300 Cities - An Exploration in Characterizing US Cities

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Abstract

The goal of the 300-Cities Project is to support IRS policy decisions by finding a small number of city clusters, where the cities within each cluster will respond similarly to IRS interventions. This report describes two types of analyses based on U.S. Census 2000 data. The first is an agent-class analysis. In this analysis city clustering operations are based on the correspondence of population profiles for pairs of cities. Extensive effort using this analysis framework in conjunction with the SAS statistical package demonstrates that although the framework is conceptually straightforward, it is computationally impractical and conceptually impoverished. The second analysis framework, the city-matching analysis, combines city summary and population heterogeneity metrics with information access constraints and taxpayer categories to create a city-matching index for each pair of cities. The city-matching analysis thus shifts the basis of analysis from a city's population profile to its information diffusion characteristics, and provides "hooks" to IRS classification schemes to make the findings more actionable. City clustering operations in this framework are based on city-matching indices, which were analyzed by traditional social network analysis techniques using the Organizational Risk Analyzer (ORA). Although the issue of how best to integrate the various components of the city-match index remain unresolved, exploratory results show promise by yielding actionable city clusters. The city clusters, however, only account for 95 of the 297 cities in the Census 2000 data. Together, the two analysis frameworks raise questions as to whether canonical city types exist. At this point, it does seem reasonable to believe that iterative development of the nascent city-matching analysis, coupled with virtual experiments to validate results provided by the framework, will yield actionable information for IRS interventions. Whether that actionable information will employ canonical city clusters, however, remains unclear.

Table of Contents

Overview

The goal of the 300-Cities Project is to identify canonical city types, which can subsequently be used to identify intervention strategies. To elaborate, the goal is to find a small number of city clusters, where the cities within each cluster provide similar social constraints on agent behavior. Since the cities included in each city cluster are alike, a canonical city can represent the entire cluster. Thus, the identification of city clusters provides for economy of effort in subsequent simulation studies because we can run simulations using the canonical cities that represent city clusters rather than having to run simulations for each of the individual cities. In the long term, it also provides guidance for prudent application of IRS interventions.

The 300-Cities moniker for this project stems from an estimate of the total number of cities in the United States as defined using Primary Metropolitan Statistical Areas (PMSAs) and Metropolitan Statistical Areas (MSAs) in Census 2000 data. Thus the term city, as used in this report, refers one of the 297 PMSAs or MSAs available in the Census Bureau's Public Use Microdata Sample (PUMS) 5% data set. Due to the Census Bureau's criteria for inclusion in the PUMS data set an additional 40 MSAs with small populations were excluded from the data set and hence from the analyses performed for this project.

Our initial approach to finding clusters of similar cities is conceptually straightforward. We first define agent-classes[1] as combinations of socioeconomic variables. We then count, for each city, the number of people in each agent-class. Next, we construct a social distance metric measuring the similarity of cities by correlating the population profiles of agent-classes between each pair of cities. Finally, we cluster cities according to their social distances. Our clustering operations employed Multi-Dimensional Scaling (MDS) in SAS.

Difficulties encountered during the agent-class analysis led to an exploration of whether a deep structure analysis in ORA could be used to identify canonical city types. Exploratory results were promising, and led to a revision of our initial, agent-class analysis to include additional city-level metrics in the calculation of social distances among cities. The new, city-match analysis, we believe, will provide results that are more actionable with respect to policy decisions.

Given the centrality of agent-class definitions in the analysis techniques described in this report, the results of the analyses should be interpreted more as a proof of concept for a general technique than as analytical findings per se. The results described are only illustrative – as the clusters found using this technique will vary depending on how agent-classes are defined. The sensitivity of the technique to agent-class definitions provides a means for "tuning" the analysis to alternative schemes for classifying people which may be more in line with current policy decisions or organizational missions.

The next section describes source data from the Census Bureau in some detail. Subsequent sections address agent-class definition, social distance construction, and clustering operations for

[1] "Agent" is used in the social simulation sense of an abstract or synthetic representation of a person.

the agent-class analysis, followed by similar descriptions of the city-match analysis. A conclusion and future directions section ends the report.

1 Source Data

In order to perform city clustering, city characteristics must be defined and measures of their similarity (or dissimilarity) produced. Government statistical sources in the public domain were the immediate choice for reasons of economy and ease of access.

