: cmid, seq, pnum

Sort order: cmid, seq, and pnum

File indexes: none

Entity Entity on ACS

Unique Entity Key cmid, seq, pnum, acsfileseq

Field name	Data dictionary reference name	Starting position	Field size	Data type
ACS file sequence number	ACSFILESEQ	00041	2	A/N
Address ID	GALID	00000	29	A/N
Continuous measurement ID	CMID	00029	9	A/N
Person number	PNUM	00039	2	A/N
Sequence number	SEQ	00038	1	A/N

5.3.9 AHS Crosswalk: GAL_ZZ_2003_AHS_YYYY

There is one AHS Crosswalk, tagged with the year `YYYY` the input dataset was captured. The file is called `gal_ZZ_2003_ahs_YYYY`.

Record identifier: control (year)

Sort order: control

File indexes: none

Entity Entity on AHS

Unique Entity Key control (year)

Field name	Data dictionary reference name	Starting position	Field size	Data type
	CONTROL	00033	13	A/N
Address ID	GALID	00000	29	A/N
Year YYYY	YEAR	00029	4	A/N

5.3.10 Business Register Crosswalk: GAL_ZZ_2003_BR_YYYY

There is one BR Crosswalk per year `YYYY` of input data. The files are called `gal_ZZ_2003_br_YYYY`. The entire file is considered FTI.

Record identifier: cfn, year singmult

Sort order: cfn

File indexes: none

Entity Establishment

Unique Entity Key cfn

Field name	Data dictionary reference name	Starting position	Field size	Data type
Address ID	GALID	00000	29	A/N
Census File Number	CFN	00033	10	A/N
P=physical,M=mailing	B_FLAG	00044	1	A/N
S=su file,M=mu file	SINGMULT	00043	1	A/N
Year YYYY	YEAR	00029	4	A/N

5.3.11 ES202 Crosswalk: GAL_ZZ_2003_XWALK_YYYY

There is one ES202 Crosswalk per year `YYYY` of input data. The files are called `gal_ZZ_2003_xwalk_YYYY`.

Record identifier: sein, seinunit, year, quarter

Sort order: sein seinunit

File indexes: none

Entity Reporting unit (SESA)

Unique Entity Key sein, seinunit, year, quarter

Field name	Data dictionary reference name	Starting position	Field size	Data type
Address ID	GALID	00000	29	A/N
P=physical,M=mailing	E_FLAG	00046	1	A/N
Quarter (numeric)	QUARTER	00050	3	N
State Employer ID Number	SEIN	00029	12	A/N
State UI Reporting Unit Number	SEINUNIT	00041	5	A/N
Year YYYY	YEAR	00047	3	N

5.3.12 MAF Crosswalk: GAL_ZZ_2003_MAF_2004

The crosswalk allows for linking back to the Census Master Address File (MAF) (2004 version). The file is called `gal_ZZ_2003_maf_2004`.

Record identifier: `mafid year`

Sort order: `mafid year`

File indexes: none

Entity `mafid` and `year`

Unique Entity Key `mafid year`

Field name	Data dictionary reference name	Starting position	Field size	Data type
Address ID	GALID	00000	29	A/N
Master Address File ID	MAFID	00033	12	A/N
Year YYYY	YEAR	00029	4	A/N

5.4 PROGRAMS

5.4.1 Separating Title 26 information

```
/* Time-stamp: <06/10/07 20:50:46 vilhuber> */
/* $Id: split_gal_t26.tex 131 2007-05-10 00:05:13Z vilhu001 $ */
%macro split_gal_t26(state=,outlib=WORK,outt26=WORK);
libname INPUTS "/mixedtmp/lehd2/s2004/gal_commingled/&state./";
libname OUTPUTS  "/mixedtmp/lehd2/s2004/gal/&state./";
libname OUTT26  "/mixedtmp/lehd2/s2004/galt26/&state./";
options compress=yes;
data &outlib..gal_&state._2003
(drop=b1: b2: label="Free of T26-only-sourced records and columns")
     &outt26..gal_&state._2003_t26
(drop=b1: b2: label="T26-only-sourced records")
     &outt26..gal_&state._2003_t26flags
(keep=galid b1: b2: compress=no label="T26-related flags only");
set INPUTS.gal_&state._2003;
```

Define lengths and labels.

```
length flag_t26 3;
label flag_t26= "Contains only T26-sourced information";

array t26flags b1: b2:;
array others e1: e2: h2: m2: p2: ;
hit_br=0;
hit_others=0;
```

see if we have BR information

```
do over t26flags;
if t26flags='1' then hit_br=1;
end;
```

see if we have any other information

```
do over others;
if others='1' then hit_others=1;
end;
flag_t26=(hit_br and not hit_others);
/* now do the cleaning */
output &outt26..gal_&state._2003_t26flags;
if flag_t26 then output &outt26..gal_&state._2003_t26;
else  output &outlib..gal_&state._2003;
run;
```

now sort the files

```
proc sort data=&outt26..gal_&state._2003_t26;
by galid;
run;
proc sort data=&outt26..gal_&state._2003_t26flags;
by galid;
run;
proc sort data=&outlib..gal_&state._2003;
by galid;
run;
```

Some info on the files.

```
proc contents data=&outt26..gal_&state._2003_t26flags;
run;
proc contents data=&outt26..gal_&state._2003_t26;
run;
proc contents data=&outlib..gal_&state._2003;
run;
libname OUTPUTS;
libname OUTT26;
libname INPUTS;
%mend;
```

5.4.2 Recombining GAL component files

```
/* Time-stamp: <06/10/07 21:10:48 vilhuber> */
/* $Id: 02.01.combine_gal_t26.tex 131 2007-05-10 00:05:13Z vilhu001 $ */
%macro combine_gal_t26(state=,inlib=WORK,int26=WORK);
libname INGAL "/mixed/lehd/current/gal/&state./";
libname INT26 "/mixed/lehd/current/galt26/&state./";
libname INPUTS (&inlib., &int26.);
```

Adjust this to suit your needs

```
libname OUTPUTS (work);
proc sort data= ORIG.gal_&state._2003 out= gal_orig(compress=yes);
by galid;
run;
```

First, put the two halves together this could have been an append as well, but this puts it into the right sort order

```
data merged;
merge INPUTS.gal_&state._2003_t26(in=a)
      INPUTS.gal_&state._2003(in=b);
by galid;
_merge=a+2*b;
run;
proc freq data=merged;
title " First merge";
table _merge;
run;
data OUTPUTS.gal_&state._combined;
merge merged(in=a drop=_merge)
      INPUTS.gal_&state._2003_t26flags(in=b)
;
by galid;
_merge=a+2*b;
run;
proc freq data=OUTPUTS.gal_&state._combined;
title " Second merge";
table _merge;
run;
%mend;
%combine_gal_t26(state=id);
```

5.5 NOTES

Chapter 6.
Individual Characteristics File (ICF)

6.1 OVERVIEW

The Individual Characteristics File (ICF) for each state contains one record for every person who is ever employed in that state over the time period spanned by the state's unemployment insurance records. It consolidates information from multiple input sources on gender, age, citizenship, point-in-time residence, and education. Information on gender, education, and age is imputed ten times when missing.

The Individual Characteristics File (ICF) for each state contains one record for every person who is ever employed in that state over the time period spanned by the state's unemployment insurance records.

The ICF is constructed in the following manner. First, the universe of individuals is defined by compiling the list of unique PIKs from the EHF. Demographic information from the PCF is then merged on by PIK, and records without a valid match flagged. PIK-survey identifier crosswalks link the CPS and SIPP ID variables into the ICF, and sex and age information from the CPS is used to complement and verify the PCF-provided information.

6.1.1 Age and sex imputation

Approximately 3% of the PIKs found in the UI wage records do not link to the PCF. Multiple imputation methods are used to impute date of birth and sex for these individuals. To impute sex, the probability of being male is estimated using a state-specific logit model:

$$P(male) = f(X_{is}\beta_s) \tag{6.1}$$

where X_{is} contains a full set of yearly log earnings and squared log earnings, and full set of employment indicators covering the time period spanned by the state's records, for each individual i with strictly positive earnings within state s and non-missing PCF sex. The state-specific $\hat{\beta}_s$ as estimated from Equation (6.1) is then used to predict the probability of being male for individuals with missing sex within state s, and sex is assigned as

$$\text{male if } X_{is}\hat{\beta}_s \geq \mu_l \tag{6.2}$$

where $\mu_l \sim U[0,1]$ is one of $l = 1, \ldots, 10$ independent draws from the distribution. Thus, each individual with missing sex is assigned ten independent missing data implicates, all of which are used in the QWI processing.[1]

The imputation of date of birth is done in a similar fashion using a multinomial logit to predict the probability of being in one of eight age categories and then assigning an age based on this probability and the distribution of ages within the category. Again, the missing data imputation occurs ten times.

[1]Note that this imputation does not account for estimation error in $\hat{\beta}$. This was one of the first missing data imputations developed at LEHD. At the time, techniques for sampling from the posterior predictive distribution of a binary outcome where the likelihood function is based on a logistic regression were not feasible on the LEHD computer system. Since only three percent of the observations in the ICF are subject to this missing data edit, it was implemented as described in the text. A longitudinal, enhanced ICF is under development. All missing data imputations in the new ICF will be performed by sampling from an appropriate posterior predictive distribution. This will properly account for estimation error.

If an individual is missing sex or birth date in the PCF, but not in the CPS, then the CPS values are used, not the imputed values. Also, before the imputation model for date of birth is implemented, basic editing of the date of birth variable takes place to account for obvious coding errors, such as a negative age at the time when UI earnings are first reported for the individual. In those relatively rare cases where the date of birth information is deemed unrealistic, it is set to missing and imputed based on the model described above.

6.1.2 Place of residence imputation

An additional set of files containing longitudinal address information will be made available, but is not yet documented.

Place of residence information on the ICF is derived from the StARS (Statistical Administrative Records System), which for the vast majority of the individuals found in the UI wage records contains information on the place of residence down to the exact geographical coordinates. However, in less than ten percent of all cases the geography information is incomplete or missing. The QWI estimation relies on completed place of residence information. Because this information is a critical conditioning variable in the unit-to-worker (U2W) imputation model, all missing residential addresses are imputed.

County of residence is imputed based on a categorical model of the data that is a fully-saturated contingency table. Separately for each state, unique combinations of categories of sex, age, race, income and county of work are used to form $i = 1, \ldots, I$ populations. For each sample i, the probability of residing in a particular county as of 1999, π_{ij}, is estimated by the sample proportion, $p_{ij} = n_{ij}/n_i$, where $j = 1, \ldots, J$ indexes all the counties in the state plus an extra category for out-of-state residents.

County of residence is then imputed based on

$$county = j \text{if} P_{ij-1} \leq u_k < P_{ij}$$

where P_i is the CDF corresponding to p_i for the ith population and $\mu_{kl} \sim U[0,1]$ is one of $k = 1, \ldots, 10$ independent draws for the lth individual belonging to the ith population.[2]

In its current version no geography below the county level is imputed and in those cases where exact geographical coordinates are incomplete the centroid of the finest geographical area is used. Thus, in cases where no geography information is available this amounts to the centroid of the imputed county. Geographical coordinates are not assigned to individuals whose county of residence has been imputed to be out-of-state.

6.1.3 Education imputation

The imputation model for education relies on a statistical match between the Decennial Census 1990 and LEHD data. The probability of belonging to one of 13 education categories is estimated using 1990 Decennial data conditional on characteristics that are common to both Decennial and LEHD data, using a state-specific logit model:

$$P(educat) = f(Z_{is}\gamma_s) \tag{6.3}$$

where Z_{is} contains age categories, earnings categories, and industry dummies for individuals age 14 and older in the 1990 Census Long Form residing in the state being estimated, and who reported strictly positive wage earnings. The education category is imputed based on

$$educat = j \text{ if} cp_{j-1} \leq \mu_l < cp_j$$

where $cp_j = Z_{is}\hat{\gamma}_s$ and $\mu_l \sim U[0,1]$ is one of $l = 11, \ldots, 20$ independent draws, and $i \in EHF$.[3] Education is expressed as approximate years of education.

[2] The longitudinal, enhanced ICF that is under development augments the model in the text with a Dirichlet prior distribution for the P_{ij}s. The imputations are then made by sampling from the posterior predictive distribution, which is also Dirichlet.

[3] In the longitudinally enhanced ICF that is under development, this imputation is replaced by a probablistic record link to Census 2000 long form data. Approximately one person in six acquires directly reported educational attainment as of 2000. The remaining individuals get 10 multiple imputations from a Dirichlet-Multinomial posterior predictive distribution.

6.2 DATA SET DESCRIPTIONS

6.2.1 Unique record identifier

The unique record identifier within each ICF file is the **P!** (**P!**)IK. However, in the current ICF scheme, a person may have (possibly inconsistent) records in multiple states. Each file therefore also contains a `state` variable. The combination `PIK - state` is unique across all states, within the set of ICF files, and should be used when concatenating or otherwise combining records from multiple states.

6.2.2 Naming scheme

There are five files in the ICF/ICFT26 group:

```
icf_zz.sas7bdat
icf_zz_implicates_age_sex.sas7bdat
icf_zz_implicates_county.sas7bdat
icf_zz_implicates_education.sas7bdat
icf_zz_t26.sas7bdat
```

`ZZ` stands for the state postal abbreviation. You will find zero-observation SAS datasets attached to this document - see the attachment tab.

6.2.3 Data location

The files are stored in two main directories, with state-specific subdirectories:

```
icf/ZZ/       for most files
icft26/ZZ     for files with Title 26 protected content
```

On the RDC network, both directories can be found under

```
/mixed/lehd/current
```

6.2.4 Main dataset: ICF_zz

This is the core dataset, containing all observed non-FTI and the first implicate for imputed variables.

Record identifier PIK

Sort order PIK

Entity PIK

Unique Entity Key PIK

Field name	Data dictionary reference name	Starting position	Field size	Data type
CPS Household ID for the first time this Pik matches CPS	HID1	00113	5	A/N
CPS Household ID for the second time this Pik matches CPS	HID2	00120	5	A/N
CPS Person ID variable for first time Pik matches CPS	PPOSOLD1	00118	2	A/N
CPS Person ID variable for second time Pik matches CPS	PPOSOLD2	00125	2	A/N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Census numident race codes=bestrace var	RACE	00112	1	A/N
Citizen Change Date Century	CITIZCC	00085	2	A/N
Citizen Change Date Year	CITIZYY	00088	2	A/N
DOB missing due to no numident match	DOBMISSING_NOMATCH	00111	1	A/N
Date of birth has been edited	DOBEDIT	00109	1	A/N
Date of birth imputation flag	DOBIMPUTED	00083	1	A/N
Date of birth missing in Numident	DOBMISSING	00110	1	A/N
Date of birth, sas format	DOB	00000	8	N
Ever Alien Flag	ALIEN	00084	1	A/N
First Internal SIPP ID matched to PIK	SIPPINTID1	00127	19	A/N
First year this Pik matches CPS	YEARCPS1	00033	3	N
Fourth Internal SIPP ID matched to PIK	SIPPINTID4	00184	19	A/N
Gender imputation flag	SEXIMPUTED	00082	1	A/N
Illegal SSN Range Flag	SSNFLAG	00203	1	A/N
Imputed education length	EDIMP1	00069	3	N
Month of first time this Pik matches CPS	MNTHCPS1	00039	3	N
Month of second time this Pik matches CPS	MNTHCPS2	00042	3	N
Number of SIPP Panels where Duplicate INTIDs match to PIK	DUPINSIPPPANEL	00054	3	N
Number of SIPP Panels where this PIK is found	COUNT_SIPPPANELS	00051	3	N
Numident variable=gender	SEX	00081	1	A/N
POB foreign indicator	POBFIN	00102	1	A/N
Pik duplicated across years,mapped to multiple CPS IDs, different years	CPSDUPIKCY	00024	3	N
Pik duplicated within year,mapped to multiple CPS IDs,single year	CPSDUPIK1	00027	3	N
Pik duplicated within year,mapped to multiple CPS IDs,single year	CPSDUPIK2	00030	3	N
Protected Identification Key	PIK	00072	9	A/N
SAS Date Value Date of Death	DOD	00008	8	N
SIPP PANEL of first INTID	PANELSIPP1	00057	3	N
SIPP PANEL of first INTID	PANELSIPP2	00060	3	N
SIPP PANEL of first INTID	PANELSIPP3	00063	3	N
SIPP PANEL of first INTID	PANELSIPP4	00066	3	N
Second Internal SIPP ID matched to PIK	SIPPINTID2	00146	19	A/N
Second year this Pik matches CPS	YEARCPS2	00036	3	N
State	STATE	00016	8	N
Third Internal SIPP ID matched to PIK	SIPPINTID3	00165	19	A/N
Year of latest PCF extract	YOPCF	00045	3	N
Year of latest StAR extract	YOSE	00048	3	N
citizen code	CITIZEN	00087	1	A/N
city,county of birth	POBCITY	00090	12	A/N
source of data	SOURCE	00105	2	A/N
state,country of birth	POBST	00103	2	A/N
type of source	SOURCETP	00107	2	A/N

6.2.5 Age and sex implicates: ICF_zz_implicates_age_sex

The first implicate for both date of birth and sex are stored on the main ICF file as DOB and SEX. Imputed values are flagged by the appropriate flag. Other implicates are found in this file, and can be merged on when required.

Record identifier PIK

Sort order PIK

Entity PIK

Unique Entity Key PIK

Field name	Data dictionary reference name	Starting position	Field size	Data type
Date of birth imputation flag	DOBIMPUTED	00082	1	A/N
Date of birth, SAS format (Implicate 10)	DOB10	00064	8	N
Date of birth, SAS format (Implicate 2)	DOB2	00000	8	N
Date of birth, SAS format (Implicate 3)	DOB3	00008	8	N
Date of birth, SAS format (Implicate 4)	DOB4	00016	8	N
Date of birth, SAS format (Implicate 5)	DOB5	00024	8	N
Date of birth, SAS format (Implicate 6)	DOB6	00032	8	N
Date of birth, SAS format (Implicate 7)	DOB7	00040	8	N
Date of birth, SAS format (Implicate 8)	DOB8	00048	8	N
Date of birth, SAS format (Implicate 9)	DOB9	00056	8	N
Gender imputation flag	SEXIMPUTED	00081	1	A/N
Numident variable=gender (Implicate 10)	SEX10	00091	1	A/N
Numident variable=gender (Implicate 2)	SEX2	00083	1	A/N
Numident variable=gender (Implicate 3)	SEX3	00084	1	A/N
Numident variable=gender (Implicate 4)	SEX4	00085	1	A/N
Numident variable=gender (Implicate 5)	SEX5	00086	1	A/N
Numident variable=gender (Implicate 6)	SEX6	00087	1	A/N
Numident variable=gender (Implicate 7)	SEX7	00088	1	A/N
Numident variable=gender (Implicate 8)	SEX8	00089	1	A/N
Numident variable=gender (Implicate 9)	SEX9	00090	1	A/N
Protected Identification Key	PIK	00072	9	A/N

6.2.6 Residence implicates: ICF_zz_implicates_county

The first implicate is stored on the ICF_t26 file as COUNTY_LIVE. Imputed values are flagged there by an appropriate flag COUNTYLIVEIMPUTED. Other implicates are found in this file, and can be merged on when required.

Record identifier PIK

Sort order PIK

Entity PIK

Unique Entity Key PIK

Field name	Data dictionary reference name	Starting position	Field size	Data type
County of Residence (implicate 10) run	COUNTY_LIVE10	00049	5	A/N
County of Residence (implicate 2)	COUNTY_LIVE2	00009	5	A/N
County of Residence (implicate 3)	COUNTY_LIVE3	00014	5	A/N
County of Residence (implicate 4)	COUNTY_LIVE4	00019	5	A/N
County of Residence (implicate 5)	COUNTY_LIVE5	00024	5	A/N
County of Residence (implicate 6)	COUNTY_LIVE6	00029	5	A/N
County of Residence (implicate 7)	COUNTY_LIVE7	00034	5	A/N
County of Residence (implicate 8)	COUNTY_LIVE8	00039	5	A/N
County of Residence (implicate 9)	COUNTY_LIVE9	00044	5	A/N
County of Residence imputation flag	COUNTYLIVEIMPUTED	00054	1	A/N
Protected Identification Key	PIK	00000	9	A/N

6.2.7 Education implicates: ICF_zz_implicates_education

The first implicate is stored on the main ICF file as EDIMP1. No flag exists, since all values are imputed. Other implicates are found in this file, and can be merged on when required.

Record identifier PIK

Sort order PIK

Entity PIK

Unique Entity Key PIK

Field name	Data dictionary reference name	Starting position	Field size	Data type
Imputed education length (implicate 10) run	EDIMP10	00024	3	N
Imputed education length (implicate 2)	EDIMP2	00000	3	N
Imputed education length (implicate 3)	EDIMP3	00003	3	N
Imputed education length (implicate 4)	EDIMP4	00006	3	N
Imputed education length (implicate 5)	EDIMP5	00009	3	N
Imputed education length (implicate 6)	EDIMP6	00012	3	N
Imputed education length (implicate 7)	EDIMP7	00015	3	N
Imputed education length (implicate 8)	EDIMP8	00018	3	N
Imputed education length (implicate 9)	EDIMP9	00021	3	N
Protected Identification Key	PIK	00027	9	A/N

6.2.8 Title 26 information: ICF_zz_t26

FTI has been removed from the core ICF, and stored separately. Note that in the RDC network, this file is stored under a separate set of permissions, and if users require access to this information, need to request access to an additional group. T26 variables are starred below.

Record identifier PIK

Sort order PIK

Entity PIK

Unique Entity Key PIK

Field name	Data dictionary reference name	Starting position	Field size	Data type
Admin record huid	HUID_1999 *	00047	35	A/N
Admin record source of huid	HUIDSRC_1999 *	00082	7	A/N
Basic street address conflict flag	HSRC23_1999 *	00089	7	A/N
County of Residence as of year 1999:2	COUNTY_LIVE *	00041	5	A/N
County of Residence imputation flag	COUNTYLIVEIMPUTED	00046	1	A/N
Flag quality of latitude/longitude of residence	FLAG_LATLONG	00000	8	N
Latitude of residence, 6 implied decimal places	LATITUDE_LIVE *	00008	8	N
Longitude of residence, 6 implied decimal places	LONGITUDE_LIVE *	00016	8	N
Protected Identification Key	PIK	00032	9	A/N
State (derived from UI wage records)	STATE	00024	8	N

6.2.9 Summary information on datasets

Table 6.6: Number of observations for ICF

Group	Number of datafiles	Records (1000s)	Filesize (GB)
ICF	188	738,400	55

Table 6.7: List of data files for ICF, by state

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Alaska (ak)				
icf_ak	1990Q1	2008Q4	1,200	< 5
icf_ak_implicates_age_sex	1990Q1	2008Q4	< 100	< 5
icf_ak_implicates_county	1990Q1	2008Q4	100	< 5
icf_ak_implicates_education	1990Q1	2008Q4	1,200	< 5
Alabama (al)				
icf_al	2001Q1	2008Q4	4,000	< 5
icf_al_implicates_age_sex	2001Q1	2008Q4	100	< 5
icf_al_implicates_county	2001Q1	2008Q4	400	< 5
icf_al_implicates_education	2001Q1	2008Q4	4,000	< 5
Arkansas (ar)				
icf_ar	2002Q3	2008Q4	2,500	< 5
icf_ar_implicates_age_sex	2002Q3	2008Q4	< 100	< 5
icf_ar_implicates_county	2002Q3	2008Q4	300	< 5
icf_ar_implicates_education	2002Q3	2008Q4	2,500	< 5
Arizona (az)				
icf_az	1992Q1	2008Q4	7,600	< 5
icf_az_implicates_age_sex	1992Q1	2008Q4	300	< 5
icf_az_implicates_county	1992Q1	2008Q4	1,100	< 5
icf_az_implicates_education	1992Q1	2008Q4	7,600	< 5
California (ca)				
icf_ca	1991Q3	2008Q4	40,800	< 5
icf_ca_implicates_age_sex	1991Q3	2008Q4	3,800	< 5
icf_ca_implicates_county	1991Q3	2008Q4	9,700	< 5
icf_ca_implicates_education	1991Q3	2008Q4	40,800	< 5
Colorado (co)				
icf_co	1990Q1	2008Q4	8,000	< 5
icf_co_implicates_age_sex	1990Q1	2008Q4	500	< 5
icf_co_implicates_county	1990Q1	2008Q4	1,200	< 5
icf_co_implicates_education	1990Q1	2008Q4	8,000	< 5
Delaware (de)				
icf_de	1998Q3	2008Q4	1,100	< 5
icf_de_implicates_age_sex	1998Q3	2008Q4	< 100	< 5
icf_de_implicates_county	1998Q3	2008Q4	100	< 5
icf_de_implicates_education	1998Q3	2008Q4	1,100	< 5
Florida (fl)				
icf_fl	1992Q4	2008Q4	22,800	< 5
icf_fl_implicates_age_sex	1992Q4	2008Q4	1,300	< 5
icf_fl_implicates_county	1992Q4	2008Q4	4,200	< 5

(cont)

Table 6.7 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
icf_fl_implicates_education	1992Q4	2008Q4	22,800	< 5
Georgia (ga)				
icf_ga	1994Q1	2008Q4	11,500	< 5
icf_ga_implicates_age_sex	1994Q1	2008Q4	800	< 5
icf_ga_implicates_county	1994Q1	2008Q4	1,900	< 5
icf_ga_implicates_education	1994Q1	2008Q4	11,500	< 5
Hawaii (hi)				
icf_hi	1995Q4	2008Q4	1,300	< 5
icf_hi_implicates_age_sex	1995Q4	2008Q4	< 100	< 5
icf_hi_implicates_county	1995Q4	2008Q4	200	< 5
icf_hi_implicates_education	1995Q4	2008Q4	1,300	< 5
Iowa (ia)				
icf_ia	1998Q4	2008Q4	3,200	< 5
icf_ia_implicates_age_sex	1998Q4	2008Q4	< 100	< 5
icf_ia_implicates_county	1998Q4	2008Q4	300	< 5
icf_ia_implicates_education	1998Q4	2008Q4	3,200	< 5
Idaho (id)				
icf_id	1990Q1	2008Q4	2,200	< 5
icf_id_implicates_age_sex	1990Q1	2008Q4	< 100	< 5
icf_id_implicates_county	1990Q1	2008Q4	300	< 5
icf_id_implicates_education	1990Q1	2008Q4	2,200	< 5
Illinois (il)				
icf_il	1990Q1	2008Q4	16,200	< 5
icf_il_implicates_age_sex	1990Q1	2008Q4	1,100	< 5
icf_il_implicates_county	1990Q1	2008Q4	2,700	< 5
icf_il_implicates_education	1990Q1	2008Q4	16,200	< 5
Indiana (in)				
icf_in	1990Q1	2008Q4	8,000	< 5
icf_in_implicates_age_sex	1990Q1	2008Q4	300	< 5
icf_in_implicates_county	1990Q1	2008Q4	800	< 5
icf_in_implicates_education	1990Q1	2008Q4	8,000	< 5
Kansas (ks)				
icf_ks	1990Q1	2008Q4	4,600	< 5
icf_ks_implicates_age_sex	1990Q1	2008Q4	300	< 5
icf_ks_implicates_county	1990Q1	2008Q4	700	< 5
icf_ks_implicates_education	1990Q1	2008Q4	4,600	< 5
Kentucky (ky)				
icf_ky	1996Q4	2008Q4	4,600	< 5
icf_ky_implicates_age_sex	1996Q4	2008Q4	100	< 5
icf_ky_implicates_county	1996Q4	2008Q4	500	< 5
icf_ky_implicates_education	1996Q4	2008Q4	4,600	< 5
Louisiana (la)				
icf_la	1990Q1	2008Q4	5,800	< 5
icf_la_implicates_age_sex	1990Q1	2008Q4	200	< 5
icf_la_implicates_county	1990Q1	2008Q4	700	< 5
icf_la_implicates_education	1990Q1	2008Q4	5,800	< 5
Maryland (md)				
icf_md	1985Q2	2008Q4	8,600	< 5
icf_md_implicates_age_sex	1985Q2	2008Q4	300	< 5

(cont)

Table 6.7 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
icf_md_implicates_county	1985Q2	2008Q4	1,300	< 5
icf_md_implicates_education	1985Q2	2008Q4	8,600	< 5
Maine (me)				
icf_me	1996Q1	2008Q4	1,500	< 5
icf_me_implicates_age_sex	1996Q1	2008Q4	< 100	< 5
icf_me_implicates_county	1996Q1	2008Q4	200	< 5
icf_me_implicates_education	1996Q1	2008Q4	1,500	< 5
Michigan (mi)				
icf_mi	1998Q1	2008Q4	8,800	< 5
icf_mi_implicates_age_sex	1998Q1	2008Q4	200	< 5
icf_mi_implicates_county	1998Q1	2008Q4	800	< 5
icf_mi_implicates_education	1998Q1	2008Q4	8,800	< 5
Minnesota (mn)				
icf_mn	1994Q3	2008Q4	5,800	< 5
icf_mn_implicates_age_sex	1994Q3	2008Q4	300	< 5
icf_mn_implicates_county	1994Q3	2008Q4	700	< 5
icf_mn_implicates_education	1994Q3	2008Q4	5,800	< 5
Missouri (mo)				
icf_mo	1990Q1	2008Q4	8,000	< 5
icf_mo_implicates_age_sex	1990Q1	2008Q4	300	< 5
icf_mo_implicates_county	1990Q1	2008Q4	900	< 5
icf_mo_implicates_education	1990Q1	2008Q4	8,000	< 5
Mississippi (ms)				
icf_ms	2003Q3	2008Q4	2,300	< 5
icf_ms_implicates_age_sex	2003Q3	2008Q4	< 100	< 5
icf_ms_implicates_county	2003Q3	2008Q4	200	< 5
icf_ms_implicates_education	2003Q3	2008Q4	2,300	< 5
Montana (mt)				
icf_mt	1993Q1	2008Q4	1,300	< 5
icf_mt_implicates_age_sex	1993Q1	2008Q4	< 100	< 5
icf_mt_implicates_county	1993Q1	2008Q4	100	< 5
icf_mt_implicates_education	1993Q1	2008Q4	1,300	< 5
North Carolina (nc)				
icf_nc	1991Q1	2008Q1	11,600	< 5
icf_nc_implicates_age_sex	1991Q1	2008Q1	800	< 5
icf_nc_implicates_county	1991Q1	2008Q1	1,800	< 5
icf_nc_implicates_education	1991Q1	2008Q1	11,600	< 5
North Dakota (nd)				
icf_nd	1998Q1	2008Q4	800	< 5
icf_nd_implicates_age_sex	1998Q1	2008Q4	< 100	< 5
icf_nd_implicates_county	1998Q1	2008Q4	< 100	< 5
icf_nd_implicates_education	1998Q1	2008Q4	800	< 5
Nebraska (ne)				
icf_ne	1999Q1	2008Q4	2,000	< 5
icf_ne_implicates_age_sex	1999Q1	2008Q4	< 100	< 5
icf_ne_implicates_county	1999Q1	2008Q4	200	< 5
icf_ne_implicates_education	1999Q1	2008Q4	2,000	< 5
New Jersey (nj)				
icf_nj	1996Q1	2008Q4	10,000	< 5