The following general characteristics were considered key for selecting the data for analysis:

- Urban areas/cities can be defined a consistent way.
- National in scope.
- Available without special restriction.
- Amenable to clustering and multidimensional scaling.

The US Census Bureau was considered the most promising source and the 2000 Public Use Microdata Sample (PUMS) 5-percent sample was selected. The PUMS data set is based on Census Long Form and provides information on individual housing units and persons, which allows great flexibility in data analysis. The PUMS also identifies housing units in urban areas by city (MSA/PMSA). Due to privacy considerations, PUMS data limits the geographic resolution when compared to other data products employing Census Long Form data (for example predefined tabular data). Since the intent was to characterize cities, this lower geographic resolution was considered acceptable. For certain analyses, the PUMS data was augmented using geographic information drawn from the Summary File 3 (SF 3) [1] presentation of the Census Long Form data.

The PUMS dataset employed in the study was derived from information collected during the 2000 Census and is slated for replacement by the American Community Survey (ACS) in the near future. The ACS surveys households more frequently than the decennial census and uses many of the same survey questions and coding schemes, making it substantially comparable to the PUMS data. However the current ACS coding scheme does not assign an urban area code and the annual survey collected for the ACS is smaller in size than the census data set, leading to the use of data collected over longer periods in time for smaller demographic units. For the present study, the additional effort required to use ACS data did not seem justified. However, employment of ACS data in future studies is contemplated.

1.1 PUMS Overview and Description

The data for the analysis was drawn from the US Census 2000 Public Use Microdata Sample (PUMS) 5-percent sample. The PUMS data set provides information about individual housing units and persons, along with a weight for each record which can be used to expand the sample to a population total.

The PUMS was created from responses to the US Census 2000 Long Form questionnaire, which was distributed to selected household units at varying sampling rates:

> There were four different housing unit sampling rates: 1-in-8, 1-in-6, 1-in-4, and 1-in-2 (designed for an overall average of about 1-in-6). The Census Bureau assigned these varying rates based on pre-census occupied housing unit estimates of various geographic and statistical entities, such as incorporated places and interim census tracts. For people living in group quarters or enumerated at long form eligible service sites (shelters and soup kitchens), the sampling unit was the person and the sampling rate was 1-in-6. [2] (Page 5-1)

The Census Bureau then selected individual Long Form responses to create a uniformly sized sample for the entire nation, including territories. Two PUMS samples sizes are available: 1-percent and 5-percent. The larger 5-percent sample was employed for this study since it provided better geographic resolution and included data on more housing units and individuals.

The PUMS data contains two types of data records. Housing unit records provide information about the housing unit such as size, age and type along with a unique (by state) serial number. Each housing unit record is followed by one or more person records, containing demographic and financial information about an individual who is a member of the household. Each person record also includes a serial number which ties them to the household record.

The PUMS data includes information in multiple categories[2]:

- Housing Unit record (114 variables[3], fixed length of 316 characters):
  - Size
  - Age
  - Type
  - Cost
  - Taxes
  - Location
  - Income
  - Residents
- Person record (164 variables[4], fixed length of 316 characters):
  - Demographics (Age, Race, National Origin, Gender)
  - Citizenship and Migration
  - Family Relationships
  - Education
  - Disability
  - Military Service
  - Occupation
  - Commuting
  - Income

[2] For a complete description consult reference [1].
[3] Excluding administrative, filler and flag variables, approximately 75 housing unit variables were candidates for inclusion in the study.
[4] Excluding administrative, filler and flag variables, approximately 106 person variables were candidates for inclusion in the study.

1.2 Data Weighting

The PUMS 5-percent data includes a weight for each housing unit and person, which is the number of actual housing units or persons the record is considered to represent. For this study the weighted values were used to create similarity/dissimilarity measures for each city. For instance, the population of a city was computed as the sum of the person weights of all person records for a given city, not the raw count of individual person records.

1.3 Urban Areas Definitions and PUMS Geographic Sampling

The PUMS uses U.S. Office of Management and Budget (OMB) Metropolitan Areas (MAs) as to define urban areas.

> The general concept of a metropolitan or micropolitan statistical area is that of a core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core. [3]

The terminology, definition and the geographic outline of Metropolitan Areas has varied with time in order to track the evolution of American cities. For the 2000 Census, the MA definitions for 1999 were used [4], [5], [6], [7].