(cont)

Table 6.7 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
icf_nj_implicates_age_sex	1996Q1	2008Q4	500	< 5
icf_nj_implicates_county	1996Q1	2008Q4	1,800	< 5
icf_nj_implicates_education	1996Q1	2008Q4	10,000	< 5
New Mexico (nm)				
icf_nm	1995Q3	2008Q4	2,400	< 5
icf_nm_implicates_age_sex	1995Q3	2008Q4	< 100	< 5
icf_nm_implicates_county	1995Q3	2008Q4	300	< 5
icf_nm_implicates_education	1995Q3	2008Q4	2,400	< 5
Nevada (nv)				
icf_nv	1998Q1	2008Q4	3,500	< 5
icf_nv_implicates_age_sex	1998Q1	2008Q4	200	< 5
icf_nv_implicates_county	1998Q1	2008Q4	600	< 5
icf_nv_implicates_education	1998Q1	2008Q4	3,500	< 5
New York (ny)				
icf_ny	1995Q1	2008Q4	21,900	< 5
icf_ny_implicates_age_sex	1995Q1	2008Q4	1,100	< 5
icf_ny_implicates_county	1995Q1	2008Q4	3,800	< 5
icf_ny_implicates_education	1995Q1	2008Q4	21,900	< 5
Ohio (oh)				
icf_oh	2000Q1	2008Q4	10,000	< 5
icf_oh_implicates_age_sex	2000Q1	2008Q4	200	< 5
icf_oh_implicates_county	2000Q1	2008Q4	900	< 5
icf_oh_implicates_education	2000Q1	2008Q4	10,000	< 5
Oklahoma (ok)				
icf_ok	2000Q1	2008Q4	3,300	< 5
icf_ok_implicates_age_sex	2000Q1	2008Q4	< 100	< 5
icf_ok_implicates_county	2000Q1	2008Q4	300	< 5
icf_ok_implicates_education	2000Q1	2008Q4	3,300	< 5
Oregon (or)				
icf_or	1991Q1	2008Q4	5,300	< 5
icf_or_implicates_age_sex	1991Q1	2008Q4	300	< 5
icf_or_implicates_county	1991Q1	2008Q4	800	< 5
icf_or_implicates_education	1991Q1	2008Q4	5,300	< 5
Pennsylvania (pa)				
icf_pa	1991Q1	2008Q4	14,000	< 5
icf_pa_implicates_age_sex	1991Q1	2008Q4	400	< 5
icf_pa_implicates_county	1991Q1	2008Q4	1,500	< 5
icf_pa_implicates_education	1991Q1	2008Q4	14,000	< 5
Rhode Island (ri)				
icf_ri	1995Q1	2008Q4	1,400	< 5
icf_ri_implicates_age_sex	1995Q1	2008Q4	< 100	< 5
icf_ri_implicates_county	1995Q1	2008Q4	200	< 5
icf_ri_implicates_education	1995Q1	2008Q4	1,400	< 5
South Carolina (sc)				
icf_sc	1998Q1	2008Q4	4,900	< 5
icf_sc_implicates_age_sex	1998Q1	2008Q4	200	< 5
icf_sc_implicates_county	1998Q1	2008Q4	600	< 5
icf_sc_implicates_education	1998Q1	2008Q4	4,900	< 5
South Dakota (sd)				

(cont)

Table 6.7 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
icf_sd	1994Q1	2008Q4	1,100	< 5
icf_sd_implicates_age_sex	1994Q1	2008Q4	< 100	< 5
icf_sd_implicates_county	1994Q1	2008Q4	< 100	< 5
icf_sd_implicates_education	1994Q1	2008Q4	1,100	< 5
Tennessee (tn)				
icf_tn	1998Q1	2008Q4	6,700	< 5
icf_tn_implicates_age_sex	1998Q1	2008Q4	200	< 5
icf_tn_implicates_county	1998Q1	2008Q4	700	< 5
icf_tn_implicates_education	1998Q1	2008Q4	6,700	< 5
Texas (tx)				
icf_tx	1995Q1	2008Q4	24,100	< 5
icf_tx_implicates_age_sex	1995Q1	2008Q4	1,700	< 5
icf_tx_implicates_county	1995Q1	2008Q4	4,400	< 5
icf_tx_implicates_education	1995Q1	2008Q4	24,100	< 5
Utah (ut)				
icf_ut	1999Q1	2008Q4	2,700	< 5
icf_ut_implicates_age_sex	1999Q1	2008Q4	100	< 5
icf_ut_implicates_county	1999Q1	2008Q4	400	< 5
icf_ut_implicates_education	1999Q1	2008Q4	2,700	< 5
Virginia (va)				
icf_va	1998Q1	2008Q4	8,700	< 5
icf_va_implicates_age_sex	1998Q1	2008Q4	300	< 5
icf_va_implicates_county	1998Q1	2008Q4	1,200	< 5
icf_va_implicates_education	1998Q1	2008Q4	8,700	< 5
Vermont (vt)				
icf_vt	2000Q1	2008Q4	700	< 5
icf_vt_implicates_age_sex	2000Q1	2008Q4	< 100	< 5
icf_vt_implicates_county	2000Q1	2008Q4	< 100	< 5
icf_vt_implicates_education	2000Q1	2008Q4	700	< 5
Washington (wa)				
icf_wa	1990Q1	2008Q4	8,900	< 5
icf_wa_implicates_age_sex	1990Q1	2008Q4	500	< 5
icf_wa_implicates_county	1990Q1	2008Q4	1,500	< 5
icf_wa_implicates_education	1990Q1	2008Q4	8,900	< 5
Wisconsin (wi)				
icf_wi	1990Q1	2008Q4	6,400	< 5
icf_wi_implicates_age_sex	1990Q1	2008Q4	100	< 5
icf_wi_implicates_county	1990Q1	2008Q4	500	< 5
icf_wi_implicates_education	1990Q1	2008Q4	6,400	< 5
West Virginia (wv)				
icf_wv	1997Q1	2008Q4	1,800	< 5
icf_wv_implicates_age_sex	1997Q1	2008Q4	< 100	< 5
icf_wv_implicates_county	1997Q1	2008Q4	100	< 5
icf_wv_implicates_education	1997Q1	2008Q4	1,800	< 5
Wyoming (wy)				
icf_wy	1992Q1	2008Q4	1,200	< 5
icf_wy_implicates_age_sex	1992Q1	2008Q4	< 100	< 5
icf_wy_implicates_county	1992Q1	2008Q4	100	< 5

(cont)

Table 6.7 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
icf_wy_implicates_education	1992Q1	2008Q4	1,200	< 5

Number of files for each data set group and state. Aggregate size of all files in GB in parentheses.

Table 6.8: Number of observations for ICFT26

Group	Number of datafiles	Records (1000s)	Filesize (GB)
ICFT26	47	334,800	30

Table 6.9: List of data files for ICFT26, by state

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Alaska (ak)				
icf_ak_t26	1990Q1	2008Q4	1,200	< 5
Alabama (al)				
icf_al_t26	2001Q1	2008Q4	4,000	< 5
Arkansas (ar)				
icf_ar_t26	2002Q3	2008Q4	2,500	< 5
Arizona (az)				
icf_az_t26	1992Q1	2008Q4	7,600	< 5
California (ca)				
icf_ca_t26	1991Q3	2008Q4	40,800	< 5
Colorado (co)				
icf_co_t26	1990Q1	2008Q4	8,000	< 5
Delaware (de)				
icf_de_t26	1998Q3	2008Q4	1,100	< 5
Florida (fl)				
icf_fl_t26	1992Q4	2008Q4	22,800	< 5
Georgia (ga)				
icf_ga_t26	1994Q1	2008Q4	11,500	< 5
Hawaii (hi)				
icf_hi_t26	1995Q4	2008Q4	1,300	< 5
Iowa (ia)				
icf_ia_t26	1998Q4	2008Q4	3,200	< 5
Idaho (id)				
icf_id_t26	1990Q1	2008Q4	2,200	< 5
Illinois (il)				
icf_il_t26	1990Q1	2008Q4	16,200	< 5
Indiana (in)				
icf_in_t26	1990Q1	2008Q4	8,000	< 5
Kansas (ks)				
icf_ks_t26	1990Q1	2008Q4	4,600	< 5
Kentucky (ky)				
icf_ky_t26	1996Q4	2008Q4	4,600	< 5
Louisiana (la)				
icf_la_t26	1990Q1	2008Q4	5,800	< 5
Maryland (md)				

(cont)

Table 6.9 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
icf_md_t26	1985Q2	2008Q4	8,600	< 5
Maine (me)				
icf_me_t26	1996Q1	2008Q4	1,500	< 5
Michigan (mi)				
icf_mi_t26	1998Q1	2008Q4	8,800	< 5
Minnesota (mn)				
icf_mn_t26	1994Q3	2008Q4	5,800	< 5
Missouri (mo)				
icf_mo_t26	1990Q1	2008Q4	8,000	< 5
Mississippi (ms)				
icf_ms_t26	2003Q3	2008Q4	2,300	< 5
Montana (mt)				
icf_mt_t26	1993Q1	2008Q4	1,300	< 5
North Carolina (nc)				
icf_nc_t26	1991Q1	2008Q1	11,600	< 5
North Dakota (nd)				
icf_nd_t26	1998Q1	2008Q4	800	< 5
Nebraska (ne)				
icf_ne_t26	1999Q1	2008Q4	2,000	< 5
New Jersey (nj)				
icf_nj_t26	1996Q1	2008Q4	10,000	< 5
New Mexico (nm)				
icf_nm_t26	1995Q3	2008Q4	2,400	< 5
Nevada (nv)				
icf_nv_t26	1998Q1	2008Q4	3,500	< 5
New York (ny)				
icf_ny_t26	1995Q1	2008Q4	21,900	< 5
Ohio (oh)				
icf_oh_t26	2000Q1	2008Q4	10,000	< 5
Oklahoma (ok)				
icf_ok_t26	2000Q1	2008Q4	3,300	< 5
Oregon (or)				
icf_or_t26	1991Q1	2008Q4	5,300	< 5
Pennsylvania (pa)				
icf_pa_t26	1991Q1	2008Q4	14,000	< 5
Rhode Island (ri)				
icf_ri_t26	1995Q1	2008Q4	1,400	< 5
South Carolina (sc)				
icf_sc_t26	1998Q1	2008Q4	4,900	< 5
South Dakota (sd)				
icf_sd_t26	1994Q1	2008Q4	1,100	< 5
Tennessee (tn)				
icf_tn_t26	1998Q1	2008Q4	6,700	< 5
Texas (tx)				
icf_tx_t26	1995Q1	2008Q4	24,100	< 5
Utah (ut)				
icf_ut_t26	1999Q1	2008Q4	2,700	< 5
Virginia (va)				

(cont)

Table 6.9 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
icf_va_t26	1998Q1	2008Q4	8,700	< 5
Vermont (vt)				
icf_vt_t26	2000Q1	2008Q4	700	< 5
Washington (wa)				
icf_wa_t26	1990Q1	2008Q4	8,900	< 5
Wisconsin (wi)				
icf_wi_t26	1990Q1	2008Q4	6,400	< 5
West Virginia (wv)				
icf_wv_t26	1997Q1	2008Q4	1,800	< 5
Wyoming (wy)				
icf_wy_t26	1992Q1	2008Q4	1,200	< 5

Number of files for each data set group and state. Aggregate size of all files in GB in parentheses.

6.3 HELPFUL PROGRAMS

The following programs might be found to be useful when using the data.

6.3.1 Recombining T26 data with the core ICF

The following program allows users to combine the Title 26 variables with the core ICF. This program was used in slightly modified form for quality assurance during the preparation of the data for the RDC environment.

```
/* Time-stamp: <07/05/03 23:49:08 vilhuber> */
/* $Id: 02.02.combine_icf_t26.sas 121 2007-05-04 12:18:17Z vilhu001 $ */



%macro combine_icf_t26(state=,inlib=WORK,int26=WORK);

libname INLIB "/mixedtmp/lehd/s2004/icf/&state./";
libname INT26 "/mixedtmp/lehd/s2004/icft26/&state./";
libname INPUTS (&inlib., &int26.);

libname ORIG "/mixedtmp/lehd2/s2004_obsolete/icf_commingled/&state./" access=readonly;

proc sort data= ORIG.icf_&state out= icf_orig(compress=yes);
by pik;
run;

data work.merged(sortedby=pik state);
merge INPUTS.icf_&state._t26  INPUTS.icf_&state.;
by pik state;
run;

proc contents data=icf_orig;
run;
proc contents data=work.merged;
run;

*proc compare data=icf_orig briefsummary compare=work.merged;
*run;
%mend;


/* example - this works for all states */
libname temp '/temporary/saswork1/snapshot';
options mprint symbolgen;
%combine_icf_t26(state=al,inlib=INLIB,int26=INT26);
```

6.3.2 Selecting a random subsample of persons

The following program allows users to select a random sample of approximately one percent of individuals on the ICF. It relies on the fact that the first two characters of the PIK are approximately uniformly distributed on $[00, 99]$. Note that 'AA' is a valid value for the first two characters and denotes individuals for whom no valid SSN was on file. Occurrence of such "pseudo-PIKs" varies by state.

```
%let state=ca;
libname INLIB "/mixed/lehd/s2004/icf/&state./";

data my_icf;
   set INLIB.icf_&state.(where=(substr(PIK,1,2)='01'));
run;
```

6.4 NOTES

- **CPS identifiers only up to 1997**. CPS identifiers were matched to the LEHD ICF for consenting CPS respondents from 1986-1997. Later years are currently not available.
- **SIPP identifiers up to 2001**. SIPP identifiers were matched to the LEHD ICF for consenting SIPP respondents between 1984 and 2001.

Chapter 7.
Quarterly Workforce Indicators - SEINUNIT file (QWI)

7.1 OVERVIEW

The Quarterly Workforce Indicators (QWI) establishment file Contains quarterly measures of workforce composition and worker turnover at the establishment level for selected states for 1990-2003 (exact years vary by state). The LEHD establishment-level measures are created from longitudinally integrated person and establishment-level data. Establishment-level measures include: (i) Worker and Job Flows: accessions, separations, job creation, job destruction by age and gender of workforce; (ii) Worker composition by gender and age, (iii) Worker compensation for stocks and flows by gender and age; (iv) Dynamic worker compensation summary statistics for stocks and flows by gender and age. The LEHD-QWI may be used in combination with the LEHD Business Register Bridge (LEHD-BRB) to match to other Census micro business databases, and can be by firm-establishment identifiers to other LEHD Infrastructure files.

7.2 DATA SET DESCRIPTIONS

7.2.1 Coverage of QWI

QWI data are available for all states that are LED-state partners, however, not every state is currently a LED-state partner. The QWI are built upon wage records in the UI system and information from state ES-202 data. The universe of QWI data is UI-covered earnings. UI coverage is broad, covering over 90% of total wage and salary civilian jobs.

When QWI private industry employment numbers are compared with other employment data, exclusions to UI coverage should be taken into account. Federal government employment is not generally included. Exempted employment varies slightly from state to state due to variations in state unemployment laws, but generally also excludes many farmers and agricultural employees, domestic workers, self-employed non-agricultural workers, members of the Armed Services, some state and local government employees as well as certain types of nonprofit employers and religious organizations (which are given a choice of coverage or noncoverage in a number of states). See "Employment that is not covered by state unemployment" (LEHD TP-2007-04) for a more detailed discussion.

7.2.2 Naming scheme

Describe the naming scheme.

`qwi_zz_seinunit.sas7bdat`

`ZZ` stands for the state postal abbreviation, and `YYYY` for a calendar year. You will find zero-observation SAS datasets attached to this document - see the attachment tab.

7.2.3 Data location

The files are stored in two main directories, with state-specific subdirectories:

`qwi/ZZ/`

On the RDC network, the directory can be found under

`/mixed/lehd/current`

7.2.4 Main dataset: QWI_ZZ_SEINUNIT

The `QWI_ZZ_SEINUNIT` file (LEHD internal name: UFFb) is a file at the SEINUNIT level, providing detailed statistics for an establishment (SEIN + SEINUNIT) at every combination of SEX x AGEGROUP. Age groups are defined using the WIA categorization. The agegroup and sex margins are represented as variable arrays in the UFFb.

Record identifier YEAR QUARTER SEIN SEINUNIT

Sort order YEAR QUARTER SEIN SEINUNIT

Entity Establishment

Unique Entity Key SEIN SEINUNIT

Field name	Data dictionary reference name	Starting position	Field size	Data type
=0 from ECF_SEIN, =1 if from ECF_SEINUNIT, =z not found	UNIT_DETAIL_FLAG	07525	1	A/N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Accessions for Female and age 14-18	A_A2A01	01880	4	N
Accessions for Female and age 14-99	A_A2A00	01868	4	N
Accessions for Female and age 19-21	A_A2A02	01892	4	N
Accessions for Female and age 22-24	A_A2A03	01904	4	N
Accessions for Female and age 25-34	A_A2A04	01916	4	N
Accessions for Female and age 35-44	A_A2A05	01928	4	N
Accessions for Female and age 45-54	A_A2A06	01940	4	N
Accessions for Female and age 55-64	A_A2A07	01952	4	N
Accessions for Female and age 65-99	A_A2A08	01964	4	N
Accessions for Male and Female and age 14-18	A_A0A01	01872	4	N
Accessions for Male and Female and age 14-99	A_A0A00	01860	4	N
Accessions for Male and Female and age 19-21	A_A0A02	01884	4	N
Accessions for Male and Female and age 22-24	A_A0A03	01896	4	N
Accessions for Male and Female and age 25-34	A_A0A04	01908	4	N
Accessions for Male and Female and age 35-44	A_A0A05	01920	4	N
Accessions for Male and Female and age 45-54	A_A0A06	01932	4	N
Accessions for Male and Female and age 55-64	A_A0A07	01944	4	N
Accessions for Male and Female and age 65-99	A_A0A08	01956	4	N
Accessions for Male and age 14-18	A_A1A01	01876	4	N
Accessions for Male and age 14-99	A_A1A00	01864	4	N
Accessions for Male and age 19-21	A_A1A02	01888	4	N
Accessions for Male and age 22-24	A_A1A03	01900	4	N
Accessions for Male and age 25-34	A_A1A04	01912	4	N
Accessions for Male and age 35-44	A_A1A05	01924	4	N
Accessions for Male and age 45-54	A_A1A06	01936	4	N
Accessions for Male and age 55-64	A_A1A07	01948	4	N
Accessions for Male and age 65-99	A_A1A08	01960	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A01	05120	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A00	05108	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A02	05132	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A03	05144	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A04	05156	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A05	05168	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A06	05180	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A07	05192	4	N
Alternate definition of B that does not reflect flow suppression for Female and	BDOT_A2A08	05204	4	N
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A01	05112	4	N
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A00	05100	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A02	05124	4	N
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A03	05136	4	N
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A04	05148	4	N
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A05	05160	4	N
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A06	05172	4	N
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A07	05184	4	N
Alternate definition of B that does not reflect flow suppression for Male and Fe	BDOT_A0A08	05196	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A01	05116	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A00	05104	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A02	05128	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A03	05140	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A04	05152	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A05	05164	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A06	05176	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A07	05188	4	N
Alternate definition of B that does not reflect flow suppression for Male and ag	BDOT_A1A08	05200	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A01	05228	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A00	05216	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A02	05240	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A03	05252	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A04	05264	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A05	05276	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A06	05288	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A07	05300	4	N
Alternate definition of E that does not reflect flow suppression for Female and	EDOT_A2A08	05312	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A01	05220	4	N
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A00	05208	4	N
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A02	05232	4	N
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A03	05244	4	N
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A04	05256	4	N
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A05	05268	4	N
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A06	05280	4	N
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A07	05292	4	N
Alternate definition of E that does not reflect flow suppression for Male and Fe	EDOT_A0A08	05304	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A01	05224	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A00	05212	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A02	05236	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A03	05248	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A04	05260	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A05	05272	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A06	05284	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A07	05296	4	N
Alternate definition of E that does not reflect flow suppression for Male and ag	EDOT_A1A08	05308	4	N
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A01	05336	4	N
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A00	05324	4	N
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A02	05348	4	N
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A03	05360	4	N
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A04	05372	4	N
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A05	05384	4	N
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A06	05396	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A07	05408	4	N
Alternate definition of F that does not reflect flow suppression for Female and	FDOT_A2A08	05420	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A01	05328	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A00	05316	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A02	05340	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A03	05352	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A04	05364	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A05	05376	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A06	05388	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A07	05400	4	N
Alternate definition of F that does not reflect flow suppression for Male and Fe	FDOT_A0A08	05412	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A01	05332	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A00	05320	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A02	05344	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A03	05356	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A04	05368	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A05	05380	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A06	05392	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A07	05404	4	N
Alternate definition of F that does not reflect flow suppression for Male and ag	FDOT_A1A08	05416	4	N
Average accession rate for Female and age 14-18	AR_A2A01	01988	4	N
Average accession rate for Female and age 14-99	AR_A2A00	01976	4	N
Average accession rate for Female and age 19-21	AR_A2A02	02000	4	N
Average accession rate for Female and age 22-24	AR_A2A03	02012	4	N
Average accession rate for Female and age 25-34	AR_A2A04	02024	4	N
Average accession rate for Female and age 35-44	AR_A2A05	02036	4	N
Average accession rate for Female and age 45-54	AR_A2A06	02048	4	N
Average accession rate for Female and age 55-64	AR_A2A07	02060	4	N
Average accession rate for Female and age 65-99	AR_A2A08	02072	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average accession rate for Male and Female and age 14-18	AR_A0A01	01980	4	N
Average accession rate for Male and Female and age 14-99	AR_A0A00	01968	4	N
Average accession rate for Male and Female and age 19-21	AR_A0A02	01992	4	N
Average accession rate for Male and Female and age 22-24	AR_A0A03	02004	4	N
Average accession rate for Male and Female and age 25-34	AR_A0A04	02016	4	N
Average accession rate for Male and Female and age 35-44	AR_A0A05	02028	4	N
Average accession rate for Male and Female and age 45-54	AR_A0A06	02040	4	N
Average accession rate for Male and Female and age 55-64	AR_A0A07	02052	4	N
Average accession rate for Male and Female and age 65-99	AR_A0A08	02064	4	N
Average accession rate for Male and age 14-18	AR_A1A01	01984	4	N
Average accession rate for Male and age 14-99	AR_A1A00	01972	4	N
Average accession rate for Male and age 19-21	AR_A1A02	01996	4	N
Average accession rate for Male and age 22-24	AR_A1A03	02008	4	N
Average accession rate for Male and age 25-34	AR_A1A04	02020	4	N
Average accession rate for Male and age 35-44	AR_A1A05	02032	4	N
Average accession rate for Male and age 45-54	AR_A1A06	02044	4	N
Average accession rate for Male and age 55-64	AR_A1A07	02056	4	N
Average accession rate for Male and age 65-99	AR_A1A08	02068	4	N
Average employment for Female and age 14-18	EBAR_A2A01	00584	4	N
Average employment for Female and age 14-99	EBAR_A2A00	00572	4	N
Average employment for Female and age 19-21	EBAR_A2A02	00596	4	N
Average employment for Female and age 22-24	EBAR_A2A03	00608	4	N
Average employment for Female and age 25-34	EBAR_A2A04	00620	4	N
Average employment for Female and age 35-44	EBAR_A2A05	00632	4	N
Average employment for Female and age 45-54	EBAR_A2A06	00644	4	N
Average employment for Female and age 55-64	EBAR_A2A07	00656	4	N
Average employment for Female and age 65-99	EBAR_A2A08	00668	4	N
Average employment for Male and Female and age 14-18	EBAR_A0A01	00576	4	N
Average employment for Male and Female and age 14-99	EBAR_A0A00	00564	4	N
Average employment for Male and Female and age 19-21	EBAR_A0A02	00588	4	N
Average employment for Male and Female and age 22-24	EBAR_A0A03	00600	4	N
Average employment for Male and Female and age 25-34	EBAR_A0A04	00612	4	N
Average employment for Male and Female and age 35-44	EBAR_A0A05	00624	4	N
Average employment for Male and Female and age 45-54	EBAR_A0A06	00636	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average employment for Male and Female and age 55-64	EBAR_A0A07	00648	4	N
Average employment for Male and Female and age 65-99	EBAR_A0A08	00660	4	N
Average employment for Male and age 14-18	EBAR_A1A01	00580	4	N
Average employment for Male and age 14-99	EBAR_A1A00	00568	4	N
Average employment for Male and age 19-21	EBAR_A1A02	00592	4	N
Average employment for Male and age 22-24	EBAR_A1A03	00604	4	N
Average employment for Male and age 25-34	EBAR_A1A04	00616	4	N
Average employment for Male and age 35-44	EBAR_A1A05	00628	4	N
Average employment for Male and age 45-54	EBAR_A1A06	00640	4	N
Average employment for Male and age 55-64	EBAR_A1A07	00652	4	N
Average employment for Male and age 65-99	EBAR_A1A08	00664	4	N
Average full-quarter employment for Female and age 14-18	FBAR_A2A01	01232	4	N
Average full-quarter employment for Female and age 14-99	FBAR_A2A00	01220	4	N
Average full-quarter employment for Female and age 19-21	FBAR_A2A02	01244	4	N
Average full-quarter employment for Female and age 22-24	FBAR_A2A03	01256	4	N
Average full-quarter employment for Female and age 25-34	FBAR_A2A04	01268	4	N
Average full-quarter employment for Female and age 35-44	FBAR_A2A05	01280	4	N
Average full-quarter employment for Female and age 45-54	FBAR_A2A06	01292	4	N
Average full-quarter employment for Female and age 55-64	FBAR_A2A07	01304	4	N
Average full-quarter employment for Female and age 65-99	FBAR_A2A08	01316	4	N
Average full-quarter employment for Male and Female and age 14-18	FBAR_A0A01	01224	4	N
Average full-quarter employment for Male and Female and age 14-99	FBAR_A0A00	01212	4	N
Average full-quarter employment for Male and Female and age 19-21	FBAR_A0A02	01236	4	N
Average full-quarter employment for Male and Female and age 22-24	FBAR_A0A03	01248	4	N
Average full-quarter employment for Male and Female and age 25-34	FBAR_A0A04	01260	4	N
Average full-quarter employment for Male and Female and age 35-44	FBAR_A0A05	01272	4	N
Average full-quarter employment for Male and Female and age 45-54	FBAR_A0A06	01284	4	N
Average full-quarter employment for Male and Female and age 55-64	FBAR_A0A07	01296	4	N
Average full-quarter employment for Male and Female and age 65-99	FBAR_A0A08	01308	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average full-quarter employment for Male and age 14-18	FBAR_A1A01	01228	4	N
Average full-quarter employment for Male and age 14-99	FBAR_A1A00	01216	4	N
Average full-quarter employment for Male and age 19-21	FBAR_A1A02	01240	4	N
Average full-quarter employment for Male and age 22-24	FBAR_A1A03	01252	4	N
Average full-quarter employment for Male and age 25-34	FBAR_A1A04	01264	4	N
Average full-quarter employment for Male and age 35-44	FBAR_A1A05	01276	4	N
Average full-quarter employment for Male and age 45-54	FBAR_A1A06	01288	4	N
Average full-quarter employment for Male and age 55-64	FBAR_A1A07	01300	4	N
Average full-quarter employment for Male and age 65-99	FBAR_A1A08	01312	4	N
Average full-quarter employment growth rate for Female and age 14-18	FG_A2A01	01340	4	N
Average full-quarter employment growth rate for Female and age 14-99	FG_A2A00	01328	4	N
Average full-quarter employment growth rate for Female and age 19-21	FG_A2A02	01352	4	N
Average full-quarter employment growth rate for Female and age 22-24	FG_A2A03	01364	4	N
Average full-quarter employment growth rate for Female and age 25-34	FG_A2A04	01376	4	N
Average full-quarter employment growth rate for Female and age 35-44	FG_A2A05	01388	4	N
Average full-quarter employment growth rate for Female and age 45-54	FG_A2A06	01400	4	N
Average full-quarter employment growth rate for Female and age 55-64	FG_A2A07	01412	4	N
Average full-quarter employment growth rate for Female and age 65-99	FG_A2A08	01424	4	N
Average full-quarter employment growth rate for Male and Female and age 14-18	FG_A0A01	01332	4	N
Average full-quarter employment growth rate for Male and Female and age 14-99	FG_A0A00	01320	4	N
Average full-quarter employment growth rate for Male and Female and age 19-21	FG_A0A02	01344	4	N
Average full-quarter employment growth rate for Male and Female and age 22-24	FG_A0A03	01356	4	N
Average full-quarter employment growth rate for Male and Female and age 25-34	FG_A0A04	01368	4	N
Average full-quarter employment growth rate for Male and Female and age 35-44	FG_A0A05	01380	4	N
Average full-quarter employment growth rate for Male and Female and age 45-54	FG_A0A06	01392	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average full-quarter employment growth rate for Male and Female and age 55-64	FG_A0A07	01404	4	N
Average full-quarter employment growth rate for Male and Female and age 65-99	FG_A0A08	01416	4	N
Average full-quarter employment growth rate for Male and age 14-18	FG_A1A01	01336	4	N
Average full-quarter employment growth rate for Male and age 14-99	FG_A1A00	01324	4	N
Average full-quarter employment growth rate for Male and age 19-21	FG_A1A02	01348	4	N
Average full-quarter employment growth rate for Male and age 22-24	FG_A1A03	01360	4	N
Average full-quarter employment growth rate for Male and age 25-34	FG_A1A04	01372	4	N
Average full-quarter employment growth rate for Male and age 35-44	FG_A1A05	01384	4	N
Average full-quarter employment growth rate for Male and age 45-54	FG_A1A06	01396	4	N
Average full-quarter employment growth rate for Male and age 55-64	FG_A1A07	01408	4	N
Average full-quarter employment growth rate for Male and age 65-99	FG_A1A08	01420	4	N
Average full-quarter job creation rate for Female and age 14-18	FJCR_A2A01	01556	4	N
Average full-quarter job creation rate for Female and age 14-99	FJCR_A2A00	01544	4	N
Average full-quarter job creation rate for Female and age 19-21	FJCR_A2A02	01568	4	N
Average full-quarter job creation rate for Female and age 22-24	FJCR_A2A03	01580	4	N
Average full-quarter job creation rate for Female and age 25-34	FJCR_A2A04	01592	4	N
Average full-quarter job creation rate for Female and age 35-44	FJCR_A2A05	01604	4	N
Average full-quarter job creation rate for Female and age 45-54	FJCR_A2A06	01616	4	N
Average full-quarter job creation rate for Female and age 55-64	FJCR_A2A07	01628	4	N
Average full-quarter job creation rate for Female and age 65-99	FJCR_A2A08	01640	4	N
Average full-quarter job creation rate for Male and Female and age 14-18	FJCR_A0A01	01548	4	N
Average full-quarter job creation rate for Male and Female and age 14-99	FJCR_A0A00	01536	4	N
Average full-quarter job creation rate for Male and Female and age 19-21	FJCR_A0A02	01560	4	N
Average full-quarter job creation rate for Male and Female and age 22-24	FJCR_A0A03	01572	4	N
Average full-quarter job creation rate for Male and Female and age 25-34	FJCR_A0A04	01584	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average full-quarter job creation rate for Male and Female and age 35-44	FJCR_A0A05	01596	4	N
Average full-quarter job creation rate for Male and Female and age 45-54	FJCR_A0A06	01608	4	N
Average full-quarter job creation rate for Male and Female and age 55-64	FJCR_A0A07	01620	4	N
Average full-quarter job creation rate for Male and Female and age 65-99	FJCR_A0A08	01632	4	N
Average full-quarter job creation rate for Male and age 14-18	FJCR_A1A01	01552	4	N
Average full-quarter job creation rate for Male and age 14-99	FJCR_A1A00	01540	4	N
Average full-quarter job creation rate for Male and age 19-21	FJCR_A1A02	01564	4	N
Average full-quarter job creation rate for Male and age 22-24	FJCR_A1A03	01576	4	N
Average full-quarter job creation rate for Male and age 25-34	FJCR_A1A04	01588	4	N
Average full-quarter job creation rate for Male and age 35-44	FJCR_A1A05	01600	4	N
Average full-quarter job creation rate for Male and age 45-54	FJCR_A1A06	01612	4	N
Average full-quarter job creation rate for Male and age 55-64	FJCR_A1A07	01624	4	N
Average full-quarter job creation rate for Male and age 65-99	FJCR_A1A08	01636	4	N
Average full-quarter job destruction rate for Female and age 14-18	FJDR_A2A01	01772	4	N
Average full-quarter job destruction rate for Female and age 14-99	FJDR_A2A00	01760	4	N
Average full-quarter job destruction rate for Female and age 19-21	FJDR_A2A02	01784	4	N
Average full-quarter job destruction rate for Female and age 22-24	FJDR_A2A03	01796	4	N
Average full-quarter job destruction rate for Female and age 25-34	FJDR_A2A04	01808	4	N
Average full-quarter job destruction rate for Female and age 35-44	FJDR_A2A05	01820	4	N
Average full-quarter job destruction rate for Female and age 45-54	FJDR_A2A06	01832	4	N
Average full-quarter job destruction rate for Female and age 55-64	FJDR_A2A07	01844	4	N
Average full-quarter job destruction rate for Female and age 65-99	FJDR_A2A08	01856	4	N
Average full-quarter job destruction rate for Male and Female and age 14-18	FJDR_A0A01	01764	4	N
Average full-quarter job destruction rate for Male and Female and age 14-99	FJDR_A0A00	01752	4	N
Average full-quarter job destruction rate for Male and Female and age 19-21	FJDR_A0A02	01776	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average full-quarter job destruction rate for Male and Female and age 22-24	FJDR_A0A03	01788	4	N
Average full-quarter job destruction rate for Male and Female and age 25-34	FJDR_A0A04	01800	4	N
Average full-quarter job destruction rate for Male and Female and age 35-44	FJDR_A0A05	01812	4	N
Average full-quarter job destruction rate for Male and Female and age 45-54	FJDR_A0A06	01824	4	N
Average full-quarter job destruction rate for Male and Female and age 55-64	FJDR_A0A07	01836	4	N
Average full-quarter job destruction rate for Male and Female and age 65-99	FJDR_A0A08	01848	4	N
Average full-quarter job destruction rate for Male and age 14-18	FJDR_A1A01	01768	4	N
Average full-quarter job destruction rate for Male and age 14-99	FJDR_A1A00	01756	4	N
Average full-quarter job destruction rate for Male and age 19-21	FJDR_A1A02	01780	4	N
Average full-quarter job destruction rate for Male and age 22-24	FJDR_A1A03	01792	4	N
Average full-quarter job destruction rate for Male and age 25-34	FJDR_A1A04	01804	4	N
Average full-quarter job destruction rate for Male and age 35-44	FJDR_A1A05	01816	4	N
Average full-quarter job destruction rate for Male and age 45-54	FJDR_A1A06	01828	4	N
Average full-quarter job destruction rate for Male and age 55-64	FJDR_A1A07	01840	4	N
Average full-quarter job destruction rate for Male and age 65-99	FJDR_A1A08	01852	4	N
Average job creation rate for Female and age 14-18	JCR_A2A01	00800	4	N
Average job creation rate for Female and age 14-99	JCR_A2A00	00788	4	N
Average job creation rate for Female and age 19-21	JCR_A2A02	00812	4	N
Average job creation rate for Female and age 22-24	JCR_A2A03	00824	4	N
Average job creation rate for Female and age 25-34	JCR_A2A04	00836	4	N
Average job creation rate for Female and age 35-44	JCR_A2A05	00848	4	N
Average job creation rate for Female and age 45-54	JCR_A2A06	00860	4	N
Average job creation rate for Female and age 55-64	JCR_A2A07	00872	4	N
Average job creation rate for Female and age 65-99	JCR_A2A08	00884	4	N
Average job creation rate for Male and Female and age 14-18	JCR_A0A01	00792	4	N
Average job creation rate for Male and Female and age 14-99	JCR_A0A00	00780	4	N
Average job creation rate for Male and Female and age 19-21	JCR_A0A02	00804	4	N
Average job creation rate for Male and Female and age 22-24	JCR_A0A03	00816	4	N
Average job creation rate for Male and Female and age 25-34	JCR_A0A04	00828	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average job creation rate for Male and Female and age 35-44	JCR_A0A05	00840	4	N
Average job creation rate for Male and Female and age 45-54	JCR_A0A06	00852	4	N
Average job creation rate for Male and Female and age 55-64	JCR_A0A07	00864	4	N
Average job creation rate for Male and Female and age 65-99	JCR_A0A08	00876	4	N
Average job creation rate for Male and age 14-18	JCR_A1A01	00796	4	N
Average job creation rate for Male and age 14-99	JCR_A1A00	00784	4	N
Average job creation rate for Male and age 19-21	JCR_A1A02	00808	4	N
Average job creation rate for Male and age 22-24	JCR_A1A03	00820	4	N
Average job creation rate for Male and age 25-34	JCR_A1A04	00832	4	N
Average job creation rate for Male and age 35-44	JCR_A1A05	00844	4	N
Average job creation rate for Male and age 45-54	JCR_A1A06	00856	4	N
Average job creation rate for Male and age 55-64	JCR_A1A07	00868	4	N
Average job creation rate for Male and age 65-99	JCR_A1A08	00880	4	N
Average job destruction rate for Female and age 14-18	JDR_A2A01	01016	4	N
Average job destruction rate for Female and age 14-99	JDR_A2A00	01004	4	N
Average job destruction rate for Female and age 19-21	JDR_A2A02	01028	4	N
Average job destruction rate for Female and age 22-24	JDR_A2A03	01040	4	N
Average job destruction rate for Female and age 25-34	JDR_A2A04	01052	4	N
Average job destruction rate for Female and age 35-44	JDR_A2A05	01064	4	N
Average job destruction rate for Female and age 45-54	JDR_A2A06	01076	4	N
Average job destruction rate for Female and age 55-64	JDR_A2A07	01088	4	N
Average job destruction rate for Female and age 65-99	JDR_A2A08	01100	4	N
Average job destruction rate for Male and Female and age 14-18	JDR_A0A01	01008	4	N
Average job destruction rate for Male and Female and age 14-99	JDR_A0A00	00996	4	N
Average job destruction rate for Male and Female and age 19-21	JDR_A0A02	01020	4	N
Average job destruction rate for Male and Female and age 22-24	JDR_A0A03	01032	4	N
Average job destruction rate for Male and Female and age 25-34	JDR_A0A04	01044	4	N
Average job destruction rate for Male and Female and age 35-44	JDR_A0A05	01056	4	N
Average job destruction rate for Male and Female and age 45-54	JDR_A0A06	01068	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average job destruction rate for Male and Female and age 55-64	JDR_A0A07	01080	4	N
Average job destruction rate for Male and Female and age 65-99	JDR_A0A08	01092	4	N
Average job destruction rate for Male and age 14-18	JDR_A1A01	01012	4	N
Average job destruction rate for Male and age 14-99	JDR_A1A00	01000	4	N
Average job destruction rate for Male and age 19-21	JDR_A1A02	01024	4	N
Average job destruction rate for Male and age 22-24	JDR_A1A03	01036	4	N
Average job destruction rate for Male and age 25-34	JDR_A1A04	01048	4	N
Average job destruction rate for Male and age 35-44	JDR_A1A05	01060	4	N
Average job destruction rate for Male and age 45-54	JDR_A1A06	01072	4	N
Average job destruction rate for Male and age 55-64	JDR_A1A07	01084	4	N
Average job destruction rate for Male and age 65-99	JDR_A1A08	01096	4	N
Average rate of flow into full-quarter employment for Female and age 14-18	FAR_A2A01	02744	4	N
Average rate of flow into full-quarter employment for Female and age 14-99	FAR_A2A00	02732	4	N
Average rate of flow into full-quarter employment for Female and age 19-21	FAR_A2A02	02756	4	N
Average rate of flow into full-quarter employment for Female and age 22-24	FAR_A2A03	02768	4	N
Average rate of flow into full-quarter employment for Female and age 25-34	FAR_A2A04	02780	4	N
Average rate of flow into full-quarter employment for Female and age 35-44	FAR_A2A05	02792	4	N
Average rate of flow into full-quarter employment for Female and age 45-54	FAR_A2A06	02804	4	N
Average rate of flow into full-quarter employment for Female and age 55-64	FAR_A2A07	02816	4	N
Average rate of flow into full-quarter employment for Female and age 65-99	FAR_A2A08	02828	4	N
Average rate of flow into full-quarter employment for Male and Female and age 14	FAR_A0A01	02736	4	N
Average rate of flow into full-quarter employment for Male and Female and age 14	FAR_A0A00	02724	4	N
Average rate of flow into full-quarter employment for Male and Female and age 19	FAR_A0A02	02748	4	N
Average rate of flow into full-quarter employment for Male and Female and age 22	FAR_A0A03	02760	4	N
Average rate of flow into full-quarter employment for Male and Female and age 25	FAR_A0A04	02772	4	N
Average rate of flow into full-quarter employment for Male and Female and age 35	FAR_A0A05	02784	4	N
Average rate of flow into full-quarter employment for Male and Female and age 45	FAR_A0A06	02796	4	N
Average rate of flow into full-quarter employment for Male and Female and age 55	FAR_A0A07	02808	4	N
Average rate of flow into full-quarter employment for Male and Female and age 65	FAR_A0A08	02820	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average rate of flow into full-quarter employment for Male and age 14-18	FAR_A1A01	02740	4	N
Average rate of flow into full-quarter employment for Male and age 14-99	FAR_A1A00	02728	4	N
Average rate of flow into full-quarter employment for Male and age 19-21	FAR_A1A02	02752	4	N
Average rate of flow into full-quarter employment for Male and age 22-24	FAR_A1A03	02764	4	N
Average rate of flow into full-quarter employment for Male and age 25-34	FAR_A1A04	02776	4	N
Average rate of flow into full-quarter employment for Male and age 35-44	FAR_A1A05	02788	4	N
Average rate of flow into full-quarter employment for Male and age 45-54	FAR_A1A06	02800	4	N
Average rate of flow into full-quarter employment for Male and age 55-64	FAR_A1A07	02812	4	N
Average rate of flow into full-quarter employment for Male and age 65-99	FAR_A1A08	02824	4	N
Average rate of flow out of full-quarter employment for Female and age 14-18	FSR_A2A01	02960	4	N
Average rate of flow out of full-quarter employment for Female and age 14-99	FSR_A2A00	02948	4	N
Average rate of flow out of full-quarter employment for Female and age 19-21	FSR_A2A02	02972	4	N
Average rate of flow out of full-quarter employment for Female and age 22-24	FSR_A2A03	02984	4	N
Average rate of flow out of full-quarter employment for Female and age 25-34	FSR_A2A04	02996	4	N
Average rate of flow out of full-quarter employment for Female and age 35-44	FSR_A2A05	03008	4	N
Average rate of flow out of full-quarter employment for Female and age 45-54	FSR_A2A06	03020	4	N
Average rate of flow out of full-quarter employment for Female and age 55-64	FSR_A2A07	03032	4	N
Average rate of flow out of full-quarter employment for Female and age 65-99	FSR_A2A08	03044	4	N
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A01	02952	4	N
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A00	02940	4	N
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A02	02964	4	N
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A03	02976	4	N
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A04	02988	4	N
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A05	03000	4	N
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A06	03012	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A07	03024	4	N
Average rate of flow out of full-quarter employment for Male and Female and age	FSR_A0A08	03036	4	N
Average rate of flow out of full-quarter employment for Male and age 14-18	FSR_A1A01	02956	4	N
Average rate of flow out of full-quarter employment for Male and age 14-99	FSR_A1A00	02944	4	N
Average rate of flow out of full-quarter employment for Male and age 19-21	FSR_A1A02	02968	4	N
Average rate of flow out of full-quarter employment for Male and age 22-24	FSR_A1A03	02980	4	N
Average rate of flow out of full-quarter employment for Male and age 25-34	FSR_A1A04	02992	4	N
Average rate of flow out of full-quarter employment for Male and age 35-44	FSR_A1A05	03004	4	N
Average rate of flow out of full-quarter employment for Male and age 45-54	FSR_A1A06	03016	4	N
Average rate of flow out of full-quarter employment for Male and age 55-64	FSR_A1A07	03028	4	N
Average rate of flow out of full-quarter employment for Male and age 65-99	FSR_A1A08	03040	4	N
Average separation rate for Female and age 14-18	SR_A2A01	02204	4	N
Average separation rate for Female and age 14-99	SR_A2A00	02192	4	N
Average separation rate for Female and age 19-21	SR_A2A02	02216	4	N
Average separation rate for Female and age 22-24	SR_A2A03	02228	4	N
Average separation rate for Female and age 25-34	SR_A2A04	02240	4	N
Average separation rate for Female and age 35-44	SR_A2A05	02252	4	N
Average separation rate for Female and age 45-54	SR_A2A06	02264	4	N
Average separation rate for Female and age 55-64	SR_A2A07	02276	4	N
Average separation rate for Female and age 65-99	SR_A2A08	02288	4	N
Average separation rate for Male and Female and age 14-18	SR_A0A01	02196	4	N
Average separation rate for Male and Female and age 14-99	SR_A0A00	02184	4	N
Average separation rate for Male and Female and age 19-21	SR_A0A02	02208	4	N
Average separation rate for Male and Female and age 22-24	SR_A0A03	02220	4	N
Average separation rate for Male and Female and age 25-34	SR_A0A04	02232	4	N
Average separation rate for Male and Female and age 35-44	SR_A0A05	02244	4	N
Average separation rate for Male and Female and age 45-54	SR_A0A06	02256	4	N
Average separation rate for Male and Female and age 55-64	SR_A0A07	02268	4	N
Average separation rate for Male and Female and age 65-99	SR_A0A08	02280	4	N
Average separation rate for Male and age 14-18	SR_A1A01	02200	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Average separation rate for Male and age 14-99	SR_A1A00	02188	4	N
Average separation rate for Male and age 19-21	SR_A1A02	02212	4	N
Average separation rate for Male and age 22-24	SR_A1A03	02224	4	N
Average separation rate for Male and age 25-34	SR_A1A04	02236	4	N
Average separation rate for Male and age 35-44	SR_A1A05	02248	4	N
Average separation rate for Male and age 45-54	SR_A1A06	02260	4	N
Average separation rate for Male and age 55-64	SR_A1A07	02272	4	N
Average separation rate for Male and age 65-99	SR_A1A08	02284	4	N
Beginning-of-period employment for Female and age 14-18	B_A2A01	00044	4	N
Beginning-of-period employment for Female and age 14-99	B_A2A00	00032	4	N
Beginning-of-period employment for Female and age 19-21	B_A2A02	00056	4	N
Beginning-of-period employment for Female and age 22-24	B_A2A03	00068	4	N
Beginning-of-period employment for Female and age 25-34	B_A2A04	00080	4	N
Beginning-of-period employment for Female and age 35-44	B_A2A05	00092	4	N
Beginning-of-period employment for Female and age 45-54	B_A2A06	00104	4	N
Beginning-of-period employment for Female and age 55-64	B_A2A07	00116	4	N
Beginning-of-period employment for Female and age 65-99	B_A2A08	00128	4	N
Beginning-of-period employment for Male and Female and age 14-18	B_A0A01	00036	4	N
Beginning-of-period employment for Male and Female and age 14-99	B_A0A00	00024	4	N
Beginning-of-period employment for Male and Female and age 19-21	B_A0A02	00048	4	N
Beginning-of-period employment for Male and Female and age 22-24	B_A0A03	00060	4	N
Beginning-of-period employment for Male and Female and age 25-34	B_A0A04	00072	4	N
Beginning-of-period employment for Male and Female and age 35-44	B_A0A05	00084	4	N
Beginning-of-period employment for Male and Female and age 45-54	B_A0A06	00096	4	N
Beginning-of-period employment for Male and Female and age 55-64	B_A0A07	00108	4	N
Beginning-of-period employment for Male and Female and age 65-99	B_A0A08	00120	4	N
Beginning-of-period employment for Male and age 14-18	B_A1A01	00040	4	N
Beginning-of-period employment for Male and age 14-99	B_A1A00	00028	4	N
Beginning-of-period employment for Male and age 19-21	B_A1A02	00052	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Beginning-of-period employment for Male and age 22-24	B_A1A03	00064	4	N
Beginning-of-period employment for Male and age 25-34	B_A1A04	00076	4	N
Beginning-of-period employment for Male and age 35-44	B_A1A05	00088	4	N
Beginning-of-period employment for Male and age 45-54	B_A1A06	00100	4	N
Beginning-of-period employment for Male and age 55-64	B_A1A07	00112	4	N
Beginning-of-period employment for Male and age 65-99	B_A1A08	00124	4	N
Change in total earnings for accessions for Female and age 14-18	DWA_A2A01	03824	4	N
Change in total earnings for accessions for Female and age 14-99	DWA_A2A00	03812	4	N
Change in total earnings for accessions for Female and age 19-21	DWA_A2A02	03836	4	N
Change in total earnings for accessions for Female and age 22-24	DWA_A2A03	03848	4	N
Change in total earnings for accessions for Female and age 25-34	DWA_A2A04	03860	4	N
Change in total earnings for accessions for Female and age 35-44	DWA_A2A05	03872	4	N
Change in total earnings for accessions for Female and age 45-54	DWA_A2A06	03884	4	N
Change in total earnings for accessions for Female and age 55-64	DWA_A2A07	03896	4	N
Change in total earnings for accessions for Female and age 65-99	DWA_A2A08	03908	4	N
Change in total earnings for accessions for Male and Female and age 14-18	DWA_A0A01	03816	4	N
Change in total earnings for accessions for Male and Female and age 14-99	DWA_A0A00	03804	4	N
Change in total earnings for accessions for Male and Female and age 19-21	DWA_A0A02	03828	4	N
Change in total earnings for accessions for Male and Female and age 22-24	DWA_A0A03	03840	4	N
Change in total earnings for accessions for Male and Female and age 25-34	DWA_A0A04	03852	4	N
Change in total earnings for accessions for Male and Female and age 35-44	DWA_A0A05	03864	4	N
Change in total earnings for accessions for Male and Female and age 45-54	DWA_A0A06	03876	4	N
Change in total earnings for accessions for Male and Female and age 55-64	DWA_A0A07	03888	4	N
Change in total earnings for accessions for Male and Female and age 65-99	DWA_A0A08	03900	4	N
Change in total earnings for accessions for Male and age 14-18	DWA_A1A01	03820	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Change in total earnings for accessions for Male and age 14-99	DWA_A1A00	03808	4	N
Change in total earnings for accessions for Male and age 19-21	DWA_A1A02	03832	4	N
Change in total earnings for accessions for Male and age 22-24	DWA_A1A03	03844	4	N
Change in total earnings for accessions for Male and age 25-34	DWA_A1A04	03856	4	N
Change in total earnings for accessions for Male and age 35-44	DWA_A1A05	03868	4	N
Change in total earnings for accessions for Male and age 45-54	DWA_A1A06	03880	4	N
Change in total earnings for accessions for Male and age 55-64	DWA_A1A07	03892	4	N
Change in total earnings for accessions for Male and age 65-99	DWA_A1A08	03904	4	N
Change in total earnings for full-quarter separations for Female and age 14-18	DWFS_A2A01	04904	4	N
Change in total earnings for full-quarter separations for Female and age 14-99	DWFS_A2A00	04892	4	N
Change in total earnings for full-quarter separations for Female and age 19-21	DWFS_A2A02	04916	4	N
Change in total earnings for full-quarter separations for Female and age 22-24	DWFS_A2A03	04928	4	N
Change in total earnings for full-quarter separations for Female and age 25-34	DWFS_A2A04	04940	4	N
Change in total earnings for full-quarter separations for Female and age 35-44	DWFS_A2A05	04952	4	N
Change in total earnings for full-quarter separations for Female and age 45-54	DWFS_A2A06	04964	4	N
Change in total earnings for full-quarter separations for Female and age 55-64	DWFS_A2A07	04976	4	N
Change in total earnings for full-quarter separations for Female and age 65-99	DWFS_A2A08	04988	4	N
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A01	04896	4	N
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A00	04884	4	N
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A02	04908	4	N
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A03	04920	4	N
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A04	04932	4	N
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A05	04944	4	N
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A06	04956	4	N
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A07	04968	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Change in total earnings for full-quarter separations for Male and Female and ag	DWFS_A0A08	04980	4	N
Change in total earnings for full-quarter separations for Male and age 14-18	DWFS_A1A01	04900	4	N
Change in total earnings for full-quarter separations for Male and age 14-99	DWFS_A1A00	04888	4	N
Change in total earnings for full-quarter separations for Male and age 19-21	DWFS_A1A02	04912	4	N
Change in total earnings for full-quarter separations for Male and age 22-24	DWFS_A1A03	04924	4	N
Change in total earnings for full-quarter separations for Male and age 25-34	DWFS_A1A04	04936	4	N
Change in total earnings for full-quarter separations for Male and age 35-44	DWFS_A1A05	04948	4	N
Change in total earnings for full-quarter separations for Male and age 45-54	DWFS_A1A06	04960	4	N
Change in total earnings for full-quarter separations for Male and age 55-64	DWFS_A1A07	04972	4	N
Change in total earnings for full-quarter separations for Male and age 65-99	DWFS_A1A08	04984	4	N
Change in total earnings for separations for Female and age 14-18	DWS_A2A01	04688	4	N
Change in total earnings for separations for Female and age 14-99	DWS_A2A00	04676	4	N
Change in total earnings for separations for Female and age 19-21	DWS_A2A02	04700	4	N
Change in total earnings for separations for Female and age 22-24	DWS_A2A03	04712	4	N
Change in total earnings for separations for Female and age 25-34	DWS_A2A04	04724	4	N
Change in total earnings for separations for Female and age 35-44	DWS_A2A05	04736	4	N
Change in total earnings for separations for Female and age 45-54	DWS_A2A06	04748	4	N
Change in total earnings for separations for Female and age 55-64	DWS_A2A07	04760	4	N
Change in total earnings for separations for Female and age 65-99	DWS_A2A08	04772	4	N
Change in total earnings for separations for Male and Female and age 14-18	DWS_A0A01	04680	4	N
Change in total earnings for separations for Male and Female and age 14-99	DWS_A0A00	04668	4	N
Change in total earnings for separations for Male and Female and age 19-21	DWS_A0A02	04692	4	N
Change in total earnings for separations for Male and Female and age 22-24	DWS_A0A03	04704	4	N
Change in total earnings for separations for Male and Female and age 25-34	DWS_A0A04	04716	4	N
Change in total earnings for separations for Male and Female and age 35-44	DWS_A0A05	04728	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Change in total earnings for separations for Male and Female and age 45-54	DWS_A0A06	04740	4	N
Change in total earnings for separations for Male and Female and age 55-64	DWS_A0A07	04752	4	N
Change in total earnings for separations for Male and Female and age 65-99	DWS_A0A08	04764	4	N
Change in total earnings for separations for Male and age 14-18	DWS_A1A01	04684	4	N
Change in total earnings for separations for Male and age 14-99	DWS_A1A00	04672	4	N
Change in total earnings for separations for Male and age 19-21	DWS_A1A02	04696	4	N
Change in total earnings for separations for Male and age 22-24	DWS_A1A03	04708	4	N
Change in total earnings for separations for Male and age 25-34	DWS_A1A04	04720	4	N
Change in total earnings for separations for Male and age 35-44	DWS_A1A05	04732	4	N
Change in total earnings for separations for Male and age 45-54	DWS_A1A06	04744	4	N
Change in total earnings for separations for Male and age 55-64	DWS_A1A07	04756	4	N
Change in total earnings for separations for Male and age 65-99	DWS_A1A08	04768	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A01	04148	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A00	04136	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A02	04160	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A03	04172	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A04	04184	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A05	04196	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A06	04208	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A07	04220	4	N
Change in total earnings for transits to full-quarter status for Female and age	DWFA_A2A08	04232	4	N
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A01	04140	4	N
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A00	04128	4	N
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A02	04152	4	N
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A03	04164	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A04	04176	4	N
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A05	04188	4	N
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A06	04200	4	N
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A07	04212	4	N
Change in total earnings for transits to full-quarter status for Male and Female	DWFA_A0A08	04224	4	N
Change in total earnings for transits to full-quarter status for Male and age 14	DWFA_A1A01	04144	4	N
Change in total earnings for transits to full-quarter status for Male and age 14	DWFA_A1A00	04132	4	N
Change in total earnings for transits to full-quarter status for Male and age 19	DWFA_A1A02	04156	4	N
Change in total earnings for transits to full-quarter status for Male and age 22	DWFA_A1A03	04168	4	N
Change in total earnings for transits to full-quarter status for Male and age 25	DWFA_A1A04	04180	4	N
Change in total earnings for transits to full-quarter status for Male and age 35	DWFA_A1A05	04192	4	N
Change in total earnings for transits to full-quarter status for Male and age 45	DWFA_A1A06	04204	4	N
Change in total earnings for transits to full-quarter status for Male and age 55	DWFA_A1A07	04216	4	N
Change in total earnings for transits to full-quarter status for Male and age 65	DWFA_A1A08	04228	4	N
Cleaned GEO FIPS County CCC	LEG_COUNTY	07498	3	A/N
Cleaned OWNER_CODE O	ES_OWNER_CODE	07493	1	A/N
Cleaned SIC Code IIII	ES_SIC	07494	4	A/N
ES202 FIPS State SS	ES_STATE	07526	2	A/N
Employment any time during the period for Female and age 14-18	M_A2A01	00260	4	N
Employment any time during the period for Female and age 14-99	M_A2A00	00248	4	N
Employment any time during the period for Female and age 19-21	M_A2A02	00272	4	N
Employment any time during the period for Female and age 22-24	M_A2A03	00284	4	N
Employment any time during the period for Female and age 25-34	M_A2A04	00296	4	N
Employment any time during the period for Female and age 35-44	M_A2A05	00308	4	N
Employment any time during the period for Female and age 45-54	M_A2A06	00320	4	N
Employment any time during the period for Female and age 55-64	M_A2A07	00332	4	N
Employment any time during the period for Female and age 65-99	M_A2A08	00344	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Employment any time during the period for Male and Female and age 14-18	M_A0A01	00252	4	N
Employment any time during the period for Male and Female and age 14-99	M_A0A00	00240	4	N
Employment any time during the period for Male and Female and age 19-21	M_A0A02	00264	4	N
Employment any time during the period for Male and Female and age 22-24	M_A0A03	00276	4	N
Employment any time during the period for Male and Female and age 25-34	M_A0A04	00288	4	N
Employment any time during the period for Male and Female and age 35-44	M_A0A05	00300	4	N
Employment any time during the period for Male and Female and age 45-54	M_A0A06	00312	4	N
Employment any time during the period for Male and Female and age 55-64	M_A0A07	00324	4	N
Employment any time during the period for Male and Female and age 65-99	M_A0A08	00336	4	N
Employment any time during the period for Male and age 14-18	M_A1A01	00256	4	N
Employment any time during the period for Male and age 14-99	M_A1A00	00244	4	N
Employment any time during the period for Male and age 19-21	M_A1A02	00268	4	N
Employment any time during the period for Male and age 22-24	M_A1A03	00280	4	N
Employment any time during the period for Male and age 25-34	M_A1A04	00292	4	N
Employment any time during the period for Male and age 35-44	M_A1A05	00304	4	N
Employment any time during the period for Male and age 45-54	M_A1A06	00316	4	N
Employment any time during the period for Male and age 55-64	M_A1A07	00328	4	N
Employment any time during the period for Male and age 65-99	M_A1A08	00340	4	N
End-of-period employment for Female and age 14-18	E_A2A01	00152	4	N
End-of-period employment for Female and age 14-99	E_A2A00	00140	4	N
End-of-period employment for Female and age 19-21	E_A2A02	00164	4	N
End-of-period employment for Female and age 22-24	E_A2A03	00176	4	N
End-of-period employment for Female and age 25-34	E_A2A04	00188	4	N
End-of-period employment for Female and age 35-44	E_A2A05	00200	4	N
End-of-period employment for Female and age 45-54	E_A2A06	00212	4	N
End-of-period employment for Female and age 55-64	E_A2A07	00224	4	N
End-of-period employment for Female and age 65-99	E_A2A08	00236	4	N
End-of-period employment for Male and Female and age 14-18	E_A0A01	00144	4	N
End-of-period employment for Male and Female and age 14-99	E_A0A00	00132	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
End-of-period employment for Male and Female and age 19-21	E_A0A02	00156	4	N
End-of-period employment for Male and Female and age 22-24	E_A0A03	00168	4	N
End-of-period employment for Male and Female and age 25-34	E_A0A04	00180	4	N
End-of-period employment for Male and Female and age 35-44	E_A0A05	00192	4	N
End-of-period employment for Male and Female and age 45-54	E_A0A06	00204	4	N
End-of-period employment for Male and Female and age 55-64	E_A0A07	00216	4	N
End-of-period employment for Male and Female and age 65-99	E_A0A08	00228	4	N