"MAs are defined in terms of counties… In New England, however, these areas are defined in terms of cities and towns…" [8] (page B-1). An MA must meet a series of requirements. For instance, an MA must include either a city with at least 50,000 inhabitants or "A Census Bureau defined urbanized area of at least 50,000 population, provided that the component county/counties of the MSA have a total population of at least 100,000." [8] (Page B-3), except in New England where different standards apply.

Metropolitan Areas vary widely in population size. In the 2000 Census, the largest metropolitan area (New York--Northern New Jersey--Long Island, NY--NJ--CT--PA CMSA) contained 21,199,865 persons on April 1, 2000 while the smallest (Enid, OK MSA) contained 57,813 [9]. In the 1999 definition, a two level hierarchy is available for larger metropolitan areas. The entire urban area is termed a Consolidated Metropolitan Statistical Area (CMSA) and contains two or more Primary Metropolitan Statistical Areas (PMSAs). Smaller urban areas are simply designated Metropolitan Statistical Areas (MSAs).

MSA's, CMSA's and PMSA's – What's the Difference
Metro areas with a million or more people may be subdivided into PMSA's if population and commuting criteria are met and there is local support for PMSA's. When areas are divided into PMSA's the entire area becomes a CMSA. Metro areas that are not subdivided are designated MSA's. [10] (Page 2)

In this study, the analysis was performed using MSAs and the PMSA components of large urban areas rather than the CMSA. Since creation of CMSAs is not consistent and the existing CMSAs cover large geographical areas, usually with multiple core areas (for example the Washington--Baltimore, DC--MD--VA--WV CMSA), the PMSA level was considered to be more relevant for the study.

The PUMS uses Metropolitan Areas for certain data fields but introduces a separate geographic concept to group PUMS data. While the Census Bureau has detailed geographic information on the household location, large sample areas containing some 100,000 individuals are defined to group the PUMS data records.

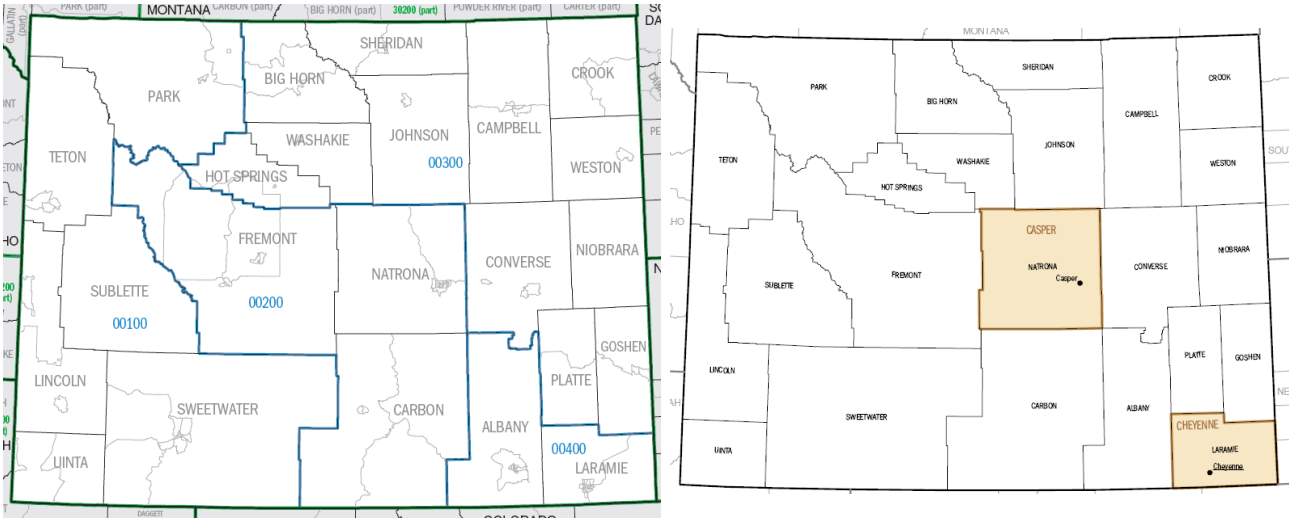
> A Public Use Microdata Area (PUMA) is a decennial census area for which the Census Bureau provides specially selected extracts of raw data from a small sample of long-form census records that are screened to protect confidentiality. These extracts are referred to as "public use microdata sample (PUMS)" files. The 5-percent PUMAs comprise areas that contain at least 100,000 people… For Census 2000, PUMAs cannot be in more than one state or statistically equivalent entity…
>
> Compared to other census products, such as the Redistricting Data File and Summary File 1 (SF 1) (based on 100 percent counts released at the census block level), or the Summary File 3 (SF 3) (based on the Census 2000 long form sample released at the census tract/block group level), the PUMS contains less geographic specificity, and a much smaller sample size. [11]