End-of-period employment for Male and age 14-18	E_A1A01	00148	4	N
End-of-period employment for Male and age 14-99	E_A1A00	00136	4	N
End-of-period employment for Male and age 19-21	E_A1A02	00160	4	N
End-of-period employment for Male and age 22-24	E_A1A03	00172	4	N
End-of-period employment for Male and age 25-34	E_A1A04	00184	4	N
End-of-period employment for Male and age 35-44	E_A1A05	00196	4	N
End-of-period employment for Male and age 45-54	E_A1A06	00208	4	N
End-of-period employment for Male and age 55-64	E_A1A07	00220	4	N
End-of-period employment for Male and age 65-99	E_A1A08	00232	4	N
Final 2002 NAICS Code NNNNNN	ES_NAICS_FNL2002	07528	6	A/N
Flow into consecutive quarter employment for Female and age 14-18	CA_A2A01	03068	4	N
Flow into consecutive quarter employment for Female and age 14-99	CA_A2A00	03056	4	N
Flow into consecutive quarter employment for Female and age 19-21	CA_A2A02	03080	4	N
Flow into consecutive quarter employment for Female and age 22-24	CA_A2A03	03092	4	N
Flow into consecutive quarter employment for Female and age 25-34	CA_A2A04	03104	4	N
Flow into consecutive quarter employment for Female and age 35-44	CA_A2A05	03116	4	N
Flow into consecutive quarter employment for Female and age 45-54	CA_A2A06	03128	4	N
Flow into consecutive quarter employment for Female and age 55-64	CA_A2A07	03140	4	N
Flow into consecutive quarter employment for Female and age 65-99	CA_A2A08	03152	4	N
Flow into consecutive quarter employment for Male and Female and age 14-18	CA_A0A01	03060	4	N
Flow into consecutive quarter employment for Male and Female and age 14-99	CA_A0A00	03048	4	N
Flow into consecutive quarter employment for Male and Female and age 19-21	CA_A0A02	03072	4	N
Flow into consecutive quarter employment for Male and Female and age 22-24	CA_A0A03	03084	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Flow into consecutive quarter employment for Male and Female and age 25-34	CA_A0A04	03096	4	N
Flow into consecutive quarter employment for Male and Female and age 35-44	CA_A0A05	03108	4	N
Flow into consecutive quarter employment for Male and Female and age 45-54	CA_A0A06	03120	4	N
Flow into consecutive quarter employment for Male and Female and age 55-64	CA_A0A07	03132	4	N
Flow into consecutive quarter employment for Male and Female and age 65-99	CA_A0A08	03144	4	N
Flow into consecutive quarter employment for Male and age 14-18	CA_A1A01	03064	4	N
Flow into consecutive quarter employment for Male and age 14-99	CA_A1A00	03052	4	N
Flow into consecutive quarter employment for Male and age 19-21	CA_A1A02	03076	4	N
Flow into consecutive quarter employment for Male and age 22-24	CA_A1A03	03088	4	N
Flow into consecutive quarter employment for Male and age 25-34	CA_A1A04	03100	4	N
Flow into consecutive quarter employment for Male and age 35-44	CA_A1A05	03112	4	N
Flow into consecutive quarter employment for Male and age 45-54	CA_A1A06	03124	4	N
Flow into consecutive quarter employment for Male and age 55-64	CA_A1A07	03136	4	N
Flow into consecutive quarter employment for Male and age 65-99	CA_A1A08	03148	4	N
Flow into full-quarter employment for Female and age 14-18	FA_A2A01	02636	4	N
Flow into full-quarter employment for Female and age 14-99	FA_A2A00	02624	4	N
Flow into full-quarter employment for Female and age 19-21	FA_A2A02	02648	4	N
Flow into full-quarter employment for Female and age 22-24	FA_A2A03	02660	4	N
Flow into full-quarter employment for Female and age 25-34	FA_A2A04	02672	4	N
Flow into full-quarter employment for Female and age 35-44	FA_A2A05	02684	4	N
Flow into full-quarter employment for Female and age 45-54	FA_A2A06	02696	4	N
Flow into full-quarter employment for Female and age 55-64	FA_A2A07	02708	4	N
Flow into full-quarter employment for Female and age 65-99	FA_A2A08	02720	4	N
Flow into full-quarter employment for Male and Female and age 14-18	FA_A0A01	02628	4	N
Flow into full-quarter employment for Male and Female and age 14-99	FA_A0A00	02616	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Flow into full-quarter employment for Male and Female and age 19-21	FA_A0A02	02640	4	N
Flow into full-quarter employment for Male and Female and age 22-24	FA_A0A03	02652	4	N
Flow into full-quarter employment for Male and Female and age 25-34	FA_A0A04	02664	4	N
Flow into full-quarter employment for Male and Female and age 35-44	FA_A0A05	02676	4	N
Flow into full-quarter employment for Male and Female and age 45-54	FA_A0A06	02688	4	N
Flow into full-quarter employment for Male and Female and age 55-64	FA_A0A07	02700	4	N
Flow into full-quarter employment for Male and Female and age 65-99	FA_A0A08	02712	4	N
Flow into full-quarter employment for Male and age 14-18	FA_A1A01	02632	4	N
Flow into full-quarter employment for Male and age 14-99	FA_A1A00	02620	4	N
Flow into full-quarter employment for Male and age 19-21	FA_A1A02	02644	4	N
Flow into full-quarter employment for Male and age 22-24	FA_A1A03	02656	4	N
Flow into full-quarter employment for Male and age 25-34	FA_A1A04	02668	4	N
Flow into full-quarter employment for Male and age 35-44	FA_A1A05	02680	4	N
Flow into full-quarter employment for Male and age 45-54	FA_A1A06	02692	4	N
Flow into full-quarter employment for Male and age 55-64	FA_A1A07	02704	4	N
Flow into full-quarter employment for Male and age 65-99	FA_A1A08	02716	4	N
Flow out of consecutive quarter employment for Female and age 14-18	CS_A2A01	03176	4	N
Flow out of consecutive quarter employment for Female and age 14-99	CS_A2A00	03164	4	N
Flow out of consecutive quarter employment for Female and age 19-21	CS_A2A02	03188	4	N
Flow out of consecutive quarter employment for Female and age 22-24	CS_A2A03	03200	4	N
Flow out of consecutive quarter employment for Female and age 25-34	CS_A2A04	03212	4	N
Flow out of consecutive quarter employment for Female and age 35-44	CS_A2A05	03224	4	N
Flow out of consecutive quarter employment for Female and age 45-54	CS_A2A06	03236	4	N
Flow out of consecutive quarter employment for Female and age 55-64	CS_A2A07	03248	4	N
Flow out of consecutive quarter employment for Female and age 65-99	CS_A2A08	03260	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Flow out of consecutive quarter employment for Male and Female and age 14-18	CS_A0A01	03168	4	N
Flow out of consecutive quarter employment for Male and Female and age 14-99	CS_A0A00	03156	4	N
Flow out of consecutive quarter employment for Male and Female and age 19-21	CS_A0A02	03180	4	N
Flow out of consecutive quarter employment for Male and Female and age 22-24	CS_A0A03	03192	4	N
Flow out of consecutive quarter employment for Male and Female and age 25-34	CS_A0A04	03204	4	N
Flow out of consecutive quarter employment for Male and Female and age 35-44	CS_A0A05	03216	4	N
Flow out of consecutive quarter employment for Male and Female and age 45-54	CS_A0A06	03228	4	N
Flow out of consecutive quarter employment for Male and Female and age 55-64	CS_A0A07	03240	4	N
Flow out of consecutive quarter employment for Male and Female and age 65-99	CS_A0A08	03252	4	N
Flow out of consecutive quarter employment for Male and age 14-18	CS_A1A01	03172	4	N
Flow out of consecutive quarter employment for Male and age 14-99	CS_A1A00	03160	4	N
Flow out of consecutive quarter employment for Male and age 19-21	CS_A1A02	03184	4	N
Flow out of consecutive quarter employment for Male and age 22-24	CS_A1A03	03196	4	N
Flow out of consecutive quarter employment for Male and age 25-34	CS_A1A04	03208	4	N
Flow out of consecutive quarter employment for Male and age 35-44	CS_A1A05	03220	4	N
Flow out of consecutive quarter employment for Male and age 45-54	CS_A1A06	03232	4	N
Flow out of consecutive quarter employment for Male and age 55-64	CS_A1A07	03244	4	N
Flow out of consecutive quarter employment for Male and age 65-99	CS_A1A08	03256	4	N
Flow out of full-quarter employment for Female and age 14-18	FS_A2A01	02852	4	N
Flow out of full-quarter employment for Female and age 14-99	FS_A2A00	02840	4	N
Flow out of full-quarter employment for Female and age 19-21	FS_A2A02	02864	4	N
Flow out of full-quarter employment for Female and age 22-24	FS_A2A03	02876	4	N
Flow out of full-quarter employment for Female and age 25-34	FS_A2A04	02888	4	N
Flow out of full-quarter employment for Female and age 35-44	FS_A2A05	02900	4	N
Flow out of full-quarter employment for Female and age 45-54	FS_A2A06	02912	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Flow out of full-quarter employment for Female and age 55-64	FS_A2A07	02924	4	N
Flow out of full-quarter employment for Female and age 65-99	FS_A2A08	02936	4	N
Flow out of full-quarter employment for Male and Female and age 14-18	FS_A0A01	02844	4	N
Flow out of full-quarter employment for Male and Female and age 14-99	FS_A0A00	02832	4	N
Flow out of full-quarter employment for Male and Female and age 19-21	FS_A0A02	02856	4	N
Flow out of full-quarter employment for Male and Female and age 22-24	FS_A0A03	02868	4	N
Flow out of full-quarter employment for Male and Female and age 25-34	FS_A0A04	02880	4	N
Flow out of full-quarter employment for Male and Female and age 35-44	FS_A0A05	02892	4	N
Flow out of full-quarter employment for Male and Female and age 45-54	FS_A0A06	02904	4	N
Flow out of full-quarter employment for Male and Female and age 55-64	FS_A0A07	02916	4	N
Flow out of full-quarter employment for Male and Female and age 65-99	FS_A0A08	02928	4	N
Flow out of full-quarter employment for Male and age 14-18	FS_A1A01	02848	4	N
Flow out of full-quarter employment for Male and age 14-99	FS_A1A00	02836	4	N
Flow out of full-quarter employment for Male and age 19-21	FS_A1A02	02860	4	N
Flow out of full-quarter employment for Male and age 22-24	FS_A1A03	02872	4	N
Flow out of full-quarter employment for Male and age 25-34	FS_A1A04	02884	4	N
Flow out of full-quarter employment for Male and age 35-44	FS_A1A05	02896	4	N
Flow out of full-quarter employment for Male and age 45-54	FS_A1A06	02908	4	N
Flow out of full-quarter employment for Male and age 55-64	FS_A1A07	02920	4	N
Flow out of full-quarter employment for Male and age 65-99	FS_A1A08	02932	4	N
Full-quarter employment for Female and age 14-18	F_A2A01	00368	4	N
Full-quarter employment for Female and age 14-99	F_A2A00	00356	4	N
Full-quarter employment for Female and age 19-21	F_A2A02	00380	4	N
Full-quarter employment for Female and age 22-24	F_A2A03	00392	4	N
Full-quarter employment for Female and age 25-34	F_A2A04	00404	4	N
Full-quarter employment for Female and age 35-44	F_A2A05	00416	4	N
Full-quarter employment for Female and age 45-54	F_A2A06	00428	4	N
Full-quarter employment for Female and age 55-64	F_A2A07	00440	4	N
Full-quarter employment for Female and age 65-99	F_A2A08	00452	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Full-quarter employment for Male and Female and age 14-18	F_A0A01	00360	4	N
Full-quarter employment for Male and Female and age 14-99	F_A0A00	00348	4	N
Full-quarter employment for Male and Female and age 19-21	F_A0A02	00372	4	N
Full-quarter employment for Male and Female and age 22-24	F_A0A03	00384	4	N
Full-quarter employment for Male and Female and age 25-34	F_A0A04	00396	4	N
Full-quarter employment for Male and Female and age 35-44	F_A0A05	00408	4	N
Full-quarter employment for Male and Female and age 45-54	F_A0A06	00420	4	N
Full-quarter employment for Male and Female and age 55-64	F_A0A07	00432	4	N
Full-quarter employment for Male and Female and age 65-99	F_A0A08	00444	4	N
Full-quarter employment for Male and age 14-18	F_A1A01	00364	4	N
Full-quarter employment for Male and age 14-99	F_A1A00	00352	4	N
Full-quarter employment for Male and age 19-21	F_A1A02	00376	4	N
Full-quarter employment for Male and age 22-24	F_A1A03	00388	4	N
Full-quarter employment for Male and age 25-34	F_A1A04	00400	4	N
Full-quarter employment for Male and age 35-44	F_A1A05	00412	4	N
Full-quarter employment for Male and age 45-54	F_A1A06	00424	4	N
Full-quarter employment for Male and age 55-64	F_A1A07	00436	4	N
Full-quarter employment for Male and age 65-99	F_A1A08	00448	4	N
Full-quarter job creation for Female and age 14-18	FJC_A2A01	01448	4	N
Full-quarter job creation for Female and age 14-99	FJC_A2A00	01436	4	N
Full-quarter job creation for Female and age 19-21	FJC_A2A02	01460	4	N
Full-quarter job creation for Female and age 22-24	FJC_A2A03	01472	4	N
Full-quarter job creation for Female and age 25-34	FJC_A2A04	01484	4	N
Full-quarter job creation for Female and age 35-44	FJC_A2A05	01496	4	N
Full-quarter job creation for Female and age 45-54	FJC_A2A06	01508	4	N
Full-quarter job creation for Female and age 55-64	FJC_A2A07	01520	4	N
Full-quarter job creation for Female and age 65-99	FJC_A2A08	01532	4	N
Full-quarter job creation for Male and Female and age 14-18	FJC_A0A01	01440	4	N
Full-quarter job creation for Male and Female and age 14-99	FJC_A0A00	01428	4	N
Full-quarter job creation for Male and Female and age 19-21	FJC_A0A02	01452	4	N
Full-quarter job creation for Male and Female and age 22-24	FJC_A0A03	01464	4	N
Full-quarter job creation for Male and Female and age 25-34	FJC_A0A04	01476	4	N
Full-quarter job creation for Male and Female and age 35-44	FJC_A0A05	01488	4	N
Full-quarter job creation for Male and Female and age 45-54	FJC_A0A06	01500	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Full-quarter job creation for Male and Female and age 55-64	FJC_A0A07	01512	4	N
Full-quarter job creation for Male and Female and age 65-99	FJC_A0A08	01524	4	N
Full-quarter job creation for Male and age 14-18	FJC_A1A01	01444	4	N
Full-quarter job creation for Male and age 14-99	FJC_A1A00	01432	4	N
Full-quarter job creation for Male and age 19-21	FJC_A1A02	01456	4	N
Full-quarter job creation for Male and age 22-24	FJC_A1A03	01468	4	N
Full-quarter job creation for Male and age 25-34	FJC_A1A04	01480	4	N
Full-quarter job creation for Male and age 35-44	FJC_A1A05	01492	4	N
Full-quarter job creation for Male and age 45-54	FJC_A1A06	01504	4	N
Full-quarter job creation for Male and age 55-64	FJC_A1A07	01516	4	N
Full-quarter job creation for Male and age 65-99	FJC_A1A08	01528	4	N
Full-quarter job destruction for Female and age 14-18	FJD_A2A01	01664	4	N
Full-quarter job destruction for Female and age 14-99	FJD_A2A00	01652	4	N
Full-quarter job destruction for Female and age 19-21	FJD_A2A02	01676	4	N
Full-quarter job destruction for Female and age 22-24	FJD_A2A03	01688	4	N
Full-quarter job destruction for Female and age 25-34	FJD_A2A04	01700	4	N
Full-quarter job destruction for Female and age 35-44	FJD_A2A05	01712	4	N
Full-quarter job destruction for Female and age 45-54	FJD_A2A06	01724	4	N
Full-quarter job destruction for Female and age 55-64	FJD_A2A07	01736	4	N
Full-quarter job destruction for Female and age 65-99	FJD_A2A08	01748	4	N
Full-quarter job destruction for Male and Female and age 14-18	FJD_A0A01	01656	4	N
Full-quarter job destruction for Male and Female and age 14-99	FJD_A0A00	01644	4	N
Full-quarter job destruction for Male and Female and age 19-21	FJD_A0A02	01668	4	N
Full-quarter job destruction for Male and Female and age 22-24	FJD_A0A03	01680	4	N
Full-quarter job destruction for Male and Female and age 25-34	FJD_A0A04	01692	4	N
Full-quarter job destruction for Male and Female and age 35-44	FJD_A0A05	01704	4	N
Full-quarter job destruction for Male and Female and age 45-54	FJD_A0A06	01716	4	N
Full-quarter job destruction for Male and Female and age 55-64	FJD_A0A07	01728	4	N
Full-quarter job destruction for Male and Female and age 65-99	FJD_A0A08	01740	4	N
Full-quarter job destruction for Male and age 14-18	FJD_A1A01	01660	4	N
Full-quarter job destruction for Male and age 14-99	FJD_A1A00	01648	4	N
Full-quarter job destruction for Male and age 19-21	FJD_A1A02	01672	4	N
Full-quarter job destruction for Male and age 22-24	FJD_A1A03	01684	4	N
Full-quarter job destruction for Male and age 25-34	FJD_A1A04	01696	4	N
Full-quarter job destruction for Male and age 35-44	FJD_A1A05	01708	4	N
Full-quarter job destruction for Male and age 45-54	FJD_A1A06	01720	4	N
Full-quarter job destruction for Male and age 55-64	FJD_A1A07	01732	4	N
Full-quarter job destruction for Male and age 65-99	FJD_A1A08	01744	4	N
Full-quarter new hires for Female and age 14-18	H3_A2A01	02420	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Full-quarter new hires for Female and age 14-99	H3_A2A00	02408	4	N
Full-quarter new hires for Female and age 19-21	H3_A2A02	02432	4	N
Full-quarter new hires for Female and age 22-24	H3_A2A03	02444	4	N
Full-quarter new hires for Female and age 25-34	H3_A2A04	02456	4	N
Full-quarter new hires for Female and age 35-44	H3_A2A05	02468	4	N
Full-quarter new hires for Female and age 45-54	H3_A2A06	02480	4	N
Full-quarter new hires for Female and age 55-64	H3_A2A07	02492	4	N
Full-quarter new hires for Female and age 65-99	H3_A2A08	02504	4	N
Full-quarter new hires for Male and Female and age 14-18	H3_A0A01	02412	4	N
Full-quarter new hires for Male and Female and age 14-99	H3_A0A00	02400	4	N
Full-quarter new hires for Male and Female and age 19-21	H3_A0A02	02424	4	N
Full-quarter new hires for Male and Female and age 22-24	H3_A0A03	02436	4	N
Full-quarter new hires for Male and Female and age 25-34	H3_A0A04	02448	4	N
Full-quarter new hires for Male and Female and age 35-44	H3_A0A05	02460	4	N
Full-quarter new hires for Male and Female and age 45-54	H3_A0A06	02472	4	N
Full-quarter new hires for Male and Female and age 55-64	H3_A0A07	02484	4	N
Full-quarter new hires for Male and Female and age 65-99	H3_A0A08	02496	4	N
Full-quarter new hires for Male and age 14-18	H3_A1A01	02416	4	N
Full-quarter new hires for Male and age 14-99	H3_A1A00	02404	4	N
Full-quarter new hires for Male and age 19-21	H3_A1A02	02428	4	N
Full-quarter new hires for Male and age 22-24	H3_A1A03	02440	4	N
Full-quarter new hires for Male and age 25-34	H3_A1A04	02452	4	N
Full-quarter new hires for Male and age 35-44	H3_A1A05	02464	4	N
Full-quarter new hires for Male and age 45-54	H3_A1A06	02476	4	N
Full-quarter new hires for Male and age 55-64	H3_A1A07	02488	4	N
Full-quarter new hires for Male and age 65-99	H3_A1A08	02500	4	N
Job creation for Female and age 14-18	JC_A2A01	00692	4	N
Job creation for Female and age 14-99	JC_A2A00	00680	4	N
Job creation for Female and age 19-21	JC_A2A02	00704	4	N
Job creation for Female and age 22-24	JC_A2A03	00716	4	N
Job creation for Female and age 25-34	JC_A2A04	00728	4	N
Job creation for Female and age 35-44	JC_A2A05	00740	4	N
Job creation for Female and age 45-54	JC_A2A06	00752	4	N
Job creation for Female and age 55-64	JC_A2A07	00764	4	N
Job creation for Female and age 65-99	JC_A2A08	00776	4	N
Job creation for Male and Female and age 14-18	JC_A0A01	00684	4	N
Job creation for Male and Female and age 14-99	JC_A0A00	00672	4	N
Job creation for Male and Female and age 19-21	JC_A0A02	00696	4	N
Job creation for Male and Female and age 22-24	JC_A0A03	00708	4	N
Job creation for Male and Female and age 25-34	JC_A0A04	00720	4	N
Job creation for Male and Female and age 35-44	JC_A0A05	00732	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Job creation for Male and Female and age 45-54	JC_A0A06	00744	4	N
Job creation for Male and Female and age 55-64	JC_A0A07	00756	4	N
Job creation for Male and Female and age 65-99	JC_A0A08	00768	4	N
Job creation for Male and age 14-18	JC_A1A01	00688	4	N
Job creation for Male and age 14-99	JC_A1A00	00676	4	N
Job creation for Male and age 19-21	JC_A1A02	00700	4	N
Job creation for Male and age 22-24	JC_A1A03	00712	4	N
Job creation for Male and age 25-34	JC_A1A04	00724	4	N
Job creation for Male and age 35-44	JC_A1A05	00736	4	N
Job creation for Male and age 45-54	JC_A1A06	00748	4	N
Job creation for Male and age 55-64	JC_A1A07	00760	4	N
Job creation for Male and age 65-99	JC_A1A08	00772	4	N
Job destruction for Female and age 14-18	JD_A2A01	00908	4	N
Job destruction for Female and age 14-99	JD_A2A00	00896	4	N
Job destruction for Female and age 19-21	JD_A2A02	00920	4	N
Job destruction for Female and age 22-24	JD_A2A03	00932	4	N
Job destruction for Female and age 25-34	JD_A2A04	00944	4	N
Job destruction for Female and age 35-44	JD_A2A05	00956	4	N
Job destruction for Female and age 45-54	JD_A2A06	00968	4	N
Job destruction for Female and age 55-64	JD_A2A07	00980	4	N
Job destruction for Female and age 65-99	JD_A2A08	00992	4	N
Job destruction for Male and Female and age 14-18	JD_A0A01	00900	4	N
Job destruction for Male and Female and age 14-99	JD_A0A00	00888	4	N
Job destruction for Male and Female and age 19-21	JD_A0A02	00912	4	N
Job destruction for Male and Female and age 22-24	JD_A0A03	00924	4	N
Job destruction for Male and Female and age 25-34	JD_A0A04	00936	4	N
Job destruction for Male and Female and age 35-44	JD_A0A05	00948	4	N
Job destruction for Male and Female and age 45-54	JD_A0A06	00960	4	N
Job destruction for Male and Female and age 55-64	JD_A0A07	00972	4	N
Job destruction for Male and Female and age 65-99	JD_A0A08	00984	4	N
Job destruction for Male and age 14-18	JD_A1A01	00904	4	N
Job destruction for Male and age 14-99	JD_A1A00	00892	4	N
Job destruction for Male and age 19-21	JD_A1A02	00916	4	N
Job destruction for Male and age 22-24	JD_A1A03	00928	4	N
Job destruction for Male and age 25-34	JD_A1A04	00940	4	N
Job destruction for Male and age 35-44	JD_A1A05	00952	4	N
Job destruction for Male and age 45-54	JD_A1A06	00964	4	N
Job destruction for Male and age 55-64	JD_A1A07	00976	4	N
Job destruction for Male and age 65-99	JD_A1A08	00988	4	N
MSAPMSA metro area code, mmmmmmmm	LEG_MSAPMSA	07501	8	A/N
Net change in full-quarter employment for Female and age 14-18	FJF_A2A01	01124	4	N
Net change in full-quarter employment for Female and age 14-99	FJF_A2A00	01112	4	N
Net change in full-quarter employment for Female and age 19-21	FJF_A2A02	01136	4	N
Net change in full-quarter employment for Female and age 22-24	FJF_A2A03	01148	4	N
Net change in full-quarter employment for Female and age 25-34	FJF_A2A04	01160	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Net change in full-quarter employment for Female and age 35-44	FJF_A2A05	01172	4	N
Net change in full-quarter employment for Female and age 45-54	FJF_A2A06	01184	4	N
Net change in full-quarter employment for Female and age 55-64	FJF_A2A07	01196	4	N
Net change in full-quarter employment for Female and age 65-99	FJF_A2A08	01208	4	N
Net change in full-quarter employment for Male and Female and age 14-18	FJF_A0A01	01116	4	N
Net change in full-quarter employment for Male and Female and age 14-99	FJF_A0A00	01104	4	N
Net change in full-quarter employment for Male and Female and age 19-21	FJF_A0A02	01128	4	N
Net change in full-quarter employment for Male and Female and age 22-24	FJF_A0A03	01140	4	N
Net change in full-quarter employment for Male and Female and age 25-34	FJF_A0A04	01152	4	N
Net change in full-quarter employment for Male and Female and age 35-44	FJF_A0A05	01164	4	N
Net change in full-quarter employment for Male and Female and age 45-54	FJF_A0A06	01176	4	N
Net change in full-quarter employment for Male and Female and age 55-64	FJF_A0A07	01188	4	N
Net change in full-quarter employment for Male and Female and age 65-99	FJF_A0A08	01200	4	N
Net change in full-quarter employment for Male and age 14-18	FJF_A1A01	01120	4	N
Net change in full-quarter employment for Male and age 14-99	FJF_A1A00	01108	4	N
Net change in full-quarter employment for Male and age 19-21	FJF_A1A02	01132	4	N
Net change in full-quarter employment for Male and age 22-24	FJF_A1A03	01144	4	N
Net change in full-quarter employment for Male and age 25-34	FJF_A1A04	01156	4	N
Net change in full-quarter employment for Male and age 35-44	FJF_A1A05	01168	4	N
Net change in full-quarter employment for Male and age 45-54	FJF_A1A06	01180	4	N
Net change in full-quarter employment for Male and age 55-64	FJF_A1A07	01192	4	N
Net change in full-quarter employment for Male and age 65-99	FJF_A1A08	01204	4	N
Net job flows for Female and age 14-18	JF_A2A01	00476	4	N
Net job flows for Female and age 14-99	JF_A2A00	00464	4	N
Net job flows for Female and age 19-21	JF_A2A02	00488	4	N
Net job flows for Female and age 22-24	JF_A2A03	00500	4	N
Net job flows for Female and age 25-34	JF_A2A04	00512	4	N
Net job flows for Female and age 35-44	JF_A2A05	00524	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Net job flows for Female and age 45-54	JF_A2A06	00536	4	N
Net job flows for Female and age 55-64	JF_A2A07	00548	4	N
Net job flows for Female and age 65-99	JF_A2A08	00560	4	N
Net job flows for Male and Female and age 14-18	JF_A0A01	00468	4	N
Net job flows for Male and Female and age 14-99	JF_A0A00	00456	4	N
Net job flows for Male and Female and age 19-21	JF_A0A02	00480	4	N
Net job flows for Male and Female and age 22-24	JF_A0A03	00492	4	N
Net job flows for Male and Female and age 25-34	JF_A0A04	00504	4	N
Net job flows for Male and Female and age 35-44	JF_A0A05	00516	4	N
Net job flows for Male and Female and age 45-54	JF_A0A06	00528	4	N
Net job flows for Male and Female and age 55-64	JF_A0A07	00540	4	N
Net job flows for Male and Female and age 65-99	JF_A0A08	00552	4	N
Net job flows for Male and age 14-18	JF_A1A01	00472	4	N
Net job flows for Male and age 14-99	JF_A1A00	00460	4	N
Net job flows for Male and age 19-21	JF_A1A02	00484	4	N
Net job flows for Male and age 22-24	JF_A1A03	00496	4	N
Net job flows for Male and age 25-34	JF_A1A04	00508	4	N
Net job flows for Male and age 35-44	JF_A1A05	00520	4	N
Net job flows for Male and age 45-54	JF_A1A06	00532	4	N
Net job flows for Male and age 55-64	JF_A1A07	00544	4	N
Net job flows for Male and age 65-99	JF_A1A08	00556	4	N
New hires for Female and age 14-18	H_A2A01	02312	4	N
New hires for Female and age 14-99	H_A2A00	02300	4	N
New hires for Female and age 19-21	H_A2A02	02324	4	N
New hires for Female and age 22-24	H_A2A03	02336	4	N
New hires for Female and age 25-34	H_A2A04	02348	4	N
New hires for Female and age 35-44	H_A2A05	02360	4	N
New hires for Female and age 45-54	H_A2A06	02372	4	N
New hires for Female and age 55-64	H_A2A07	02384	4	N
New hires for Female and age 65-99	H_A2A08	02396	4	N
New hires for Male and Female and age 14-18	H_A0A01	02304	4	N
New hires for Male and Female and age 14-99	H_A0A00	02292	4	N
New hires for Male and Female and age 19-21	H_A0A02	02316	4	N
New hires for Male and Female and age 22-24	H_A0A03	02328	4	N
New hires for Male and Female and age 25-34	H_A0A04	02340	4	N
New hires for Male and Female and age 35-44	H_A0A05	02352	4	N
New hires for Male and Female and age 45-54	H_A0A06	02364	4	N
New hires for Male and Female and age 55-64	H_A0A07	02376	4	N
New hires for Male and Female and age 65-99	H_A0A08	02388	4	N
New hires for Male and age 14-18	H_A1A01	02308	4	N
New hires for Male and age 14-99	H_A1A00	02296	4	N
New hires for Male and age 19-21	H_A1A02	02320	4	N
New hires for Male and age 22-24	H_A1A03	02332	4	N
New hires for Male and age 25-34	H_A1A04	02344	4	N
New hires for Male and age 35-44	H_A1A05	02356	4	N
New hires for Male and age 45-54	H_A1A06	02368	4	N
New hires for Male and age 55-64	H_A1A07	02380	4	N
New hires for Male and age 65-99	H_A1A08	02392	4	N
QWI weight correction factor	QWI_WCF	00008	8	N
Quarter QQ	QUARTER	07537	3	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Recalls for Female and age 14-18	R_A2A01	02528	4	N
Recalls for Female and age 14-99	R_A2A00	02516	4	N
Recalls for Female and age 19-21	R_A2A02	02540	4	N
Recalls for Female and age 22-24	R_A2A03	02552	4	N
Recalls for Female and age 25-34	R_A2A04	02564	4	N
Recalls for Female and age 35-44	R_A2A05	02576	4	N
Recalls for Female and age 45-54	R_A2A06	02588	4	N
Recalls for Female and age 55-64	R_A2A07	02600	4	N
Recalls for Female and age 65-99	R_A2A08	02612	4	N
Recalls for Male and Female and age 14-18	R_A0A01	02520	4	N
Recalls for Male and Female and age 14-99	R_A0A00	02508	4	N
Recalls for Male and Female and age 19-21	R_A0A02	02532	4	N
Recalls for Male and Female and age 22-24	R_A0A03	02544	4	N
Recalls for Male and Female and age 25-34	R_A0A04	02556	4	N
Recalls for Male and Female and age 35-44	R_A0A05	02568	4	N
Recalls for Male and Female and age 45-54	R_A0A06	02580	4	N
Recalls for Male and Female and age 55-64	R_A0A07	02592	4	N
Recalls for Male and Female and age 65-99	R_A0A08	02604	4	N
Recalls for Male and age 14-18	R_A1A01	02524	4	N
Recalls for Male and age 14-99	R_A1A00	02512	4	N
Recalls for Male and age 19-21	R_A1A02	02536	4	N
Recalls for Male and age 22-24	R_A1A03	02548	4	N
Recalls for Male and age 25-34	R_A1A04	02560	4	N
Recalls for Male and age 35-44	R_A1A05	02572	4	N
Recalls for Male and age 45-54	R_A1A06	02584	4	N
Recalls for Male and age 55-64	R_A1A07	02596	4	N
Recalls for Male and age 65-99	R_A1A08	02608	4	N
Separations for Female and age 14-18	S_A2A01	02096	4	N
Separations for Female and age 14-99	S_A2A00	02084	4	N
Separations for Female and age 19-21	S_A2A02	02108	4	N
Separations for Female and age 22-24	S_A2A03	02120	4	N
Separations for Female and age 25-34	S_A2A04	02132	4	N
Separations for Female and age 35-44	S_A2A05	02144	4	N
Separations for Female and age 45-54	S_A2A06	02156	4	N
Separations for Female and age 55-64	S_A2A07	02168	4	N
Separations for Female and age 65-99	S_A2A08	02180	4	N
Separations for Male and Female and age 14-18	S_A0A01	02088	4	N
Separations for Male and Female and age 14-99	S_A0A00	02076	4	N
Separations for Male and Female and age 19-21	S_A0A02	02100	4	N
Separations for Male and Female and age 22-24	S_A0A03	02112	4	N
Separations for Male and Female and age 25-34	S_A0A04	02124	4	N
Separations for Male and Female and age 35-44	S_A0A05	02136	4	N
Separations for Male and Female and age 45-54	S_A0A06	02148	4	N
Separations for Male and Female and age 55-64	S_A0A07	02160	4	N
Separations for Male and Female and age 65-99	S_A0A08	02172	4	N
Separations for Male and age 14-18	S_A1A01	02092	4	N
Separations for Male and age 14-99	S_A1A00	02080	4	N
Separations for Male and age 19-21	S_A1A02	02104	4	N
Separations for Male and age 22-24	S_A1A03	02116	4	N
Separations for Male and age 25-34	S_A1A04	02128	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Separations for Male and age 35-44	S_A1A05	02140	4	N
Separations for Male and age 45-54	S_A1A06	02152	4	N
Separations for Male and age 55-64	S_A1A07	02164	4	N
Separations for Male and age 65-99	S_A1A08	02176	4	N
State Employer ID Number	SEIN	07476	12	A/N
State UI Reporting Unit Number	SEINUNIT	07488	5	A/N
Sub-county geocode	LEG_SUBCTYGEO	07509	10	A/N
Sum of log of earnings of beginning-of-period employment for Female and age 14-1	LNWB_A2A01	05444	4	N
Sum of log of earnings of beginning-of-period employment for Female and age 14-9	LNWB_A2A00	05432	4	N
Sum of log of earnings of beginning-of-period employment for Female and age 19-2	LNWB_A2A02	05456	4	N
Sum of log of earnings of beginning-of-period employment for Female and age 22-2	LNWB_A2A03	05468	4	N
Sum of log of earnings of beginning-of-period employment for Female and age 25-3	LNWB_A2A04	05480	4	N
Sum of log of earnings of beginning-of-period employment for Female and age 35-4	LNWB_A2A05	05492	4	N
Sum of log of earnings of beginning-of-period employment for Female and age 45-5	LNWB_A2A06	05504	4	N
Sum of log of earnings of beginning-of-period employment for Female and age 55-6	LNWB_A2A07	05516	4	N
Sum of log of earnings of beginning-of-period employment for Female and age 65-9	LNWB_A2A08	05528	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A01	05436	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A00	05424	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A02	05448	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A03	05460	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A04	05472	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A05	05484	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A06	05496	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A07	05508	4	N
Sum of log of earnings of beginning-of-period employment for Male and Female and	LNWB_A0A08	05520	4	N
Sum of log of earnings of beginning-of-period employment for Male and age 14-18	LNWB_A1A01	05440	4	N
Sum of log of earnings of beginning-of-period employment for Male and age 14-99	LNWB_A1A00	05428	4	N
Sum of log of earnings of beginning-of-period employment for Male and age 19-21	LNWB_A1A02	05452	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Sum of log of earnings of beginning-of-period employment for Male and age 22-24	LNWB_A1A03	05464	4	N
Sum of log of earnings of beginning-of-period employment for Male and age 25-34	LNWB_A1A04	05476	4	N
Sum of log of earnings of beginning-of-period employment for Male and age 35-44	LNWB_A1A05	05488	4	N
Sum of log of earnings of beginning-of-period employment for Male and age 45-54	LNWB_A1A06	05500	4	N
Sum of log of earnings of beginning-of-period employment for Male and age 55-64	LNWB_A1A07	05512	4	N
Sum of log of earnings of beginning-of-period employment for Male and age 65-99	LNWB_A1A08	05524	4	N
Sum of log of earnings of end-of-period employment for Female and age 14-18	LNWE_A2A01	05984	4	N
Sum of log of earnings of end-of-period employment for Female and age 14-99	LNWE_A2A00	05972	4	N
Sum of log of earnings of end-of-period employment for Female and age 19-21	LNWE_A2A02	05996	4	N
Sum of log of earnings of end-of-period employment for Female and age 22-24	LNWE_A2A03	06008	4	N
Sum of log of earnings of end-of-period employment for Female and age 25-34	LNWE_A2A04	06020	4	N
Sum of log of earnings of end-of-period employment for Female and age 35-44	LNWE_A2A05	06032	4	N
Sum of log of earnings of end-of-period employment for Female and age 45-54	LNWE_A2A06	06044	4	N
Sum of log of earnings of end-of-period employment for Female and age 55-64	LNWE_A2A07	06056	4	N
Sum of log of earnings of end-of-period employment for Female and age 65-99	LNWE_A2A08	06068	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 1	LNWE_A0A01	05976	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 1	LNWE_A0A00	05964	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 1	LNWE_A0A02	05988	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 2	LNWE_A0A03	06000	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 2	LNWE_A0A04	06012	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 3	LNWE_A0A05	06024	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 4	LNWE_A0A06	06036	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 5	LNWE_A0A07	06048	4	N
Sum of log of earnings of end-of-period employment for Male and Female and age 6	LNWE_A0A08	06060	4	N
Sum of log of earnings of end-of-period employment for Male and age 14-18	LNWE_A1A01	05980	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Sum of log of earnings of end-of-period employment for Male and age 14-99	LNWE_A1A00	05968	4	N
Sum of log of earnings of end-of-period employment for Male and age 19-21	LNWE_A1A02	05992	4	N
Sum of log of earnings of end-of-period employment for Male and age 22-24	LNWE_A1A03	06004	4	N
Sum of log of earnings of end-of-period employment for Male and age 25-34	LNWE_A1A04	06016	4	N
Sum of log of earnings of end-of-period employment for Male and age 35-44	LNWE_A1A05	06028	4	N
Sum of log of earnings of end-of-period employment for Male and age 45-54	LNWE_A1A06	06040	4	N
Sum of log of earnings of end-of-period employment for Male and age 55-64	LNWE_A1A07	06052	4	N
Sum of log of earnings of end-of-period employment for Male and age 65-99	LNWE_A1A08	06064	4	N
Sum of log of earnings of full-quarter employment for Female and age 14-18	LNWF_A2A01	06524	4	N
Sum of log of earnings of full-quarter employment for Female and age 14-99	LNWF_A2A00	06512	4	N
Sum of log of earnings of full-quarter employment for Female and age 19-21	LNWF_A2A02	06536	4	N
Sum of log of earnings of full-quarter employment for Female and age 22-24	LNWF_A2A03	06548	4	N
Sum of log of earnings of full-quarter employment for Female and age 25-34	LNWF_A2A04	06560	4	N
Sum of log of earnings of full-quarter employment for Female and age 35-44	LNWF_A2A05	06572	4	N
Sum of log of earnings of full-quarter employment for Female and age 45-54	LNWF_A2A06	06584	4	N
Sum of log of earnings of full-quarter employment for Female and age 55-64	LNWF_A2A07	06596	4	N
Sum of log of earnings of full-quarter employment for Female and age 65-99	LNWF_A2A08	06608	4	N
Sum of log of earnings of full-quarter employment for Male and Female and age 14	LNWF_A0A01	06516	4	N
Sum of log of earnings of full-quarter employment for Male and Female and age 14	LNWF_A0A00	06504	4	N
Sum of log of earnings of full-quarter employment for Male and Female and age 19	LNWF_A0A02	06528	4	N
Sum of log of earnings of full-quarter employment for Male and Female and age 22	LNWF_A0A03	06540	4	N
Sum of log of earnings of full-quarter employment for Male and Female and age 25	LNWF_A0A04	06552	4	N
Sum of log of earnings of full-quarter employment for Male and Female and age 35	LNWF_A0A05	06564	4	N
Sum of log of earnings of full-quarter employment for Male and Female and age 45	LNWF_A0A06	06576	4	N
Sum of log of earnings of full-quarter employment for Male and Female and age 55	LNWF_A0A07	06588	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Sum of log of earnings of full-quarter employment for Male and Female and age 65	LNWF_A0A08	06600	4	N
Sum of log of earnings of full-quarter employment for Male and age 14-18	LNWF_A1A01	06520	4	N
Sum of log of earnings of full-quarter employment for Male and age 14-99	LNWF_A1A00	06508	4	N
Sum of log of earnings of full-quarter employment for Male and age 19-21	LNWF_A1A02	06532	4	N
Sum of log of earnings of full-quarter employment for Male and age 22-24	LNWF_A1A03	06544	4	N
Sum of log of earnings of full-quarter employment for Male and age 25-34	LNWF_A1A04	06556	4	N
Sum of log of earnings of full-quarter employment for Male and age 35-44	LNWF_A1A05	06568	4	N
Sum of log of earnings of full-quarter employment for Male and age 45-54	LNWF_A1A06	06580	4	N
Sum of log of earnings of full-quarter employment for Male and age 55-64	LNWF_A1A07	06592	4	N
Sum of log of earnings of full-quarter employment for Male and age 65-99	LNWF_A1A08	06604	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A01	05552	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A00	05540	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A02	05564	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A03	05576	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A04	05588	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A05	05600	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A06	05612	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A07	05624	4	N
Sum of log of lag earnings of beginning-of-period employment for Female and age	LNWBLG_A2A08	05636	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A01	05544	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A00	05532	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A02	05556	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A03	05568	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A04	05580	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A05	05592	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A06	05604	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A07	05616	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and Female	LNWBLG_A0A08	05628	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 14	LNWBLG_A1A01	05548	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 14	LNWBLG_A1A00	05536	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 19	LNWBLG_A1A02	05560	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 22	LNWBLG_A1A03	05572	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 25	LNWBLG_A1A04	05584	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 35	LNWBLG_A1A05	05596	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 45	LNWBLG_A1A06	05608	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 55	LNWBLG_A1A07	05620	4	N
Sum of log of lag earnings of beginning-of-period employment for Male and age 65	LNWBLG_A1A08	05632	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 14-18	LNWFLG_A2A01	06740	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 14-99	LNWFLG_A2A00	06728	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 19-21	LNWFLG_A2A02	06752	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 22-24	LNWFLG_A2A03	06764	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 25-34	LNWFLG_A2A04	06776	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 35-44	LNWFLG_A2A05	06788	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 45-54	LNWFLG_A2A06	06800	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 55-64	LNWFLG_A2A07	06812	4	N
Sum of log of lag earnings of full-quarter employment for Female and age 65-99	LNWFLG_A2A08	06824	4	N
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A01	06732	4	N
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A00	06720	4	N
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A02	06744	4	N
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A03	06756	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A04	06768	4	N
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A05	06780	4	N
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A06	06792	4	N
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A07	06804	4	N
Sum of log of lag earnings of full-quarter employment for Male and Female and ag	LNWFLG_A0A08	06816	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 14-18	LNWFLG_A1A01	06736	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 14-99	LNWFLG_A1A00	06724	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 19-21	LNWFLG_A1A02	06748	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 22-24	LNWFLG_A1A03	06760	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 25-34	LNWFLG_A1A04	06772	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 35-44	LNWFLG_A1A05	06784	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 45-54	LNWFLG_A1A06	06796	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 55-64	LNWFLG_A1A07	06808	4	N
Sum of log of lag earnings of full-quarter employment for Male and age 65-99	LNWFLG_A1A08	06820	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 14-18	LNWELD_A2A01	06092	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 14-99	LNWELD_A2A00	06080	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 19-21	LNWELD_A2A02	06104	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 22-24	LNWELD_A2A03	06116	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 25-34	LNWELD_A2A04	06128	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 35-44	LNWELD_A2A05	06140	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 45-54	LNWELD_A2A06	06152	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 55-64	LNWELD_A2A07	06164	4	N
Sum of log of lead earnings of end-of-period employment for Female and age 65-99	LNWELD_A2A08	06176	4	N
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A01	06084	4	N
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A00	06072	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A02	06096	4	N
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A03	06108	4	N
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A04	06120	4	N
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A05	06132	4	N
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A06	06144	4	N
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A07	06156	4	N
Sum of log of lead earnings of end-of-period employment for Male and Female and	LNWELD_A0A08	06168	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 14-18	LNWELD_A1A01	06088	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 14-99	LNWELD_A1A00	06076	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 19-21	LNWELD_A1A02	06100	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 22-24	LNWELD_A1A03	06112	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 25-34	LNWELD_A1A04	06124	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 35-44	LNWELD_A1A05	06136	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 45-54	LNWELD_A1A06	06148	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 55-64	LNWELD_A1A07	06160	4	N
Sum of log of lead earnings of end-of-period employment for Male and age 65-99	LNWELD_A1A08	06172	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 14-18	LNWFLD_A2A01	06632	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 14-99	LNWFLD_A2A00	06620	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 19-21	LNWFLD_A2A02	06644	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 22-24	LNWFLD_A2A03	06656	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 25-34	LNWFLD_A2A04	06668	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 35-44	LNWFLD_A2A05	06680	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 45-54	LNWFLD_A2A06	06692	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 55-64	LNWFLD_A2A07	06704	4	N
Sum of log of lead earnings of full-quarter employment for Female and age 65-99	LNWFLD_A2A08	06716	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A01	06624	4	N
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A00	06612	4	N
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A02	06636	4	N
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A03	06648	4	N
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A04	06660	4	N
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A05	06672	4	N
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A06	06684	4	N
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A07	06696	4	N
Sum of log of lead earnings of full-quarter employment for Male and Female and a	LNWFLD_A0A08	06708	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 14-18	LNWFLD_A1A01	06628	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 14-99	LNWFLD_A1A00	06616	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 19-21	LNWFLD_A1A02	06640	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 22-24	LNWFLD_A1A03	06652	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 25-34	LNWFLD_A1A04	06664	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 35-44	LNWFLD_A1A05	06676	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 45-54	LNWFLD_A1A06	06688	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 55-64	LNWFLD_A1A07	06700	4	N
Sum of log of lead earnings of full-quarter employment for Male and age 65-99	LNWFLD_A1A08	06712	4	N
Total earnings of separations for Female and age 14-18	WS_A2A01	04580	4	N
Total earnings of separations for Female and age 14-99	WS_A2A00	04568	4	N
Total earnings of separations for Female and age 19-21	WS_A2A02	04592	4	N
Total earnings of separations for Female and age 22-24	WS_A2A03	04604	4	N
Total earnings of separations for Female and age 25-34	WS_A2A04	04616	4	N
Total earnings of separations for Female and age 35-44	WS_A2A05	04628	4	N
Total earnings of separations for Female and age 45-54	WS_A2A06	04640	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total earnings of separations for Female and age 55-64	WS_A2A07	04652	4	N
Total earnings of separations for Female and age 65-99	WS_A2A08	04664	4	N
Total earnings of separations for Male and Female and age 14-18	WS_A0A01	04572	4	N
Total earnings of separations for Male and Female and age 14-99	WS_A0A00	04560	4	N
Total earnings of separations for Male and Female and age 19-21	WS_A0A02	04584	4	N
Total earnings of separations for Male and Female and age 22-24	WS_A0A03	04596	4	N
Total earnings of separations for Male and Female and age 25-34	WS_A0A04	04608	4	N
Total earnings of separations for Male and Female and age 35-44	WS_A0A05	04620	4	N
Total earnings of separations for Male and Female and age 45-54	WS_A0A06	04632	4	N
Total earnings of separations for Male and Female and age 55-64	WS_A0A07	04644	4	N
Total earnings of separations for Male and Female and age 65-99	WS_A0A08	04656	4	N
Total earnings of separations for Male and age 14-18	WS_A1A01	04576	4	N
Total earnings of separations for Male and age 14-99	WS_A1A00	04564	4	N
Total earnings of separations for Male and age 19-21	WS_A1A02	04588	4	N
Total earnings of separations for Male and age 22-24	WS_A1A03	04600	4	N
Total earnings of separations for Male and age 25-34	WS_A1A04	04612	4	N
Total earnings of separations for Male and age 35-44	WS_A1A05	04624	4	N
Total earnings of separations for Male and age 45-54	WS_A1A06	04636	4	N
Total earnings of separations for Male and age 55-64	WS_A1A07	04648	4	N
Total earnings of separations for Male and age 65-99	WS_A1A08	04660	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A01	04796	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A00	04784	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A02	04808	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A03	04820	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A04	04832	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A05	04844	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A06	04856	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A07	04868	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A2A08	04880	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A01	04788	4	N18
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A00	04776	4	N99
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A02	04800	4	N21
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A03	04812	4	N24
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A04	04824	4	N34
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A05	04836	4	N44
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A06	04848	4	N54
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A07	04860	4	N64
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A0A08	04872	4	N99
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A01	04792	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A00	04780	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A02	04804	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A03	04816	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A04	04828	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A05	04840	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A06	04852	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A07	04864	4	N
Total earnings of separations from full-quarter status (most recent full quarter	WFS_A1A08	04876	4	N
Total payroll of accessions for Female and age 14-18	WA_A2A01	03716	4	N
Total payroll of accessions for Female and age 14-99	WA_A2A00	03704	4	N
Total payroll of accessions for Female and age 19-21	WA_A2A02	03728	4	N
Total payroll of accessions for Female and age 22-24	WA_A2A03	03740	4	N
Total payroll of accessions for Female and age 25-34	WA_A2A04	03752	4	N
Total payroll of accessions for Female and age 35-44	WA_A2A05	03764	4	N
Total payroll of accessions for Female and age 45-54	WA_A2A06	03776	4	N
Total payroll of accessions for Female and age 55-64	WA_A2A07	03788	4	N
Total payroll of accessions for Female and age 65-99	WA_A2A08	03800	4	N
Total payroll of accessions for Male and Female and age 14-18	WA_A0A01	03708	4	N
Total payroll of accessions for Male and Female and age 14-99	WA_A0A00	03696	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total payroll of accessions for Male and Female and age 19-21	WA_A0A02	03720	4	N
Total payroll of accessions for Male and Female and age 22-24	WA_A0A03	03732	4	N
Total payroll of accessions for Male and Female and age 25-34	WA_A0A04	03744	4	N
Total payroll of accessions for Male and Female and age 35-44	WA_A0A05	03756	4	N
Total payroll of accessions for Male and Female and age 45-54	WA_A0A06	03768	4	N
Total payroll of accessions for Male and Female and age 55-64	WA_A0A07	03780	4	N
Total payroll of accessions for Male and Female and age 65-99	WA_A0A08	03792	4	N
Total payroll of accessions for Male and age 14-18	WA_A1A01	03712	4	N
Total payroll of accessions for Male and age 14-99	WA_A1A00	03700	4	N
Total payroll of accessions for Male and age 19-21	WA_A1A02	03724	4	N
Total payroll of accessions for Male and age 22-24	WA_A1A03	03736	4	N
Total payroll of accessions for Male and age 25-34	WA_A1A04	03748	4	N
Total payroll of accessions for Male and age 35-44	WA_A1A05	03760	4	N
Total payroll of accessions for Male and age 45-54	WA_A1A06	03772	4	N
Total payroll of accessions for Male and age 55-64	WA_A1A07	03784	4	N
Total payroll of accessions for Male and age 65-99	WA_A1A08	03796	4	N
Total payroll of all employees for Female and age 14-18	W1_A2A01	03284	4	N
Total payroll of all employees for Female and age 14-99	W1_A2A00	03272	4	N
Total payroll of all employees for Female and age 19-21	W1_A2A02	03296	4	N
Total payroll of all employees for Female and age 22-24	W1_A2A03	03308	4	N
Total payroll of all employees for Female and age 25-34	W1_A2A04	03320	4	N
Total payroll of all employees for Female and age 35-44	W1_A2A05	03332	4	N
Total payroll of all employees for Female and age 45-54	W1_A2A06	03344	4	N
Total payroll of all employees for Female and age 55-64	W1_A2A07	03356	4	N
Total payroll of all employees for Female and age 65-99	W1_A2A08	03368	4	N
Total payroll of all employees for Male and Female and age 14-18	W1_A0A01	03276	4	N
Total payroll of all employees for Male and Female and age 14-99	W1_A0A00	03264	4	N
Total payroll of all employees for Male and Female and age 19-21	W1_A0A02	03288	4	N
Total payroll of all employees for Male and Female and age 22-24	W1_A0A03	03300	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total payroll of all employees for Male and Female and age 25-34	W1_A0A04	03312	4	N
Total payroll of all employees for Male and Female and age 35-44	W1_A0A05	03324	4	N
Total payroll of all employees for Male and Female and age 45-54	W1_A0A06	03336	4	N
Total payroll of all employees for Male and Female and age 55-64	W1_A0A07	03348	4	N
Total payroll of all employees for Male and Female and age 65-99	W1_A0A08	03360	4	N
Total payroll of all employees for Male and age 14-18	W1_A1A01	03280	4	N
Total payroll of all employees for Male and age 14-99	W1_A1A00	03268	4	N
Total payroll of all employees for Male and age 19-21	W1_A1A02	03292	4	N
Total payroll of all employees for Male and age 22-24	W1_A1A03	03304	4	N
Total payroll of all employees for Male and age 25-34	W1_A1A04	03316	4	N
Total payroll of all employees for Male and age 35-44	W1_A1A05	03328	4	N
Total payroll of all employees for Male and age 45-54	W1_A1A06	03340	4	N
Total payroll of all employees for Male and age 55-64	W1_A1A07	03352	4	N
Total payroll of all employees for Male and age 65-99	W1_A1A08	03364	4	N
Total payroll of end-of-period employees for Female and age 14-18	W2_A2A01	03392	4	N
Total payroll of end-of-period employees for Female and age 14-99	W2_A2A00	03380	4	N
Total payroll of end-of-period employees for Female and age 19-21	W2_A2A02	03404	4	N
Total payroll of end-of-period employees for Female and age 22-24	W2_A2A03	03416	4	N
Total payroll of end-of-period employees for Female and age 25-34	W2_A2A04	03428	4	N
Total payroll of end-of-period employees for Female and age 35-44	W2_A2A05	03440	4	N
Total payroll of end-of-period employees for Female and age 45-54	W2_A2A06	03452	4	N
Total payroll of end-of-period employees for Female and age 55-64	W2_A2A07	03464	4	N
Total payroll of end-of-period employees for Female and age 65-99	W2_A2A08	03476	4	N
Total payroll of end-of-period employees for Male and Female and age 14-18	W2_A0A01	03384	4	N
Total payroll of end-of-period employees for Male and Female and age 14-99	W2_A0A00	03372	4	N
Total payroll of end-of-period employees for Male and Female and age 19-21	W2_A0A02	03396	4	N
Total payroll of end-of-period employees for Male and Female and age 22-24	W2_A0A03	03408	4	N
Total payroll of end-of-period employees for Male and Female and age 25-34	W2_A0A04	03420	4	N
Total payroll of end-of-period employees for Male and Female and age 35-44	W2_A0A05	03432	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total payroll of end-of-period employees for Male and Female and age 45-54	W2_A0A06	03444	4	N
Total payroll of end-of-period employees for Male and Female and age 55-64	W2_A0A07	03456	4	N
Total payroll of end-of-period employees for Male and Female and age 65-99	W2_A0A08	03468	4	N
Total payroll of end-of-period employees for Male and age 14-18	W2_A1A01	03388	4	N
Total payroll of end-of-period employees for Male and age 14-99	W2_A1A00	03376	4	N
Total payroll of end-of-period employees for Male and age 19-21	W2_A1A02	03400	4	N
Total payroll of end-of-period employees for Male and age 22-24	W2_A1A03	03412	4	N
Total payroll of end-of-period employees for Male and age 25-34	W2_A1A04	03424	4	N
Total payroll of end-of-period employees for Male and age 35-44	W2_A1A05	03436	4	N
Total payroll of end-of-period employees for Male and age 45-54	W2_A1A06	03448	4	N
Total payroll of end-of-period employees for Male and age 55-64	W2_A1A07	03460	4	N
Total payroll of end-of-period employees for Male and age 65-99	W2_A1A08	03472	4	N
Total payroll of full-quarter employees for Female and age 14-18	W3_A2A01	03500	4	N
Total payroll of full-quarter employees for Female and age 14-99	W3_A2A00	03488	4	N
Total payroll of full-quarter employees for Female and age 19-21	W3_A2A02	03512	4	N
Total payroll of full-quarter employees for Female and age 22-24	W3_A2A03	03524	4	N
Total payroll of full-quarter employees for Female and age 25-34	W3_A2A04	03536	4	N
Total payroll of full-quarter employees for Female and age 35-44	W3_A2A05	03548	4	N
Total payroll of full-quarter employees for Female and age 45-54	W3_A2A06	03560	4	N
Total payroll of full-quarter employees for Female and age 55-64	W3_A2A07	03572	4	N
Total payroll of full-quarter employees for Female and age 65-99	W3_A2A08	03584	4	N
Total payroll of full-quarter employees for Male and Female and age 14-18	W3_A0A01	03492	4	N
Total payroll of full-quarter employees for Male and Female and age 14-99	W3_A0A00	03480	4	N
Total payroll of full-quarter employees for Male and Female and age 19-21	W3_A0A02	03504	4	N
Total payroll of full-quarter employees for Male and Female and age 22-24	W3_A0A03	03516	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total payroll of full-quarter employees for Male and Female and age 25-34	W3_A0A04	03528	4	N
Total payroll of full-quarter employees for Male and Female and age 35-44	W3_A0A05	03540	4	N
Total payroll of full-quarter employees for Male and Female and age 45-54	W3_A0A06	03552	4	N
Total payroll of full-quarter employees for Male and Female and age 55-64	W3_A0A07	03564	4	N
Total payroll of full-quarter employees for Male and Female and age 65-99	W3_A0A08	03576	4	N
Total payroll of full-quarter employees for Male and age 14-18	W3_A1A01	03496	4	N
Total payroll of full-quarter employees for Male and age 14-99	W3_A1A00	03484	4	N
Total payroll of full-quarter employees for Male and age 19-21	W3_A1A02	03508	4	N
Total payroll of full-quarter employees for Male and age 22-24	W3_A1A03	03520	4	N
Total payroll of full-quarter employees for Male and age 25-34	W3_A1A04	03532	4	N
Total payroll of full-quarter employees for Male and age 35-44	W3_A1A05	03544	4	N
Total payroll of full-quarter employees for Male and age 45-54	W3_A1A06	03556	4	N
Total payroll of full-quarter employees for Male and age 55-64	W3_A1A07	03568	4	N
Total payroll of full-quarter employees for Male and age 65-99	W3_A1A08	03580	4	N
Total payroll of new hires to full-quarter status for Female and age 14-18	WH3_A2A01	03608	4	N
Total payroll of new hires to full-quarter status for Female and age 14-99	WH3_A2A00	03596	4	N
Total payroll of new hires to full-quarter status for Female and age 19-21	WH3_A2A02	03620	4	N
Total payroll of new hires to full-quarter status for Female and age 22-24	WH3_A2A03	03632	4	N
Total payroll of new hires to full-quarter status for Female and age 25-34	WH3_A2A04	03644	4	N
Total payroll of new hires to full-quarter status for Female and age 35-44	WH3_A2A05	03656	4	N
Total payroll of new hires to full-quarter status for Female and age 45-54	WH3_A2A06	03668	4	N
Total payroll of new hires to full-quarter status for Female and age 55-64	WH3_A2A07	03680	4	N
Total payroll of new hires to full-quarter status for Female and age 65-99	WH3_A2A08	03692	4	N
Total payroll of new hires to full-quarter status for Male and Female and age 14	WH3_A0A01	03600	4	N
Total payroll of new hires to full-quarter status for Male and Female and age 14	WH3_A0A00	03588	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total payroll of new hires to full-quarter status for Male and Female and age 19	WH3_A0A02	03612	4	N
Total payroll of new hires to full-quarter status for Male and Female and age 22	WH3_A0A03	03624	4	N
Total payroll of new hires to full-quarter status for Male and Female and age 25	WH3_A0A04	03636	4	N
Total payroll of new hires to full-quarter status for Male and Female and age 35	WH3_A0A05	03648	4	N
Total payroll of new hires to full-quarter status for Male and Female and age 45	WH3_A0A06	03660	4	N
Total payroll of new hires to full-quarter status for Male and Female and age 55	WH3_A0A07	03672	4	N
Total payroll of new hires to full-quarter status for Male and Female and age 65	WH3_A0A08	03684	4	N
Total payroll of new hires to full-quarter status for Male and age 14-18	WH3_A1A01	03604	4	N
Total payroll of new hires to full-quarter status for Male and age 14-99	WH3_A1A00	03592	4	N
Total payroll of new hires to full-quarter status for Male and age 19-21	WH3_A1A02	03616	4	N
Total payroll of new hires to full-quarter status for Male and age 22-24	WH3_A1A03	03628	4	N
Total payroll of new hires to full-quarter status for Male and age 25-34	WH3_A1A04	03640	4	N
Total payroll of new hires to full-quarter status for Male and age 35-44	WH3_A1A05	03652	4	N
Total payroll of new hires to full-quarter status for Male and age 45-54	WH3_A1A06	03664	4	N
Total payroll of new hires to full-quarter status for Male and age 55-64	WH3_A1A07	03676	4	N
Total payroll of new hires to full-quarter status for Male and age 65-99	WH3_A1A08	03688	4	N
Total payroll of transits to consecutive-quarter status for Female and age 14-18	WCA_A2A01	03932	4	N
Total payroll of transits to consecutive-quarter status for Female and age 14-99	WCA_A2A00	03920	4	N
Total payroll of transits to consecutive-quarter status for Female and age 19-21	WCA_A2A02	03944	4	N
Total payroll of transits to consecutive-quarter status for Female and age 22-24	WCA_A2A03	03956	4	N
Total payroll of transits to consecutive-quarter status for Female and age 25-34	WCA_A2A04	03968	4	N
Total payroll of transits to consecutive-quarter status for Female and age 35-44	WCA_A2A05	03980	4	N
Total payroll of transits to consecutive-quarter status for Female and age 45-54	WCA_A2A06	03992	4	N
Total payroll of transits to consecutive-quarter status for Female and age 55-64	WCA_A2A07	04004	4	N
Total payroll of transits to consecutive-quarter status for Female and age 65-99	WCA_A2A08	04016	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A01	03924	4	N
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A00	03912	4	N
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A02	03936	4	N
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A03	03948	4	N
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A04	03960	4	N
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A05	03972	4	N
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A06	03984	4	N
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A07	03996	4	N
Total payroll of transits to consecutive-quarter status for Male and Female and	WCA_A0A08	04008	4	N
Total payroll of transits to consecutive-quarter status for Male and age 14-18	WCA_A1A01	03928	4	N
Total payroll of transits to consecutive-quarter status for Male and age 14-99	WCA_A1A00	03916	4	N
Total payroll of transits to consecutive-quarter status for Male and age 19-21	WCA_A1A02	03940	4	N
Total payroll of transits to consecutive-quarter status for Male and age 22-24	WCA_A1A03	03952	4	N
Total payroll of transits to consecutive-quarter status for Male and age 25-34	WCA_A1A04	03964	4	N
Total payroll of transits to consecutive-quarter status for Male and age 35-44	WCA_A1A05	03976	4	N
Total payroll of transits to consecutive-quarter status for Male and age 45-54	WCA_A1A06	03988	4	N
Total payroll of transits to consecutive-quarter status for Male and age 55-64	WCA_A1A07	04000	4	N
Total payroll of transits to consecutive-quarter status for Male and age 65-99	WCA_A1A08	04012	4	N
Total payroll of transits to full-quarter status for Female and age 14-18	WFA_A2A01	04040	4	N
Total payroll of transits to full-quarter status for Female and age 14-99	WFA_A2A00	04028	4	N
Total payroll of transits to full-quarter status for Female and age 19-21	WFA_A2A02	04052	4	N
Total payroll of transits to full-quarter status for Female and age 22-24	WFA_A2A03	04064	4	N
Total payroll of transits to full-quarter status for Female and age 25-34	WFA_A2A04	04076	4	N
Total payroll of transits to full-quarter status for Female and age 35-44	WFA_A2A05	04088	4	N
Total payroll of transits to full-quarter status for Female and age 45-54	WFA_A2A06	04100	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total payroll of transits to full-quarter status for Female and age 55-64	WFA_A2A07	04112	4	N
Total payroll of transits to full-quarter status for Female and age 65-99	WFA_A2A08	04124	4	N
Total payroll of transits to full-quarter status for Male and Female and age 14-	WFA_A0A01	04032	4	N
Total payroll of transits to full-quarter status for Male and Female and age 14-	WFA_A0A00	04020	4	N
Total payroll of transits to full-quarter status for Male and Female and age 19-	WFA_A0A02	04044	4	N
Total payroll of transits to full-quarter status for Male and Female and age 22-	WFA_A0A03	04056	4	N
Total payroll of transits to full-quarter status for Male and Female and age 25-	WFA_A0A04	04068	4	N
Total payroll of transits to full-quarter status for Male and Female and age 35-	WFA_A0A05	04080	4	N
Total payroll of transits to full-quarter status for Male and Female and age 45-	WFA_A0A06	04092	4	N
Total payroll of transits to full-quarter status for Male and Female and age 55-	WFA_A0A07	04104	4	N
Total payroll of transits to full-quarter status for Male and Female and age 65-	WFA_A0A08	04116	4	N
Total payroll of transits to full-quarter status for Male and age 14-18	WFA_A1A01	04036	4	N
Total payroll of transits to full-quarter status for Male and age 14-99	WFA_A1A00	04024	4	N
Total payroll of transits to full-quarter status for Male and age 19-21	WFA_A1A02	04048	4	N
Total payroll of transits to full-quarter status for Male and age 22-24	WFA_A1A03	04060	4	N
Total payroll of transits to full-quarter status for Male and age 25-34	WFA_A1A04	04072	4	N
Total payroll of transits to full-quarter status for Male and age 35-44	WFA_A1A05	04084	4	N
Total payroll of transits to full-quarter status for Male and age 45-54	WFA_A1A06	04096	4	N
Total payroll of transits to full-quarter status for Male and age 55-64	WFA_A1A07	04108	4	N
Total payroll of transits to full-quarter status for Male and age 65-99	WFA_A1A08	04120	4	N
Total periods of non-employment for accessions for Female and age 14-18	NA_A2A01	04256	4	N
Total periods of non-employment for accessions for Female and age 14-99	NA_A2A00	04244	4	N
Total periods of non-employment for accessions for Female and age 19-21	NA_A2A02	04268	4	N
Total periods of non-employment for accessions for Female and age 22-24	NA_A2A03	04280	4	N
Total periods of non-employment for accessions for Female and age 25-34	NA_A2A04	04292	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total periods of non-employment for accessions for Female and age 35-44	NA_A2A05	04304	4	N
Total periods of non-employment for accessions for Female and age 45-54	NA_A2A06	04316	4	N
Total periods of non-employment for accessions for Female and age 55-64	NA_A2A07	04328	4	N
Total periods of non-employment for accessions for Female and age 65-99	NA_A2A08	04340	4	N
Total periods of non-employment for accessions for Male and Female and age 14-18	NA_A0A01	04248	4	N
Total periods of non-employment for accessions for Male and Female and age 14-99	NA_A0A00	04236	4	N
Total periods of non-employment for accessions for Male and Female and age 19-21	NA_A0A02	04260	4	N
Total periods of non-employment for accessions for Male and Female and age 22-24	NA_A0A03	04272	4	N
Total periods of non-employment for accessions for Male and Female and age 25-34	NA_A0A04	04284	4	N
Total periods of non-employment for accessions for Male and Female and age 35-44	NA_A0A05	04296	4	N
Total periods of non-employment for accessions for Male and Female and age 45-54	NA_A0A06	04308	4	N
Total periods of non-employment for accessions for Male and Female and age 55-64	NA_A0A07	04320	4	N
Total periods of non-employment for accessions for Male and Female and age 65-99	NA_A0A08	04332	4	N
Total periods of non-employment for accessions for Male and age 14-18	NA_A1A01	04252	4	N
Total periods of non-employment for accessions for Male and age 14-99	NA_A1A00	04240	4	N
Total periods of non-employment for accessions for Male and age 19-21	NA_A1A02	04264	4	N
Total periods of non-employment for accessions for Male and age 22-24	NA_A1A03	04276	4	N
Total periods of non-employment for accessions for Male and age 25-34	NA_A1A04	04288	4	N
Total periods of non-employment for accessions for Male and age 35-44	NA_A1A05	04300	4	N
Total periods of non-employment for accessions for Male and age 45-54	NA_A1A06	04312	4	N
Total periods of non-employment for accessions for Male and age 55-64	NA_A1A07	04324	4	N
Total periods of non-employment for accessions for Male and age 65-99	NA_A1A08	04336	4	N
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A01	04364	4	N
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A00	04352	4	N
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A02	04376	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A03	04388	4	N
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A04	04400	4	N
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A05	04412	4	N
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A06	04424	4	N
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A07	04436	4	N
Total periods of non-employment for new hires (last four quarters) for Female an	NH_A2A08	04448	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A01	04356	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A00	04344	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A02	04368	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A03	04380	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A04	04392	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A05	04404	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A06	04416	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A07	04428	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A0A08	04440	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A01	04360	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A00	04348	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A02	04372	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A03	04384	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A04	04396	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A05	04408	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A06	04420	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A07	04432	4	N
Total periods of non-employment for new hires (last four quarters) for Male and	NH_A1A08	04444	4	N
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A01	04472	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A00	04460	4	N
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A02	04484	4	N
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A03	04496	4	N
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A04	04508	4	N
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A05	04520	4	N
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A06	04532	4	N
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A07	04544	4	N
Total periods of non-employment for recalls (last four quarters) for Female and	NR_A2A08	04556	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A01	04464	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A00	04452	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A02	04476	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A03	04488	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A04	04500	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A05	04512	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A06	04524	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A07	04536	4	N
Total periods of non-employment for recalls (last four quarters) for Male and Fe	NR_A0A08	04548	4	N
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A01	04468	4	N
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A00	04456	4	N
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A02	04480	4	N
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A03	04492	4	N
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A04	04504	4	N
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A05	04516	4	N
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A06	04528	4	N
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A07	04540	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total periods of non-employment for recalls (last four quarters) for Male and ag	NR_A1A08	04552	4	N
Total periods of non-employment for separations for Female and age 14-18	NS_A2A01	05012	4	N
Total periods of non-employment for separations for Female and age 14-99	NS_A2A00	05000	4	N
Total periods of non-employment for separations for Female and age 19-21	NS_A2A02	05024	4	N
Total periods of non-employment for separations for Female and age 22-24	NS_A2A03	05036	4	N
Total periods of non-employment for separations for Female and age 25-34	NS_A2A04	05048	4	N
Total periods of non-employment for separations for Female and age 35-44	NS_A2A05	05060	4	N
Total periods of non-employment for separations for Female and age 45-54	NS_A2A06	05072	4	N
Total periods of non-employment for separations for Female and age 55-64	NS_A2A07	05084	4	N
Total periods of non-employment for separations for Female and age 65-99	NS_A2A08	05096	4	N
Total periods of non-employment for separations for Male and Female and age 14-1	NS_A0A01	05004	4	N
Total periods of non-employment for separations for Male and Female and age 14-9	NS_A0A00	04992	4	N
Total periods of non-employment for separations for Male and Female and age 19-2	NS_A0A02	05016	4	N
Total periods of non-employment for separations for Male and Female and age 22-2	NS_A0A03	05028	4	N
Total periods of non-employment for separations for Male and Female and age 25-3	NS_A0A04	05040	4	N
Total periods of non-employment for separations for Male and Female and age 35-4	NS_A0A05	05052	4	N
Total periods of non-employment for separations for Male and Female and age 45-5	NS_A0A06	05064	4	N
Total periods of non-employment for separations for Male and Female and age 55-6	NS_A0A07	05076	4	N
Total periods of non-employment for separations for Male and Female and age 65-9	NS_A0A08	05088	4	N
Total periods of non-employment for separations for Male and age 14-18	NS_A1A01	05008	4	N
Total periods of non-employment for separations for Male and age 14-99	NS_A1A00	04996	4	N
Total periods of non-employment for separations for Male and age 19-21	NS_A1A02	05020	4	N
Total periods of non-employment for separations for Male and age 22-24	NS_A1A03	05032	4	N
Total periods of non-employment for separations for Male and age 25-34	NS_A1A04	05044	4	N
Total periods of non-employment for separations for Male and age 35-44	NS_A1A05	05056	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
Total periods of non-employment for separations for Male and age 45-54	NS_A1A06	05068	4	N
Total periods of non-employment for separations for Male and age 55-64	NS_A1A07	05080	4	N
Total periods of non-employment for separations for Male and age 65-99	NS_A1A08	05092	4	N
WIB code, wwwwww	LEG_WIB	07519	6	A/N
Weight such that weighted sum of B_UI = sum(month1_BLS)	QWI_UNIT_WEIGHT	00000	8	N
Year YYYY	YEAR	07534	3	N
lnwb*lnwb for Female and age 14-18	LNWB2_A2A01	05660	4	N
lnwb*lnwb for Female and age 14-99	LNWB2_A2A00	05648	4	N
lnwb*lnwb for Female and age 19-21	LNWB2_A2A02	05672	4	N
lnwb*lnwb for Female and age 22-24	LNWB2_A2A03	05684	4	N
lnwb*lnwb for Female and age 25-34	LNWB2_A2A04	05696	4	N
lnwb*lnwb for Female and age 35-44	LNWB2_A2A05	05708	4	N
lnwb*lnwb for Female and age 45-54	LNWB2_A2A06	05720	4	N
lnwb*lnwb for Female and age 55-64	LNWB2_A2A07	05732	4	N
lnwb*lnwb for Female and age 65-99	LNWB2_A2A08	05744	4	N
lnwb*lnwb for Male and Female and age 14-18	LNWB2_A0A01	05652	4	N
lnwb*lnwb for Male and Female and age 14-99	LNWB2_A0A00	05640	4	N
lnwb*lnwb for Male and Female and age 19-21	LNWB2_A0A02	05664	4	N
lnwb*lnwb for Male and Female and age 22-24	LNWB2_A0A03	05676	4	N
lnwb*lnwb for Male and Female and age 25-34	LNWB2_A0A04	05688	4	N
lnwb*lnwb for Male and Female and age 35-44	LNWB2_A0A05	05700	4	N
lnwb*lnwb for Male and Female and age 45-54	LNWB2_A0A06	05712	4	N
lnwb*lnwb for Male and Female and age 55-64	LNWB2_A0A07	05724	4	N
lnwb*lnwb for Male and Female and age 65-99	LNWB2_A0A08	05736	4	N
lnwb*lnwb for Male and age 14-18	LNWB2_A1A01	05656	4	N
lnwb*lnwb for Male and age 14-99	LNWB2_A1A00	05644	4	N
lnwb*lnwb for Male and age 19-21	LNWB2_A1A02	05668	4	N
lnwb*lnwb for Male and age 22-24	LNWB2_A1A03	05680	4	N
lnwb*lnwb for Male and age 25-34	LNWB2_A1A04	05692	4	N
lnwb*lnwb for Male and age 35-44	LNWB2_A1A05	05704	4	N
lnwb*lnwb for Male and age 45-54	LNWB2_A1A06	05716	4	N
lnwb*lnwb for Male and age 55-64	LNWB2_A1A07	05728	4	N
lnwb*lnwb for Male and age 65-99	LNWB2_A1A08	05740	4	N
lnwb*lnwblg for Female and age 14-18	LNWB_LNWBLG_A2A01	05768	4	N
lnwb*lnwblg for Female and age 14-99	LNWB_LNWBLG_A2A00	05756	4	N
lnwb*lnwblg for Female and age 19-21	LNWB_LNWBLG_A2A02	05780	4	N
lnwb*lnwblg for Female and age 22-24	LNWB_LNWBLG_A2A03	05792	4	N
lnwb*lnwblg for Female and age 25-34	LNWB_LNWBLG_A2A04	05804	4	N
lnwb*lnwblg for Female and age 35-44	LNWB_LNWBLG_A2A05	05816	4	N
lnwb*lnwblg for Female and age 45-54	LNWB_LNWBLG_A2A06	05828	4	N
lnwb*lnwblg for Female and age 55-64	LNWB_LNWBLG_A2A07	05840	4	N
lnwb*lnwblg for Female and age 65-99	LNWB_LNWBLG_A2A08	05852	4	N
lnwb*lnwblg for Male and Female and age 14-18	LNWB_LNWBLG_A0A01	05760	4	N
lnwb*lnwblg for Male and Female and age 14-99	LNWB_LNWBLG_A0A00	05748	4	N
lnwb*lnwblg for Male and Female and age 19-21	LNWB_LNWBLG_A0A02	05772	4	N
lnwb*lnwblg for Male and Female and age 22-24	LNWB_LNWBLG_A0A03	05784	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
lnwb*lnwblg for Male and Female and age 25-34	LNWB_LNWBLG_A0A04	05796	4	N
lnwb*lnwblg for Male and Female and age 35-44	LNWB_LNWBLG_A0A05	05808	4	N
lnwb*lnwblg for Male and Female and age 45-54	LNWB_LNWBLG_A0A06	05820	4	N
lnwb*lnwblg for Male and Female and age 55-64	LNWB_LNWBLG_A0A07	05832	4	N
lnwb*lnwblg for Male and Female and age 65-99	LNWB_LNWBLG_A0A08	05844	4	N
lnwb*lnwblg for Male and age 14-18	LNWB_LNWBLG_A1A01	05764	4	N
lnwb*lnwblg for Male and age 14-99	LNWB_LNWBLG_A1A00	05752	4	N
lnwb*lnwblg for Male and age 19-21	LNWB_LNWBLG_A1A02	05776	4	N
lnwb*lnwblg for Male and age 22-24	LNWB_LNWBLG_A1A03	05788	4	N
lnwb*lnwblg for Male and age 25-34	LNWB_LNWBLG_A1A04	05800	4	N
lnwb*lnwblg for Male and age 35-44	LNWB_LNWBLG_A1A05	05812	4	N
lnwb*lnwblg for Male and age 45-54	LNWB_LNWBLG_A1A06	05824	4	N
lnwb*lnwblg for Male and age 55-64	LNWB_LNWBLG_A1A07	05836	4	N
lnwb*lnwblg for Male and age 65-99	LNWB_LNWBLG_A1A08	05848	4	N
lnwblg*lnwblg for Female and age 14-18	LNWBLG2_A2A01	05876	4	N
lnwblg*lnwblg for Female and age 14-99	LNWBLG2_A2A00	05864	4	N
lnwblg*lnwblg for Female and age 19-21	LNWBLG2_A2A02	05888	4	N
lnwblg*lnwblg for Female and age 22-24	LNWBLG2_A2A03	05900	4	N
lnwblg*lnwblg for Female and age 25-34	LNWBLG2_A2A04	05912	4	N
lnwblg*lnwblg for Female and age 35-44	LNWBLG2_A2A05	05924	4	N
lnwblg*lnwblg for Female and age 45-54	LNWBLG2_A2A06	05936	4	N
lnwblg*lnwblg for Female and age 55-64	LNWBLG2_A2A07	05948	4	N
lnwblg*lnwblg for Female and age 65-99	LNWBLG2_A2A08	05960	4	N
lnwblg*lnwblg for Male and Female and age 14-18	LNWBLG2_A0A01	05868	4	N
lnwblg*lnwblg for Male and Female and age 14-99	LNWBLG2_A0A00	05856	4	N
lnwblg*lnwblg for Male and Female and age 19-21	LNWBLG2_A0A02	05880	4	N
lnwblg*lnwblg for Male and Female and age 22-24	LNWBLG2_A0A03	05892	4	N
lnwblg*lnwblg for Male and Female and age 25-34	LNWBLG2_A0A04	05904	4	N
lnwblg*lnwblg for Male and Female and age 35-44	LNWBLG2_A0A05	05916	4	N
lnwblg*lnwblg for Male and Female and age 45-54	LNWBLG2_A0A06	05928	4	N
lnwblg*lnwblg for Male and Female and age 55-64	LNWBLG2_A0A07	05940	4	N
lnwblg*lnwblg for Male and Female and age 65-99	LNWBLG2_A0A08	05952	4	N
lnwblg*lnwblg for Male and age 14-18	LNWBLG2_A1A01	05872	4	N
lnwblg*lnwblg for Male and age 14-99	LNWBLG2_A1A00	05860	4	N
lnwblg*lnwblg for Male and age 19-21	LNWBLG2_A1A02	05884	4	N
lnwblg*lnwblg for Male and age 22-24	LNWBLG2_A1A03	05896	4	N
lnwblg*lnwblg for Male and age 25-34	LNWBLG2_A1A04	05908	4	N
lnwblg*lnwblg for Male and age 35-44	LNWBLG2_A1A05	05920	4	N
lnwblg*lnwblg for Male and age 45-54	LNWBLG2_A1A06	05932	4	N
lnwblg*lnwblg for Male and age 55-64	LNWBLG2_A1A07	05944	4	N
lnwblg*lnwblg for Male and age 65-99	LNWBLG2_A1A08	05956	4	N
lnwe*lnwe for Female and age 14-18	LNWE2_A2A01	06200	4	N
lnwe*lnwe for Female and age 14-99	LNWE2_A2A00	06188	4	N
lnwe*lnwe for Female and age 19-21	LNWE2_A2A02	06212	4	N
lnwe*lnwe for Female and age 22-24	LNWE2_A2A03	06224	4	N
lnwe*lnwe for Female and age 25-34	LNWE2_A2A04	06236	4	N
lnwe*lnwe for Female and age 35-44	LNWE2_A2A05	06248	4	N
lnwe*lnwe for Female and age 45-54	LNWE2_A2A06	06260	4	N
lnwe*lnwe for Female and age 55-64	LNWE2_A2A07	06272	4	N
lnwe*lnwe for Female and age 65-99	LNWE2_A2A08	06284	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
lnwe*lnwe for Male and Female and age 14-18	LNWE2_A0A01	06192	4	N
lnwe*lnwe for Male and Female and age 14-99	LNWE2_A0A00	06180	4	N
lnwe*lnwe for Male and Female and age 19-21	LNWE2_A0A02	06204	4	N
lnwe*lnwe for Male and Female and age 22-24	LNWE2_A0A03	06216	4	N
lnwe*lnwe for Male and Female and age 25-34	LNWE2_A0A04	06228	4	N
lnwe*lnwe for Male and Female and age 35-44	LNWE2_A0A05	06240	4	N
lnwe*lnwe for Male and Female and age 45-54	LNWE2_A0A06	06252	4	N
lnwe*lnwe for Male and Female and age 55-64	LNWE2_A0A07	06264	4	N
lnwe*lnwe for Male and Female and age 65-99	LNWE2_A0A08	06276	4	N
lnwe*lnwe for Male and age 14-18	LNWE2_A1A01	06196	4	N
lnwe*lnwe for Male and age 14-99	LNWE2_A1A00	06184	4	N
lnwe*lnwe for Male and age 19-21	LNWE2_A1A02	06208	4	N
lnwe*lnwe for Male and age 22-24	LNWE2_A1A03	06220	4	N
lnwe*lnwe for Male and age 25-34	LNWE2_A1A04	06232	4	N
lnwe*lnwe for Male and age 35-44	LNWE2_A1A05	06244	4	N
lnwe*lnwe for Male and age 45-54	LNWE2_A1A06	06256	4	N
lnwe*lnwe for Male and age 55-64	LNWE2_A1A07	06268	4	N
lnwe*lnwe for Male and age 65-99	LNWE2_A1A08	06280	4	N
lnwe*lnweld for Female and age 14-18	LNWE_LNWELD_A2A01	06308	4	N
lnwe*lnweld for Female and age 14-99	LNWE_LNWELD_A2A00	06296	4	N
lnwe*lnweld for Female and age 19-21	LNWE_LNWELD_A2A02	06320	4	N
lnwe*lnweld for Female and age 22-24	LNWE_LNWELD_A2A03	06332	4	N
lnwe*lnweld for Female and age 25-34	LNWE_LNWELD_A2A04	06344	4	N
lnwe*lnweld for Female and age 35-44	LNWE_LNWELD_A2A05	06356	4	N
lnwe*lnweld for Female and age 45-54	LNWE_LNWELD_A2A06	06368	4	N
lnwe*lnweld for Female and age 55-64	LNWE_LNWELD_A2A07	06380	4	N
lnwe*lnweld for Female and age 65-99	LNWE_LNWELD_A2A08	06392	4	N
lnwe*lnweld for Male and Female and age 14-18	LNWE_LNWELD_A0A01	06300	4	N
lnwe*lnweld for Male and Female and age 14-99	LNWE_LNWELD_A0A00	06288	4	N
lnwe*lnweld for Male and Female and age 19-21	LNWE_LNWELD_A0A02	06312	4	N
lnwe*lnweld for Male and Female and age 22-24	LNWE_LNWELD_A0A03	06324	4	N
lnwe*lnweld for Male and Female and age 25-34	LNWE_LNWELD_A0A04	06336	4	N
lnwe*lnweld for Male and Female and age 35-44	LNWE_LNWELD_A0A05	06348	4	N
lnwe*lnweld for Male and Female and age 45-54	LNWE_LNWELD_A0A06	06360	4	N
lnwe*lnweld for Male and Female and age 55-64	LNWE_LNWELD_A0A07	06372	4	N
lnwe*lnweld for Male and Female and age 65-99	LNWE_LNWELD_A0A08	06384	4	N
lnwe*lnweld for Male and age 14-18	LNWE_LNWELD_A1A01	06304	4	N
lnwe*lnweld for Male and age 14-99	LNWE_LNWELD_A1A00	06292	4	N
lnwe*lnweld for Male and age 19-21	LNWE_LNWELD_A1A02	06316	4	N
lnwe*lnweld for Male and age 22-24	LNWE_LNWELD_A1A03	06328	4	N
lnwe*lnweld for Male and age 25-34	LNWE_LNWELD_A1A04	06340	4	N
lnwe*lnweld for Male and age 35-44	LNWE_LNWELD_A1A05	06352	4	N
lnwe*lnweld for Male and age 45-54	LNWE_LNWELD_A1A06	06364	4	N
lnwe*lnweld for Male and age 55-64	LNWE_LNWELD_A1A07	06376	4	N
lnwe*lnweld for Male and age 65-99	LNWE_LNWELD_A1A08	06388	4	N
lnweld*lnweld for Female and age 14-18	LNWELD2_A2A01	06416	4	N
lnweld*lnweld for Female and age 14-99	LNWELD2_A2A00	06404	4	N
lnweld*lnweld for Female and age 19-21	LNWELD2_A2A02	06428	4	N
lnweld*lnweld for Female and age 22-24	LNWELD2_A2A03	06440	4	N
lnweld*lnweld for Female and age 25-34	LNWELD2_A2A04	06452	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
lnweld*lnweld for Female and age 35-44	LNWELD2_A2A05	06464	4	N
lnweld*lnweld for Female and age 45-54	LNWELD2_A2A06	06476	4	N
lnweld*lnweld for Female and age 55-64	LNWELD2_A2A07	06488	4	N
lnweld*lnweld for Female and age 65-99	LNWELD2_A2A08	06500	4	N
lnweld*lnweld for Male and Female and age 14-18	LNWELD2_A0A01	06408	4	N
lnweld*lnweld for Male and Female and age 14-99	LNWELD2_A0A00	06396	4	N
lnweld*lnweld for Male and Female and age 19-21	LNWELD2_A0A02	06420	4	N
lnweld*lnweld for Male and Female and age 22-24	LNWELD2_A0A03	06432	4	N
lnweld*lnweld for Male and Female and age 25-34	LNWELD2_A0A04	06444	4	N
lnweld*lnweld for Male and Female and age 35-44	LNWELD2_A0A05	06456	4	N
lnweld*lnweld for Male and Female and age 45-54	LNWELD2_A0A06	06468	4	N
lnweld*lnweld for Male and Female and age 55-64	LNWELD2_A0A07	06480	4	N
lnweld*lnweld for Male and Female and age 65-99	LNWELD2_A0A08	06492	4	N
lnweld*lnweld for Male and age 14-18	LNWELD2_A1A01	06412	4	N
lnweld*lnweld for Male and age 14-99	LNWELD2_A1A00	06400	4	N
lnweld*lnweld for Male and age 19-21	LNWELD2_A1A02	06424	4	N
lnweld*lnweld for Male and age 22-24	LNWELD2_A1A03	06436	4	N
lnweld*lnweld for Male and age 25-34	LNWELD2_A1A04	06448	4	N
lnweld*lnweld for Male and age 35-44	LNWELD2_A1A05	06460	4	N
lnweld*lnweld for Male and age 45-54	LNWELD2_A1A06	06472	4	N
lnweld*lnweld for Male and age 55-64	LNWELD2_A1A07	06484	4	N
lnweld*lnweld for Male and age 65-99	LNWELD2_A1A08	06496	4	N
lnwf*lnwf for Female and age 14-18	LNWF2_A2A01	06848	4	N
lnwf*lnwf for Female and age 14-99	LNWF2_A2A00	06836	4	N
lnwf*lnwf for Female and age 19-21	LNWF2_A2A02	06860	4	N
lnwf*lnwf for Female and age 22-24	LNWF2_A2A03	06872	4	N
lnwf*lnwf for Female and age 25-34	LNWF2_A2A04	06884	4	N
lnwf*lnwf for Female and age 35-44	LNWF2_A2A05	06896	4	N
lnwf*lnwf for Female and age 45-54	LNWF2_A2A06	06908	4	N
lnwf*lnwf for Female and age 55-64	LNWF2_A2A07	06920	4	N
lnwf*lnwf for Female and age 65-99	LNWF2_A2A08	06932	4	N
lnwf*lnwf for Male and Female and age 14-18	LNWF2_A0A01	06840	4	N
lnwf*lnwf for Male and Female and age 14-99	LNWF2_A0A00	06828	4	N
lnwf*lnwf for Male and Female and age 19-21	LNWF2_A0A02	06852	4	N
lnwf*lnwf for Male and Female and age 22-24	LNWF2_A0A03	06864	4	N
lnwf*lnwf for Male and Female and age 25-34	LNWF2_A0A04	06876	4	N
lnwf*lnwf for Male and Female and age 35-44	LNWF2_A0A05	06888	4	N
lnwf*lnwf for Male and Female and age 45-54	LNWF2_A0A06	06900	4	N
lnwf*lnwf for Male and Female and age 55-64	LNWF2_A0A07	06912	4	N
lnwf*lnwf for Male and Female and age 65-99	LNWF2_A0A08	06924	4	N
lnwf*lnwf for Male and age 14-18	LNWF2_A1A01	06844	4	N
lnwf*lnwf for Male and age 14-99	LNWF2_A1A00	06832	4	N
lnwf*lnwf for Male and age 19-21	LNWF2_A1A02	06856	4	N
lnwf*lnwf for Male and age 22-24	LNWF2_A1A03	06868	4	N
lnwf*lnwf for Male and age 25-34	LNWF2_A1A04	06880	4	N
lnwf*lnwf for Male and age 35-44	LNWF2_A1A05	06892	4	N
lnwf*lnwf for Male and age 45-54	LNWF2_A1A06	06904	4	N
lnwf*lnwf for Male and age 55-64	LNWF2_A1A07	06916	4	N
lnwf*lnwf for Male and age 65-99	LNWF2_A1A08	06928	4	N
lnwf*lnwfld for Female and age 14-18	LNWF_LNWFLD_A2A01	07172	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
lnwf*lnwfld for Female and age 14-99	LNWF_LNWFLD_A2A00	07160	4	N
lnwf*lnwfld for Female and age 19-21	LNWF_LNWFLD_A2A02	07184	4	N
lnwf*lnwfld for Female and age 22-24	LNWF_LNWFLD_A2A03	07196	4	N
lnwf*lnwfld for Female and age 25-34	LNWF_LNWFLD_A2A04	07208	4	N
lnwf*lnwfld for Female and age 35-44	LNWF_LNWFLD_A2A05	07220	4	N
lnwf*lnwfld for Female and age 45-54	LNWF_LNWFLD_A2A06	07232	4	N
lnwf*lnwfld for Female and age 55-64	LNWF_LNWFLD_A2A07	07244	4	N
lnwf*lnwfld for Female and age 65-99	LNWF_LNWFLD_A2A08	07256	4	N
lnwf*lnwfld for Male and Female and age 14-18	LNWF_LNWFLD_A0A01	07164	4	N
lnwf*lnwfld for Male and Female and age 14-99	LNWF_LNWFLD_A0A00	07152	4	N
lnwf*lnwfld for Male and Female and age 19-21	LNWF_LNWFLD_A0A02	07176	4	N
lnwf*lnwfld for Male and Female and age 22-24	LNWF_LNWFLD_A0A03	07188	4	N
lnwf*lnwfld for Male and Female and age 25-34	LNWF_LNWFLD_A0A04	07200	4	N
lnwf*lnwfld for Male and Female and age 35-44	LNWF_LNWFLD_A0A05	07212	4	N
lnwf*lnwfld for Male and Female and age 45-54	LNWF_LNWFLD_A0A06	07224	4	N
lnwf*lnwfld for Male and Female and age 55-64	LNWF_LNWFLD_A0A07	07236	4	N
lnwf*lnwfld for Male and Female and age 65-99	LNWF_LNWFLD_A0A08	07248	4	N
lnwf*lnwfld for Male and age 14-18	LNWF_LNWFLD_A1A01	07168	4	N
lnwf*lnwfld for Male and age 14-99	LNWF_LNWFLD_A1A00	07156	4	N
lnwf*lnwfld for Male and age 19-21	LNWF_LNWFLD_A1A02	07180	4	N
lnwf*lnwfld for Male and age 22-24	LNWF_LNWFLD_A1A03	07192	4	N
lnwf*lnwfld for Male and age 25-34	LNWF_LNWFLD_A1A04	07204	4	N
lnwf*lnwfld for Male and age 35-44	LNWF_LNWFLD_A1A05	07216	4	N
lnwf*lnwfld for Male and age 45-54	LNWF_LNWFLD_A1A06	07228	4	N
lnwf*lnwfld for Male and age 55-64	LNWF_LNWFLD_A1A07	07240	4	N
lnwf*lnwfld for Male and age 65-99	LNWF_LNWFLD_A1A08	07252	4	N
lnwf*lnwflg for Female and age 14-18	LNWF_LNWFLG_A2A01	07280	4	N
lnwf*lnwflg for Female and age 14-99	LNWF_LNWFLG_A2A00	07268	4	N
lnwf*lnwflg for Female and age 19-21	LNWF_LNWFLG_A2A02	07292	4	N
lnwf*lnwflg for Female and age 22-24	LNWF_LNWFLG_A2A03	07304	4	N
lnwf*lnwflg for Female and age 25-34	LNWF_LNWFLG_A2A04	07316	4	N
lnwf*lnwflg for Female and age 35-44	LNWF_LNWFLG_A2A05	07328	4	N
lnwf*lnwflg for Female and age 45-54	LNWF_LNWFLG_A2A06	07340	4	N
lnwf*lnwflg for Female and age 55-64	LNWF_LNWFLG_A2A07	07352	4	N
lnwf*lnwflg for Female and age 65-99	LNWF_LNWFLG_A2A08	07364	4	N
lnwf*lnwflg for Male and Female and age 14-18	LNWF_LNWFLG_A0A01	07272	4	N
lnwf*lnwflg for Male and Female and age 14-99	LNWF_LNWFLG_A0A00	07260	4	N
lnwf*lnwflg for Male and Female and age 19-21	LNWF_LNWFLG_A0A02	07284	4	N
lnwf*lnwflg for Male and Female and age 22-24	LNWF_LNWFLG_A0A03	07296	4	N
lnwf*lnwflg for Male and Female and age 25-34	LNWF_LNWFLG_A0A04	07308	4	N
lnwf*lnwflg for Male and Female and age 35-44	LNWF_LNWFLG_A0A05	07320	4	N
lnwf*lnwflg for Male and Female and age 45-54	LNWF_LNWFLG_A0A06	07332	4	N
lnwf*lnwflg for Male and Female and age 55-64	LNWF_LNWFLG_A0A07	07344	4	N
lnwf*lnwflg for Male and Female and age 65-99	LNWF_LNWFLG_A0A08	07356	4	N
lnwf*lnwflg for Male and age 14-18	LNWF_LNWFLG_A1A01	07276	4	N
lnwf*lnwflg for Male and age 14-99	LNWF_LNWFLG_A1A00	07264	4	N
lnwf*lnwflg for Male and age 19-21	LNWF_LNWFLG_A1A02	07288	4	N
lnwf*lnwflg for Male and age 22-24	LNWF_LNWFLG_A1A03	07300	4	N
lnwf*lnwflg for Male and age 25-34	LNWF_LNWFLG_A1A04	07312	4	N
lnwf*lnwflg for Male and age 35-44	LNWF_LNWFLG_A1A05	07324	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
lnwf*lnwflg for Male and age 45-54	LNWF_LNWFLG_A1A06	07336	4	N
lnwf*lnwflg for Male and age 55-64	LNWF_LNWFLG_A1A07	07348	4	N
lnwf*lnwflg for Male and age 65-99	LNWF_LNWFLG_A1A08	07360	4	N
lnwfld*lnwfld for Female and age 14-18	LNWFLD2_A2A01	06956	4	N
lnwfld*lnwfld for Female and age 14-99	LNWFLD2_A2A00	06944	4	N
lnwfld*lnwfld for Female and age 19-21	LNWFLD2_A2A02	06968	4	N
lnwfld*lnwfld for Female and age 22-24	LNWFLD2_A2A03	06980	4	N
lnwfld*lnwfld for Female and age 25-34	LNWFLD2_A2A04	06992	4	N
lnwfld*lnwfld for Female and age 35-44	LNWFLD2_A2A05	07004	4	N
lnwfld*lnwfld for Female and age 45-54	LNWFLD2_A2A06	07016	4	N
lnwfld*lnwfld for Female and age 55-64	LNWFLD2_A2A07	07028	4	N
lnwfld*lnwfld for Female and age 65-99	LNWFLD2_A2A08	07040	4	N
lnwfld*lnwfld for Male and Female and age 14-18	LNWFLD2_A0A01	06948	4	N
lnwfld*lnwfld for Male and Female and age 14-99	LNWFLD2_A0A00	06936	4	N
lnwfld*lnwfld for Male and Female and age 19-21	LNWFLD2_A0A02	06960	4	N
lnwfld*lnwfld for Male and Female and age 22-24	LNWFLD2_A0A03	06972	4	N
lnwfld*lnwfld for Male and Female and age 25-34	LNWFLD2_A0A04	06984	4	N
lnwfld*lnwfld for Male and Female and age 35-44	LNWFLD2_A0A05	06996	4	N
lnwfld*lnwfld for Male and Female and age 45-54	LNWFLD2_A0A06	07008	4	N
lnwfld*lnwfld for Male and Female and age 55-64	LNWFLD2_A0A07	07020	4	N
lnwfld*lnwfld for Male and Female and age 65-99	LNWFLD2_A0A08	07032	4	N
lnwfld*lnwfld for Male and age 14-18	LNWFLD2_A1A01	06952	4	N
lnwfld*lnwfld for Male and age 14-99	LNWFLD2_A1A00	06940	4	N
lnwfld*lnwfld for Male and age 19-21	LNWFLD2_A1A02	06964	4	N
lnwfld*lnwfld for Male and age 22-24	LNWFLD2_A1A03	06976	4	N
lnwfld*lnwfld for Male and age 25-34	LNWFLD2_A1A04	06988	4	N
lnwfld*lnwfld for Male and age 35-44	LNWFLD2_A1A05	07000	4	N
lnwfld*lnwfld for Male and age 45-54	LNWFLD2_A1A06	07012	4	N
lnwfld*lnwfld for Male and age 55-64	LNWFLD2_A1A07	07024	4	N
lnwfld*lnwfld for Male and age 65-99	LNWFLD2_A1A08	07036	4	N
lnwfld*lnwflg for Female and age 14-18	LNWFLD_LNWFLG_A2A01	07388	4	N
lnwfld*lnwflg for Female and age 14-99	LNWFLD_LNWFLG_A2A00	07376	4	N
lnwfld*lnwflg for Female and age 19-21	LNWFLD_LNWFLG_A2A02	07400	4	N
lnwfld*lnwflg for Female and age 22-24	LNWFLD_LNWFLG_A2A03	07412	4	N
lnwfld*lnwflg for Female and age 25-34	LNWFLD_LNWFLG_A2A04	07424	4	N
lnwfld*lnwflg for Female and age 35-44	LNWFLD_LNWFLG_A2A05	07436	4	N
lnwfld*lnwflg for Female and age 45-54	LNWFLD_LNWFLG_A2A06	07448	4	N
lnwfld*lnwflg for Female and age 55-64	LNWFLD_LNWFLG_A2A07	07460	4	N
lnwfld*lnwflg for Female and age 65-99	LNWFLD_LNWFLG_A2A08	07472	4	N
lnwfld*lnwflg for Male and Female and age 14-18	LNWFLD_LNWFLG_A0A01	07380	4	N
lnwfld*lnwflg for Male and Female and age 14-99	LNWFLD_LNWFLG_A0A00	07368	4	N
lnwfld*lnwflg for Male and Female and age 19-21	LNWFLD_LNWFLG_A0A02	07392	4	N
lnwfld*lnwflg for Male and Female and age 22-24	LNWFLD_LNWFLG_A0A03	07404	4	N
lnwfld*lnwflg for Male and Female and age 25-34	LNWFLD_LNWFLG_A0A04	07416	4	N
lnwfld*lnwflg for Male and Female and age 35-44	LNWFLD_LNWFLG_A0A05	07428	4	N
lnwfld*lnwflg for Male and Female and age 45-54	LNWFLD_LNWFLG_A0A06	07440	4	N
lnwfld*lnwflg for Male and Female and age 55-64	LNWFLD_LNWFLG_A0A07	07452	4	N
lnwfld*lnwflg for Male and Female and age 65-99	LNWFLD_LNWFLG_A0A08	07464	4	N
lnwfld*lnwflg for Male and age 14-18	LNWFLD_LNWFLG_A1A01	07384	4	N
lnwfld*lnwflg for Male and age 14-99	LNWFLD_LNWFLG_A1A00	07372	4	N

Field name	Data dictionary reference name	Starting position	Field size	Data type
lnwfld*lnwflg for Male and age 19-21	LNWFLD_LNWFLG_A1A02	07396	4	N
lnwfld*lnwflg for Male and age 22-24	LNWFLD_LNWFLG_A1A03	07408	4	N
lnwfld*lnwflg for Male and age 25-34	LNWFLD_LNWFLG_A1A04	07420	4	N
lnwfld*lnwflg for Male and age 35-44	LNWFLD_LNWFLG_A1A05	07432	4	N
lnwfld*lnwflg for Male and age 45-54	LNWFLD_LNWFLG_A1A06	07444	4	N
lnwfld*lnwflg for Male and age 55-64	LNWFLD_LNWFLG_A1A07	07456	4	N
lnwfld*lnwflg for Male and age 65-99	LNWFLD_LNWFLG_A1A08	07468	4	N
lnwflg*lnwflg for Female and age 14-18	LNWFLG2_A2A01	07064	4	N
lnwflg*lnwflg for Female and age 14-99	LNWFLG2_A2A00	07052	4	N
lnwflg*lnwflg for Female and age 19-21	LNWFLG2_A2A02	07076	4	N
lnwflg*lnwflg for Female and age 22-24	LNWFLG2_A2A03	07088	4	N
lnwflg*lnwflg for Female and age 25-34	LNWFLG2_A2A04	07100	4	N
lnwflg*lnwflg for Female and age 35-44	LNWFLG2_A2A05	07112	4	N
lnwflg*lnwflg for Female and age 45-54	LNWFLG2_A2A06	07124	4	N
lnwflg*lnwflg for Female and age 55-64	LNWFLG2_A2A07	07136	4	N
lnwflg*lnwflg for Female and age 65-99	LNWFLG2_A2A08	07148	4	N
lnwflg*lnwflg for Male and Female and age 14-18	LNWFLG2_A0A01	07056	4	N
lnwflg*lnwflg for Male and Female and age 14-99	LNWFLG2_A0A00	07044	4	N
lnwflg*lnwflg for Male and Female and age 19-21	LNWFLG2_A0A02	07068	4	N
lnwflg*lnwflg for Male and Female and age 22-24	LNWFLG2_A0A03	07080	4	N
lnwflg*lnwflg for Male and Female and age 25-34	LNWFLG2_A0A04	07092	4	N
lnwflg*lnwflg for Male and Female and age 35-44	LNWFLG2_A0A05	07104	4	N
lnwflg*lnwflg for Male and Female and age 45-54	LNWFLG2_A0A06	07116	4	N
lnwflg*lnwflg for Male and Female and age 55-64	LNWFLG2_A0A07	07128	4	N
lnwflg*lnwflg for Male and Female and age 65-99	LNWFLG2_A0A08	07140	4	N
lnwflg*lnwflg for Male and age 14-18	LNWFLG2_A1A01	07060	4	N
lnwflg*lnwflg for Male and age 14-99	LNWFLG2_A1A00	07048	4	N
lnwflg*lnwflg for Male and age 19-21	LNWFLG2_A1A02	07072	4	N
lnwflg*lnwflg for Male and age 22-24	LNWFLG2_A1A03	07084	4	N
lnwflg*lnwflg for Male and age 25-34	LNWFLG2_A1A04	07096	4	N
lnwflg*lnwflg for Male and age 35-44	LNWFLG2_A1A05	07108	4	N
lnwflg*lnwflg for Male and age 45-54	LNWFLG2_A1A06	07120	4	N
lnwflg*lnwflg for Male and age 55-64	LNWFLG2_A1A07	07132	4	N
lnwflg*lnwflg for Male and age 65-99	LNWFLG2_A1A08	07144	4	N
qwi_wcf*qwi_unit_weight	QWI_FINAL_WEIGHT	00016	8	N

7.2.5 Summary information on datasets

Table 7.2: Number of observations for QWI

Group	Number of datafiles	Records (1000s)	Filesize (GB)
QWI	47	368,200	535

Table 7.3: List of data files for QWI, by state

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Alaska (ak)				
qwi_ak_seinunit	2000Q1	2008Q4	600	< 5
Alabama (al)				
qwi_al_seinunit	2001Q1	2008Q4	3,500	5
Arkansas (ar)				
qwi_ar_seinunit	2002Q3	2008Q4	1,800	< 5
Arizona (az)				
qwi_az_seinunit	2004Q1	2008Q4	2,400	< 5
California (ca)				
qwi_ca_seinunit	1991Q3	2008Q4	65,800	90
Colorado (co)				
qwi_co_seinunit	1993Q2	2008Q4	8,300	10
Delaware (de)				
qwi_de_seinunit	1998Q3	2008Q4	1,000	< 5
Florida (fl)				
qwi_fl_seinunit	1992Q4	2008Q4	27,100	40
Georgia (ga)				
qwi_ga_seinunit	1998Q1	2008Q4	9,400	15
Hawaii (hi)				
qwi_hi_seinunit	1995Q4	2008Q4	1,700	< 5
Iowa (ia)				
qwi_ia_seinunit	1998Q4	2008Q4	3,600	5
Idaho (id)				
qwi_id_seinunit	1991Q1	2008Q4	2,900	< 5
Illinois (il)				
qwi_il_seinunit	1990Q1	2008Q4	20,700	30
Indiana (in)				
qwi_in_seinunit	1998Q1	2008Q4	6,200	10
Kansas (ks)				
qwi_ks_seinunit	1993Q1	2008Q4	4,800	5
Kentucky (ky)				
qwi_ky_seinunit	2001Q1	2008Q4	2,900	< 5
Louisiana (la)				
qwi_la_seinunit	1995Q1	2008Q4	5,800	10
Maryland (md)				
qwi_md_seinunit	1990Q1	2008Q4	9,500	15
Maine (me)				
qwi_me_seinunit	1996Q1	2008Q4	2,100	< 5

(cont)

Table 7.3 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Michigan (mi)				
qwi_mi_seinunit	2000Q3	2008Q4	6,900	10
Minnesota (mn)				
qwi_mn_seinunit	1994Q3	2008Q4	6,900	10
Missouri (mo)				
qwi_mo_seinunit	1995Q1	2008Q4	8,500	15
Mississippi (ms)				
qwi_ms_seinunit	2003Q3	2008Q4	1,400	< 5
Montana (mt)				
qwi_mt_seinunit	1993Q1	2008Q4	2,100	< 5
North Carolina (nc)				
qwi_nc_seinunit	1992Q4	2008Q1	12,600	25
North Dakota (nd)				
qwi_nd_seinunit	1998Q1	2008Q4	1,000	< 5
Nebraska (ne)				
qwi_ne_seinunit	1999Q1	2008Q4	2,200	< 5
New Jersey (nj)				
qwi_nj_seinunit	1996Q1	2008Q4	10,900	15
New Mexico (nm)				
qwi_nm_seinunit	1995Q3	2008Q4	2,400	< 5
Nevada (nv)				
qwi_nv_seinunit	1998Q1	2008Q4	2,500	< 5
New York (ny)				
qwi_ny_seinunit	2000Q1	2008Q4	17,700	25
Ohio (oh)				
qwi_oh_seinunit	2000Q1	2008Q4	9,600	15
Oklahoma (ok)				
qwi_ok_seinunit	2000Q1	2008Q4	3,100	< 5
Oregon (or)				
qwi_or_seinunit	1991Q1	2008Q4	7,600	10
Pennsylvania (pa)				
qwi_pa_seinunit	1997Q1	2008Q4	14,600	20
Rhode Island (ri)				
qwi_ri_seinunit	1995Q1	2008Q4	1,700	< 5
South Carolina (sc)				
qwi_sc_seinunit	1998Q1	2008Q4	4,400	5
South Dakota (sd)				
qwi_sd_seinunit	1998Q1	2008Q4	1,100	< 5
Tennessee (tn)				
qwi_tn_seinunit	1998Q1	2008Q4	5,500	10
Texas (tx)				
qwi_tx_seinunit	1995Q1	2008Q4	27,400	40
Utah (ut)				
qwi_ut_seinunit	1999Q3	2008Q4	2,600	< 5
Virginia (va)				
qwi_va_seinunit	1998Q1	2008Q4	8,200	10
Vermont (vt)				
qwi_vt_seinunit	2000Q1	2008Q4	800	< 5

(cont)

Table 7.3 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Washington (wa)				
qwi_wa_seinunit	1990Q1	2008Q4	13,100	20
Wisconsin (wi)				
qwi_wi_seinunit	1990Q1	2008Q4	10,400	15
West Virginia (wv)				
qwi_wv_seinunit	1997Q1	2008Q4	2,200	< 5
Wyoming (wy)				
qwi_wy_seinunit	2001Q1	2008Q4	700	< 5

Number of files for each data set group and state. Aggregate size of all files in GB in parentheses.

7.3 NOTES

- Alabama (AL), Kansas (KS), and South Carolina (SC) are currently missing from data archive. A request has been put in to include them.

Chapter 8. Successor-Predecessor file (SPF)

8.1 OVERVIEW

The Successor-Predecessor File (SPF) is a suite of files providing intertemporal flow-based links based on wage records and administrative links. The file is not fully documented, researchers are advised to use the file with caution.

8.2 DETAILED DESCRIPTION

8.2.1 Definition of Successor-Predecessor

The successor-predecessor sequence creates four files. The primary files are the SPF (Successor-Predecessor File) which has a record for every link (whether that link is identified by employee flows from the UI wage records or from the successor-predecessor data on the ES-202) between SEINs, and the WSLF (Within-SEIN Links File) which has a record for every successor-predecessor link reported on the ES-202 between SEINUNITs within the same SEIN. The other files, SPH (PIK-SEIN History) are intermediate files used downstream by the sequence.

8.2.2 Update frequency

Quarterly.

8.2.3 Acquisition process

The Successor-Predecessor sequence waits for the creation of the ES-202 files and the EHF.

8.2.4 Processing description

First, we read the PIK-SEIN work history information from the EHF into simple character strings of 1's or 0's referring to whether or not the PIK has positive earnings at the SEIN in the quarter corresponding to the position in the character string. We then match up each end of job string experienced by a PIK with the beginning of job strings for that PIK at another SEIN which start in the same or subsequent quarter that the first job ends. We then sum up the number of such flows between each SEIN pair in a given quarter. If the number of transitioning employees and the SEINs involved satisfy certain criteria, then a link is recorded for that SEIN pair in that quarter. We then read in the successor-predecessor information from the ES-202 and divide the data into a within-SEIN links file and an across-SEIN links file. The across-SEIN links file is aggregated to the SEIN-level for comparability to the links formed with the UI wage records. Finally, the UI wage record links and the SEIN-level, ES-202 links are merged into one file.

8.3 DATA SET DESCRIPTIONS

Table 8.1: Number of observations for SPF

Group	Number of datafiles	Records (1000s)	Filesize (GB)
SPF	141	13,300	0

Table 8.2: List of data files for SPF, by state

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Sort order				
Alaska (ak)				
spf_ak	2000Q3	2008Q2	< 100	< 5
sein sein_succ qtime				
spf_ak_sph	2000Q1	2008Q4	< 100	n.a.
spf_ak_wslf	2000Q1	2008Q4	< 100	< 5
Alabama (al)				
spf_al	2001Q3	2008Q2	< 100	< 5
sein sein_succ qtime				
spf_al_sph	2001Q1	2008Q4	< 100	n.a.
spf_al_wslf	2001Q1	2008Q4	< 100	< 5
Arkansas (ar)				
spf_ar	2003Q1	2008Q2	< 100	< 5
sein sein_succ qtime				
spf_ar_sph	2002Q3	2008Q4	< 100	n.a.
spf_ar_wslf	2002Q3	2008Q4	< 100	< 5
Arizona (az)				
spf_az	2004Q3	2008Q2	< 100	< 5
sein sein_succ qtime				
spf_az_sph	2004Q1	2008Q4	< 100	n.a.
spf_az_wslf	2004Q1	2008Q4	< 100	< 5
California (ca)				
spf_ca	1991Q3	2008Q2	2,700	< 5
sein sein_succ qtime				
spf_ca_sph	1991Q1	2008Q4	< 100	n.a.
spf_ca_wslf	1991Q1	2008Q4	100	< 5
Colorado (co)				
spf_co	1990Q3	2008Q2	300	< 5
sein sein_succ qtime				
spf_co_sph	1990Q1	2008Q4	< 100	n.a.
spf_co_wslf	1990Q1	2008Q4	< 100	< 5
Delaware (de)				
spf_de	1997Q3	2008Q2	< 100	< 5
sein sein_succ qtime				
spf_de_sph	1997Q1	2008Q4	< 100	n.a.
spf_de_wslf	1997Q1	2008Q4	< 100	< 5
Florida (fl)				
spf_fl	1989Q3	2008Q2	1,100	< 5
sein sein_succ qtime				

(cont)

Table 8.2 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
spf_fl_sph	1989Q1	2008Q4	< 100	n.a.
spf_fl_wslf	1989Q1	2008Q4	< 100	< 5
Georgia (ga)				
spf_ga	1998Q3	2008Q2	300	< 5
	sein sein_succ qtime			
spf_ga_sph	1998Q1	2008Q4	< 100	n.a.
spf_ga_wslf	1998Q1	2008Q4	< 100	< 5
Hawaii (hi)				
spf_hi	1996Q2	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_hi_sph	1995Q4	2008Q4	< 100	n.a.
spf_hi_wslf	1995Q4	2008Q4	< 100	< 5
Iowa (ia)				
spf_ia	1990Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_ia_sph	1990Q1	2008Q4	< 100	n.a.
spf_ia_wslf	1990Q1	2008Q4	< 100	< 5
Idaho (id)				
spf_id	1991Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_id_sph	1991Q1	2008Q4	< 100	n.a.
spf_id_wslf	1991Q1	2008Q4	< 100	< 5
Illinois (il)				
spf_il	1990Q3	2008Q2	600	< 5
	sein sein_succ qtime			
spf_il_sph	1990Q1	2008Q4	< 100	n.a.
spf_il_wslf	1990Q1	2008Q4	< 100	< 5
Indiana (in)				
spf_in	1998Q3	2008Q2	200	< 5
	sein sein_succ qtime			
spf_in_sph	1998Q1	2008Q4	< 100	n.a.
spf_in_wslf	1998Q1	2008Q4	< 100	< 5
Kansas (ks)				
spf_ks	1990Q3	2008Q2	100	< 5
	sein sein_succ qtime			
spf_ks_sph	1990Q1	2008Q4	< 100	n.a.
spf_ks_wslf	1990Q1	2008Q4	< 100	< 5
Kentucky (ky)				
spf_ky	2001Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_ky_sph	2001Q1	2008Q4	< 100	n.a.
spf_ky_wslf	2001Q1	2008Q4	< 100	< 5
Louisiana (la)				
spf_la	1990Q3	2008Q2	500	< 5
	sein sein_succ qtime			
spf_la_sph	1990Q1	2008Q4	< 100	n.a.
spf_la_wslf	1990Q1	2008Q4	< 100	< 5
Maryland (md)				

(cont)

Table 8.2 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
spf_md	1990Q3	2008Q2	200	< 5
	sein sein_succ qtime			
spf_md_sph	1990Q1	2008Q4	< 100	n.a.
spf_md_wslf	1990Q1	2008Q4	< 100	< 5
Maine (me)				
spf_me	1996Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_me_sph	1996Q1	2008Q4	< 100	n.a.
spf_me_wslf	1996Q1	2008Q4	< 100	< 5
Michigan (mi)				
spf_mi	1998Q3	2008Q2	300	< 5
	sein sein_succ qtime			
spf_mi_sph	1998Q1	2008Q4	< 100	n.a.
spf_mi_wslf	1998Q1	2008Q4	< 100	< 5
Minnesota (mn)				
spf_mn	1995Q1	2008Q2	200	< 5
	sein sein_succ qtime			
spf_mn_sph	1994Q3	2008Q4	< 100	n.a.
spf_mn_wslf	1994Q3	2008Q4	< 100	< 5
Missouri (mo)				
spf_mo	1990Q3	2008Q2	200	< 5
	sein sein_succ qtime			
spf_mo_sph	1990Q1	2008Q4	< 100	n.a.
spf_mo_wslf	1990Q1	2008Q4	< 100	< 5
Mississippi (ms)				
spf_ms	2004Q1	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_ms_sph	2003Q3	2008Q4	< 100	n.a.
spf_ms_wslf	2003Q3	2008Q4	< 100	< 5
Montana (mt)				
spf_mt	1993Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_mt_sph	1993Q1	2008Q4	< 100	n.a.
spf_mt_wslf	1993Q1	2008Q4	< 100	< 5
North Carolina (nc)				
spf_nc	1990Q3	2007Q3	500	< 5
	sein sein_succ qtime			
spf_nc_sph	1990Q1	2008Q1	< 100	n.a.
spf_nc_wslf	1990Q1	2008Q1	< 100	< 5
North Dakota (nd)				
spf_nd	1998Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_nd_sph	1998Q1	2008Q4	< 100	n.a.
spf_nd_wslf	1998Q1	2008Q4	< 100	< 5
Nebraska (ne)				
spf_ne	1999Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_ne_sph	1999Q1	2008Q4	< 100	n.a.

(cont)

Table 8.2 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
spf_ne_wslf	1999Q1	2008Q4	< 100	< 5
New Jersey (nj)				
spf_nj	1995Q3	2008Q2	200	< 5
	sein sein_succ qtime			
spf_nj_sph	1995Q1	2008Q4	< 100	n.a.
spf_nj_wslf	1995Q1	2008Q4	< 100	< 5
New Mexico (nm)				
spf_nm	1990Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_nm_sph	1990Q1	2008Q4	< 100	n.a.
spf_nm_wslf	1990Q1	2008Q4	< 100	< 5
Nevada (nv)				
spf_nv	1998Q3	2008Q2	100	< 5
	sein sein_succ qtime			
spf_nv_sph	1998Q1	2008Q4	< 100	n.a.
spf_nv_wslf	1998Q1	2008Q4	< 100	< 5
New York (ny)				
spf_ny	1990Q3	2008Q2	700	< 5
	sein sein_succ qtime			
spf_ny_sph	1990Q1	2008Q4	< 100	n.a.
spf_ny_wslf	1990Q1	2008Q4	< 100	< 5
Ohio (oh)				
spf_oh	2000Q3	2008Q2	300	< 5
	sein sein_succ qtime			
spf_oh_sph	2000Q1	2008Q4	< 100	n.a.
spf_oh_wslf	2000Q1	2008Q4	< 100	< 5
Oklahoma (ok)				
spf_ok	1999Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_ok_sph	1999Q1	2008Q4	< 100	n.a.
spf_ok_wslf	1999Q1	2008Q4	< 100	< 5
Oregon (or)				
spf_or	1990Q3	2008Q2	200	< 5
	sein sein_succ qtime			
spf_or_sph	1990Q1	2008Q4	< 100	n.a.
spf_or_wslf	1990Q1	2008Q4	< 100	< 5
Pennsylvania (pa)				
spf_pa	1991Q3	2008Q2	500	< 5
	sein sein_succ qtime			
spf_pa_sph	1991Q1	2008Q4	< 100	n.a.
spf_pa_wslf	1991Q1	2008Q4	< 100	< 5
Rhode Island (ri)				
spf_ri	1990Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_ri_sph	1990Q1	2008Q4	< 100	n.a.
spf_ri_wslf	1990Q1	2008Q4	< 100	< 5
South Carolina (sc)				
spf_sc	1998Q3	2008Q2	100	< 5

(cont)

Table 8.2 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
	sein sein_succ qtime			
spf_sc_sph	1998Q1	2008Q4	< 100	n.a.
spf_sc_wslf	1998Q1	2008Q4	< 100	< 5
South Dakota (sd)				
spf_sd	1998Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_sd_sph	1998Q1	2008Q4	< 100	n.a.
spf_sd_wslf	1998Q1	2008Q4	< 100	< 5
Tennessee (tn)				
spf_tn	1998Q3	2008Q2	200	< 5
	sein sein_succ qtime			
spf_tn_sph	1998Q1	2008Q4	< 100	n.a.
spf_tn_wslf	1998Q1	2008Q4	< 100	< 5
Texas (tx)				
spf_tx	1990Q3	2008Q2	1,100	< 5
	sein sein_succ qtime			
spf_tx_sph	1990Q1	2008Q4	< 100	n.a.
spf_tx_wslf	1990Q1	2008Q4	< 100	< 5
Utah (ut)				
spf_ut	1990Q3	2008Q2	100	< 5
	sein sein_succ qtime			
spf_ut_sph	1990Q1	2008Q4	< 100	n.a.
spf_ut_wslf	1990Q1	2008Q4	< 100	< 5
Virginia (va)				
spf_va	1996Q1	2008Q2	200	< 5
	sein sein_succ qtime			
spf_va_sph	1995Q3	2008Q4	< 100	n.a.
spf_va_wslf	1995Q3	2008Q4	< 100	< 5
Vermont (vt)				
spf_vt	2000Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_vt_sph	2000Q1	2008Q4	< 100	n.a.
spf_vt_wslf	2000Q1	2008Q4	< 100	< 5
Washington (wa)				
spf_wa	1990Q3	2008Q2	500	< 5
	sein sein_succ qtime			
spf_wa_sph	1990Q1	2008Q4	< 100	n.a.
spf_wa_wslf	1990Q1	2008Q4	< 100	< 5
Wisconsin (wi)				
spf_wi	1990Q3	2008Q2	300	< 5
	sein sein_succ qtime			
spf_wi_sph	1990Q1	2008Q4	< 100	n.a.
spf_wi_wslf	1990Q1	2008Q4	< 100	< 5
West Virginia (wv)				
spf_wv	1990Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_wv_sph	1990Q1	2008Q4	< 100	n.a.

(cont)

Table 8.2 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
	Sort order			
spf_wv_wslf	1990Q1	2008Q4	< 100	< 5
Wyoming (wy)				
spf_wy	2001Q3	2008Q2	< 100	< 5
	sein sein_succ qtime			
spf_wy_sph	2001Q1	2008Q4	< 100	n.a.
spf_wy_wslf	2001Q1	2008Q4	< 100	< 5

Number of files for each data set group and state. Aggregate size of all files in GB in parentheses.

8.4 NOTES

- As of December 2010, the SPH file is missing from S2008 snapshot for all states.

Chapter 9.
Unit-to-Worker Impute - Job location impute (U2W)

9.1 OVERVIEW

The UI records underlying the LEHD Infrastructure files provide neither establishment identifiers (except for Minnesota), nor industry or geographic detail of the establishment, only a firm identifier. Between 60 and 70 percent of state-level employment is in single-unit employers (employers with only one establishment), for which a link through the firm identifier is sufficent to provide such detail. For the remaining 30 to 40 percent of employment, such links have to be imputed. The Unit-to-Worker Impute (U2W) file contains ten imputed establishments for each employee of a multi-unit employer. The file can be linked to other Census Bureau datasets through the PIK and the LEHD SEIN-SEINUNIT.

9.2 DETAILED DESCRIPTION

A primary objective of the QWI is to provide employment, job and worker flows, and wage measures at a very detailed levels of geography (place-of-work) and industry. The structure of the administrative data received by LEHD from state partners, however, poses a challenge to achieving this goal. QWI measures are primarily based on the processing of UI wage records which report, with the exception of Minnesota, only the legal employer (SEIN) of the workers. The ES-202 micro-data, however, are comprised of establishment-level records which provide the geographic and industry detail needed to produce the QWI. For employers operating only one establishment within a state, the assignment of establishment-level characteristics to UI wage records is straightforward because there is no distinction between the employer and the establishment. However, approximately 30 to 40 percent of state-level employment is concentrated in employers that operate more than one establishment in that state. For these multi-unit employers, the SEIN on workers' wage records identifies the legal employer in the ES-202 data, but not the employing establishment (place-of-work). Thus, establishment level characteristics–geography and industry, in particular–are missing data for these multi-unit job histories.

In order to impute establishment-level characteristics to job histories of multi-unit employers, a non-ignorable missing data model with multiple imputation was developed. The model imputes establishment-of-employment using two key characteristics available in the LEHD Infrastructure Files: 1) distance between place-of-work and place-of-residence and 2) the distribution of employment across establishments of multi-unit employers. The distance to work model is estimated using data from Minnesota, where both the SEIN and SEINUNIT identifiers appear on a UI wage record. Then, the posterior distribution of the parameters from this estimation, combined with the actual SEIN and SEINUNIT employment histories from the ES-202 data, are used for multiple imputation of the SEINUNIT associated with for workers in a given SEIN in the data from states other than Minnesota.[1] Emerging from this process is an output file, called the Unit-to-

[1]The actual SEINUNIT coded on the UI wage records is used for Minnesota, and would be used for any other state that provided such data. Note that there are occasional, and rare, discrepancies between the unit structure on the Minnesota wage records and the unit structure on the Minnesota ES-202 data for the same quarter. These discrepancies are resolved during the

Worker (U2W) file, containing ten imputed establishments for each worker of a multi-unit employer. These implicates are then used in the downstream processing of the QWI.

The U2W process relies on information from each of the four Infrastructure Files–ECF, GAL, EHF, and ICF–as well as the auxiliary SPF file. Within the ECF, the universe of multi-unit employers is identified. For these employers, the ECF also provides establishment-level employment, date-of-birth, and geocodes (which are acquired from the GAL). The SPF contains information on predecessor relationships which may lead to the revision of date-of-birth implied by the ECF. Finally, job histories in the EHF in conjunction with place-of-residence information stored in the ICF provide the necessary worker information needed to estimate and apply the imputation model.

9.2.1 A probability model for employment location

9.2.1.1 Definitions

Let $i = 1, ..., I$ index workers, $j = 1, ..., J$ index employers (SEINs), and $t = 1, ..., T$ index time (quarters). Let R_{jt} denote the number of active establishments at employer j in quarter t, let $\mathfrak{R} = \max_{j,t} R_{jt}$, and $r = 1, ..., \mathfrak{R}$ index establishments. Note that the index r is nested within j. Let N_{jrt} denote the quarter t employment of establishment r in employer j. Finally, if worker i was employed at employer j in t, denote by y_{ijt} the establishment at which the worker was employed.

Let $\mathcal{J}_t$ denote the set of employers active in quarter t, let $\mathcal{I}_{jt}$ denote the set of individuals employed at employer j in quarter t, let $\mathcal{R}_{jt}$ denote the set of active ($N_{jrt} > 0$) establishments at employer j in t, and let $\mathcal{R}^i_{jt} \subset \mathcal{R}_{jt}$ denote the set of active establishments that are feasible for worker i. Feasibility is defined as follows. An establishment $r \in \mathcal{R}^i_{jt}$ if $N_{jrs} > 0$ for every quarter s that i was employed at j.

9.2.1.2 The probability model

Let $p_{ijrt} = \Pr(y_{ijt} = r)$. At the core of the model is the probability statement:

$$p_{ijrt} = \frac{e^{\alpha_{jrt} + x'_{ijrt}\beta}}{\sum_{s \in \mathcal{R}^i_{jt}} e^{\alpha_{jst} + x'_{ijst}\beta}} \tag{9.1}$$

where α_{jrt} is a establishment- and quarter-specific effect, x_{ijrt} is a time-varying vector of characteristics of the worker and establishment, and β measures the effect of characteristics on the probability of being employed at a particular establishment. In the current implementation, x_{ijrt} is a linear spline in the (great-circle) distance between worker i's residence and the physical location of establishment r. The spline has knots at 25, 50, and 100 miles.

Using (9.1), the following likelihood is defined

$$p(y|\alpha, \beta, x) = \prod_{t=1}^{T} \prod_{j \in \mathcal{J}_t} \prod_{i \in \mathcal{I}_{jt}} \prod_{r \in \mathcal{R}^i_{jt}} (p_{ijrt})^{d_{ijrt}} \tag{9.2}$$

where

$$d_{ijrt} = \begin{cases} 1 & \text{if } y_{ijt} = r \\ 0 & \text{otherwise} \end{cases} \tag{9.3}$$

and where y is the appropriately-dimensioned vector of the outcome variables y_{ijt}, α is the appropriately-dimensioned vector of the α_{jrt}, and x is the appropriately-dimensioned matrix of characteristics x_{ijrt}. For α_{jrt}, a hierarchical Bayesian model based on employment counts N_{jrt} is specified.

initial processing of the Minnesota data in its state-specific readin procedures.

The object of interest is the joint posterior distribution of α and β. A uniform prior on β, $p(\beta) \propto 1$ is assumed. The characterization of $p(\alpha, \beta|x, y, N)$ is based on the factorization

$$\begin{aligned} p(\alpha, \beta|x, y, N) &= p(\alpha|N)\, p(\beta|\alpha, x, y) \\ &\propto p(\alpha|N)\, p(\beta)\, p(y|\alpha, \beta, x) \\ &\propto p(\alpha|N)\, p(y|\alpha, \beta, x)\,. \end{aligned} \tag{9.4}$$

Thus, the joint posterior (9.4) is completely characterized by the posterior of α and the likelihood of y in (9.2). Note (9.2) and (9.4) assume that the employment counts N affect employment location y only through the parameters α.

9.2.1.3 Estimation

The joint posterior $p(\alpha, \beta|x, y, N)$ is approximated at the posterior mode. In particular, we estimate the posterior mode of $p(\beta|\alpha, x, y)$ evaluated at the posterior mode of α. From these we compute the posterior modal values of the α_{jrt}, then, maximize the log posterior density

$$\log p(\beta|\alpha, x, y) \propto \sum_{t=1}^{T} \sum_{j \in \mathcal{J}_t} \sum_{i \in \mathcal{I}_{jt}} \sum_{r \in \mathcal{R}^i_{jt}} d_{ijrt} \left(\alpha_{jrt} + x'_{ijrt}\beta - \log \left(\sum_{s \in \mathcal{R}^i_{jt}} e^{\alpha_{jst} + x'_{ijst}\beta} \right) \right) \tag{9.5}$$

which is evaluated at the posterior modal values of the α_{jrt}, using a modified Newton-Raphson method. The mode-finding exercise is based on the gradient and Hessian of (9.5). In practice, (9.5) is estimated for three employer employment size classes: 1-100 employees, 101-500 employees, and greater than 500 employees, using data for Minnesota.

9.2.2 Imputing place of work

After estimating the probability model using Minnesota data, the posterior distribution of the estimated β parameters is combined with the entity specific posterior distribution of the α parameters in the imputation process for other states. A brief outline of the imputation method, as it relates to the probability model previously discussed, is provided in this section. Emphasis is placed on not only the imputation process itself, but also the preparation of input data.

9.2.2.1 Sketch of the imputation method

Ignoring temporal considerations, 10 implicates are generated as follows. First, using the posterior mean and variance of β estimated from the Minnesota data, we take 10 draws of β from the normal approximation (at the mode) to $p(\beta|\alpha, x, y)$. Next, using ES-202 employment counts for the establishments, we compute 10 values of α_{jt} based on the hierarchical model for these parameters. Note that these are draws from the exact posterior distribution of the α_{jrt}. The drawn values of α and β are used to draw 10 imputed values of place of work from the asymptotic approximation to the posterior predictive distribution

$$p(\tilde{y}|x, y) = \int \int p(\tilde{y}|\alpha, \beta, x, y)\, p(\alpha|N)\, p(\beta|\alpha, x, y)\, d\alpha d\beta. \tag{9.6}$$

9.2.2.2 Implementation

Establishment data Using state-level micro-data, the set of employers (SEINs) that ever operate more that one establishment in a given quarter is identified; these SEINs represent the set of ever-multi-unit employers defined above as the set $\mathcal{J}_t$. For each of these employers, its establishment-level records are identified. For each establishment, latitude and longitude coordinates, parent employer (SEIN) employment, and ES-202 month-one employment[2] for the entire history of the establishment are retained. Those establishments

[2]In rare instances where no ES-202 employment is available, an alternative employment measure based on UI wage record counts may be used.

with positive month-one employment in a given quarter characterize $\mathcal{R}_{jt}$, the set of all active establishments. An establishment birth date is identified and, in most cases, is the first quarter in the ES-202 time series in which the establishment has positive month-one employment. For some employers, predecessor relationships are identified in the SPF; in those instances, the establishment date-of-birth is adjusted to coincided with that of the predecessor's.

Worker data The EHF provides the earnings histories for employees of the ever-multi-unit employers. For each in-scope job (a worker-employer pair), one observation is generated for the *end* of each job spell, where a job spell is defined as a continuum of quarters of positive earnings for worker at a particular employer during which there are no more than 3 consecutive periods of non-positive earnings.[3] The start date of the job history is identified as the first quarter of positive earnings; the end date is the last date of positive earnings.[4] These job spells characterize the set $\mathcal{I}_{jt}$

Candidates Once the universe of establishments and workers is identified, data are combined and *a priori* restrictions and feasibility assumptions are imposed. For each quarter of the date series, the history of every job spell that *ends in that quarter* is compared to the history of *every* active (in terms of ES-202 first month employment) establishment of the employing employer (SEIN). The start date of the job spell is compared to the birth date of each establishment. Establishments that were born after the start of a job spell are immediately discarded from the set of candidate establishments. The remaining establishments constitute the set $\mathcal{R}^i_{jt} \subset \mathcal{R}_{jt}$ for a job spell (worker) at a given employer.[5]

Given the structure of the pairing of job spells with candidate establishments, it is clear that within job spell changes of establishment are ruled-out. An establishment is imputed once for each job spell,[6] thereby creating no spurious labor market transitions.

Imputation and output data Once the input data are organized, a set of 10 imputed establishment identifiers are generated for each job spell ending in every quarter for which both ES-202 and UI wage records exist. For each quarter, implicate, and size class, $s = 1, 2, 3$, the parameters on the linear spline in distance between place-of-work and place-of-residence $\hat{\beta}^s$ are sampled from the normal approximation of the posterior predictive distribution of β^s conditional on Minnesota (MN)

$$p(\beta^s|\alpha_{MN}, x_{MN}, y_{MN}) \tag{9.7}$$

The draws from this distribution vary across implicates, but not across time, employers, and individuals. Next, for each employer j at time t, a set of $\hat{\alpha}_{jrt}$ are drawn from

$$p\left(\alpha_{ST}|N_{ST}\right) \tag{9.8}$$

which are based on the ES-202 month-one employment totals (N_{jrt}) for all candidate establishments $r_{jt} \subset \mathcal{R}_{jt}$at employer j within the state (ST) being processed. The initial draws of $\hat{\alpha}_{jrt}$ from this distribution vary across time and employers but not across job spells. Combining (9.7) and (9.8) yields

$$\begin{aligned} & p\left(\alpha_{ST}|N_{ST}\right) p(\beta^s|\alpha_{MN}, x_{MN}, y_{MN}) \\ \approx \; & p\left(\alpha_{ST}|N_{ST}\right) p(\beta^s|\alpha_{ST}, x_{ST}, y_{ST}) \\ = \; & p\left(\alpha_{ST}, \beta_{ST}|x_{ST}, y_{ST}, N_{ST}\right), \end{aligned} \tag{9.9}$$

[3] A new hire is defined in the QWI as a worker who accedes to a firm in the current period but was not employed by the same firm in any of the 4 previous periods. A new job spell is created if, for example, a worker leaves a firm for more than 4 quarters and is subsequently re-employed by the same firm.

[4] By definition, an end-date for a job spell is not assigned in cases where a quarter of positive earnings at a firm is succeeded by 4 or fewer quarters of non-employment and subsequent re-employment by the same firm.

[5] The sample of UI wage and QCEW data chosen for processing of the QWI is such that the start and end dates are the same. Birth and death dates of establishments are, more precisely, the dates associated with the beginning and ending of employment activity observed in the data. The same is true for the dates assigned to the job spells.

[6] More specifically, an establishment is imputed to a job spell only once within each implicate.

an approximation of the joint posterior distribution of α and β^s (9.4) conditional on data from the state being processed.

The draws $\hat{\beta}^s$ and $\hat{\alpha}_{jrt}$ in conjunction with the establishment, employer, and job spell data are used to construct the p_{ijrt} in (9.1) for all candidate establishments $r \in \mathcal{R}^i_{jt}$. For each job spell and candidate establishment combination, the $\hat{\beta}^s$ are applied to the calculated distance between place-of-residence (of the worker holding the job spell) and the location of the establishment, where the choice of $\hat{\beta}^s$depends on the size class of the establishment's parent employer. For each combination an $\hat{\alpha}_{jrt}$ is drawn which is based primarily on the size (in terms of employment) of the establishment relative to other active establishments at the parent employer. In conjunction, these determine the conditional probability p_{ijrt} of a candidate establishment's assignment to a given job spell. Finally, from this distribution of probabilities is drawn an establishment of employment.

The imputation process yields a data file containing a set of 10 imputed establishment identifiers for each job spell. In a very small set of cases, the model fails to impute an establishment to a job spell. This is often due to unanticipated idiosyncrasies in the underlying administrative data. Furthermore, across states, the proportion of these failures relative to successful imputation is well under 0.5%. For these job spells, a dummy establishment identifier is assigned and in downstream processing, the employment-weighted modal employer-level characteristics are used.

9.3 DATA SET DESCRIPTIONS

9.3.1 Naming scheme

The U2W contains a single file per state:

`u2w_zz.sas7bdat`

ZZ stands for the state postal abbreviation. You will find zero-observation SAS datasets attached to this document - see the attachment tab.

9.3.2 Data location

The files are stored in a main directory, with state-specific subdirectories:

`u2w/ZZ/`

On the RDC network, the directory can be found under

`/mixed/lehd/current`

9.3.3 Main dataset: u2w_zz

This files contain the 10 imputed establishment identifiers are generated for each job spell.

Record identifier PIK SEIN NEW_HIST_FLAG

Sort order PIK SEIN NEW_HIST_FLAG

Entity Job spell

Unique Entity Key PIK SEIN

Field name	Data dictionary reference name	Starting position	Field size	Data type
Start of spell YYYY.F (e.g. 2000Q2 = 2000.25)	FIRST_DATE	00008	3	N
End of spell YYYY.F (e.g. 2000Q4 = 2000.75)	LAST_DATE	00011	3	N
Spell number for same SEIN	NEW_HIST_FLAG	00014	3	N
Protected Identification Key	PIK	00017	9	A/N
State Employer Identification Number	SEIN	00026	12	A/N
State UI Reporting Unit Number (Impute 1)	IMPUTED_UNIT_1	00038	5	A/N
State UI Reporting Unit Number (Impute 10)	IMPUTED_UNIT_10	00083	5	A/N
State UI Reporting Unit Number (Impute 2)	IMPUTED_UNIT_2	00043	5	A/N
State UI Reporting Unit Number (Impute 3)	IMPUTED_UNIT_3	00048	5	A/N
State UI Reporting Unit Number (Impute 4)	IMPUTED_UNIT_4	00053	5	A/N
State UI Reporting Unit Number (Impute 5)	IMPUTED_UNIT_5	00058	5	A/N
State UI Reporting Unit Number (Impute 6)	IMPUTED_UNIT_6	00063	5	A/N
State UI Reporting Unit Number (Impute 7)	IMPUTED_UNIT_7	00068	5	A/N
State UI Reporting Unit Number (Impute 8)	IMPUTED_UNIT_8	00073	5	A/N
State UI Reporting Unit Number (Impute 9)	IMPUTED_UNIT_9	00078	5	A/N

9.3.4 Summary information on datasets

Table 9.2: Number of observations for U2W

Group	Number of datafiles	Records (1000s)	Filesize (GB)
U2W	46	481,400	35

Table 9.3: List of data files for U2W, by state

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Alaska (ak)				
u2w_ak	2000Q1	2008Q4	800	< 5
Alabama (al)				
u2w_al	2001Q1	2008Q4	6,000	< 5
Arkansas (ar)				
u2w_ar	2002Q3	2008Q4	2,900	< 5
Arizona (az)				
u2w_az	2004Q1	2008Q4	2,800	< 5
California (ca)				
u2w_ca	1991Q3	2008Q4	71,600	5
Colorado (co)				
u2w_co	1993Q2	2008Q4	11,400	< 5
Delaware (de)				
u2w_de	1998Q3	2008Q4	800	< 5
Florida (fl)				
u2w_fl	1992Q4	2008Q4	41,100	< 5
Georgia (ga)				
u2w_ga	1998Q1	2008Q4	15,700	< 5
Hawaii (hi)				
u2w_hi	1995Q4	2008Q4	1,600	< 5
Iowa (ia)				
u2w_ia	1998Q4	2008Q4	5,400	< 5
Idaho (id)				
u2w_id	1991Q1	2008Q4	2,700	< 5
Illinois (il)				
u2w_il	1990Q1	2008Q4	21,400	< 5
Indiana (in)				
u2w_in	1998Q1	2008Q4	10,800	< 5
Kansas (ks)				
u2w_ks	1993Q1	2008Q4	5,400	< 5
Kentucky (ky)				
u2w_ky	2001Q1	2008Q4	5,000	< 5
Louisiana (la)				
u2w_la	1995Q1	2008Q4	8,100	< 5
Maryland (md)				
u2w_md	1990Q1	2008Q4	10,900	< 5
Maine (me)				
u2w_me	1996Q1	2008Q4	1,900	< 5

(cont)

Table 9.3 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Michigan (mi)				
u2w_mi	2000Q3	2008Q4	7,400	< 5
Missouri (mo)				
u2w_mo	1995Q1	2008Q4	13,600	< 5
Mississippi (ms)				
u2w_ms	2003Q3	2008Q4	2,000	< 5
Montana (mt)				
u2w_mt	1993Q1	2008Q4	1,300	< 5
North Carolina (nc)				
u2w_nc	1992Q4	2008Q1	22,600	< 5
North Dakota (nd)				
u2w_nd	1998Q1	2008Q4	900	< 5
Nebraska (ne)				
u2w_ne	1999Q1	2008Q4	2,600	< 5
New Jersey (nj)				
u2w_nj	1996Q1	2008Q4	11,300	< 5
New Mexico (nm)				
u2w_nm	1995Q3	2008Q4	2,700	< 5
Nevada (nv)				
u2w_nv	1998Q1	2008Q4	4,100	< 5
New York (ny)				
u2w_ny	2000Q1	2008Q4	19,500	< 5
Ohio (oh)				
u2w_oh	2000Q1	2008Q4	16,500	< 5
Oklahoma (ok)				
u2w_ok	2000Q1	2008Q4	4,300	< 5
Oregon (or)				
u2w_or	1991Q1	2008Q4	8,200	< 5
Pennsylvania (pa)				
u2w_pa	1997Q1	2008Q4	21,200	< 5
Rhode Island (ri)				
u2w_ri	1995Q1	2008Q4	1,100	< 5
South Carolina (sc)				
u2w_sc	1998Q1	2008Q4	5,400	< 5
South Dakota (sd)				
u2w_sd	1998Q1	2008Q4	1,000	< 5
Tennessee (tn)				
u2w_tn	1998Q1	2008Q4	8,500	< 5
Texas (tx)				
u2w_tx	1995Q1	2008Q4	54,200	< 5
Utah (ut)				
u2w_ut	1999Q3	2008Q4	4,900	< 5
Virginia (va)				
u2w_va	1998Q1	2008Q4	12,000	< 5
Vermont (vt)				
u2w_vt	2000Q1	2008Q4	500	< 5
Washington (wa)				
u2w_wa	1990Q1	2008Q4	12,300	< 5

(cont)

Table 9.3 – Continued

File name	StartYQ	EndYQ	Obs. (1000s)	Size (GB)
Wisconsin (wi)				
u2w_wi	1990Q1	2008Q4	13,600	< 5
West Virginia (wv)				
u2w_wv	1997Q1	2008Q4	2,800	< 5
Wyoming (wy)				
u2w_wy	2001Q1	2008Q4	600	< 5

Number of files for each data set group and state. Aggregate size of all files in GB in parentheses.

9.4 NOTES

Space for your notes

9.5 ACRONYMS USED

ASM Annual Survey of Manufacturers

BED Business Employment Dynamics

BES Business Expenditure Survey

BLS Bureau of Labor Statistics

BR Business Register, formerly known as the SSEL

BRB Business Register Bridge

CBSA Core-Based Statistical Area

CEW Covered Employment and Wages

CFN Census File Number

CM Census of Manufactures

CPS Current Population Survey

DRB Disclosure Review Board

ECF Employer Characteristics File

ES-202 ES-202. An older name for the QCEW program

EHF Employment History Files

EIN (federal) Employer Identification Number

FIPS Federal Information Processing Standards codes issued by National Institute of Standards and Technology (NIST)

FTI Federal Tax Information, typically covered under Title 26, U.S.C.

GAL Geocoded Address List

ICF Individual Characteristics File

IRS Internal Revenue Service

IRS Internal Revenue Service

LBD Longitudinal Business Database

LBDB LBD Bridge

LED Local Employment Dynamics

LEHD Longitudinal Employer-Household Dynamics

LMI Labor Market Information

MAF Master Address File

MN Minnesota

MOU Memorandum of Understanding

MSA Metropolitan Statistical Area

NAICS North American Industry Coding System

NIST National Institute of Standards and Technology

OTM OnTheMap

PHF Person History File

PIK Protected Identity Key

PPN Permanent Plant Number

QCEW Quarterly Census of Employment and Wages, managed by the Bureau of Labor Statistics (BLS)

QWI Quarterly Workforce Indicators

RDC Research Data Center

SEIN State employer identification number. It is constructed from the state Federal Information Processing Standards (FIPS) code and the UI account number. The BLS refers to the UI account number in combination with the reporting unit number as SESA-ID

SEINUNIT SEIN reporting unit

SESA State Employment Security Agency

SIC Standard Industry Classification

SIPP Survey of Income and Program Participation

SPF Successor-Predecessor File

SSA Social Security Administration

SSN Social Security Number

U2W Unit-to-Worker Impute

UI unemployment insurance

Bibliography

Abowd, J. M., B. E. Stephens, and L. Vilhuber (2006). Confidentiality protection in the Census Bureau's Quarterly Workforce Indicators. Technical Paper TP-2006-02, LEHD, U.S. Census Bureau.

Abowd, J. M., B. E. Stephens, L. Vilhuber, F. Andersson, K. L. McKinney, M. Roemer, and S. D. Woodcock (2006). The LEHD infrastructure files and the creation of the Quarterly Workforce Indicators. Technical paper TP-2006-01, U.S. Census Bureau, LEHD and Cornell University.

9.6 ERRATA

Release 165:

- ICF: `county_live` and `countyliveimputed` were wrongly attributed to the FTI-free file. `county_live` is FTI. This has been corrected.

Please report any additional errors to the authors of this document.

Data availability 2008-09-09: The following GAL-ES202 crosswalk files (*gal_XX_2003_xwalk_YYYY* do not actually contain any data:

```
KY 2001
MO 1990-1994
NC 1990-1998
UT 2000
```

We do not foresee replacing these files. These will hopefully be corrected in S2007.

2008-09-09: The following file is missing in LEHDLITE and S2004. It is no longer available in archive, and will not be replaced. A correction should be available for S2007:

```
qwi/al/qwi_al_seinunit.sas7bdat
```

$Id: overview_master.tex 413 2010-12-17 20:21:11Z vilhu001 $