The PUMAs employed for the 2000 Census are made up using counties or county equivalents in whole, in part or in combination [12]. PUMAs may be discontinuous. A PUMA may lie entirely inside or outside a Metropolitan Area. It may be partly rural and partly urban. It may include more territory from more than one Metropolitan Area. In cases where a PUMA lies partly but not entirely within single Metropolitan Area, the following encoding is used to designate the Metropolitan Area:

D MSAPMSA5 4 28 31
T Metropolitan Area: MSA/PMSA for PUMA
R 0040..9360 . FIPS MSA/PMSA Code
V 9997 . Mixed MSA/PMSA and nonmetropolitan territory
V 9998 . 2 or more partial and/or entire MSAs/PMSAs
V 9999 . Not in metropolitan area [1] (Page 7-24)

Consequently, any data from mixed sample areas is not attributable to a Metropolitan Area and could not be incorporated in the study. Since smaller Metropolitan Areas contain less than the minimum population size for a PUMA, no data from them is identifiable and the entire Metropolitan Area was not included in the study (see Figure 1).

Figure 1: Wyoming: Example of PUMAs Larger than Metropolitan Areas. Wyoming Public Use Microdata Areas on left (outlined in blue), Metropolitan areas on right (shaded). PUMAs 00200 and 00400 are classed as mixed.



Of a total of 337 MSA/PMSAs used during the 2000 Census, 40 were classified as mixed in the PUMS 5% sample and were not available for analysis, leaving 297 for inclusion in the study.

1.4 Geographic Coverage

The study used all Metropolitan Areas included in the PUMS 5-percent sample that are within the states of the United States (including Alaska and Hawaii) and the District of Columbia. U.S. Territories were excluded. In practical terms, among the U.S. Territories only the Commonwealth of Puerto Rico included Metropolitan Areas in the 2000 Census.

1.5 PUMS Privacy and Data Accuracy

Since PUMS data is provided at the level of housing units and persons, certain steps are taken by the Census Bureau to ensure privacy by making it difficult to identify individuals based on PUMS data. This places some limitations on the data used for the clustering study.

- **MA Encoding** – As described above, PUMS 5-percent data is presented as if it was drawn from a geographic block of roughly 100,000 persons. If the sampling block does not lie entirely within a single Metropolitan Area, the MA ID is not coded for those data records. "A geographic area must have a minimum of 100,000 population to be fully identified in the 5 percent file…" [1] (page 4-2)
- **Top Coding** – For certain data variables[5], the high and low values are obscured by using a single predefined value instead of the actual data. For top codes, any value which exceeds the national minimal value (national 99.5 percentile for dollar amounts, over 90 for age) is replaced by the state mean value. For low values (bottom codes), any dollar

[5] Eleven housing variables and nine person variables are topcoded in the 2000 Public Use Microdata Sample files. Age was topcoded for person records, while the remaining nineteen values were dollar amounts for expenses, taxes and incomes.

amount below $10,000 is replaced by -10,000. [13] When aggregated by state, data top-coded using this procedure would yield accurate total values. Since Metropolitan Areas usually do not cover the entire state and may state cross state boundaries, bias may be introduced by this top coding.

- **Data swapping** – "…is a method of disclosure limitation designed to protect confidentiality in data (the number or percentage of the population with certain characteristics). Data swapping is done by editing the source data or exchanging records for a sample of cases. A sample of households is selected and matched on a set of selected key variables with households in neighboring geographic areas that have similar characteristics." [1] (Page 4-1) The bias effects of data swapping are unknown, but "…the swap often occurs within a neighboring area…" [1] (Page 4-1) which may help reduce the bias effects

2 Agent-class Analysis

2.1 Agent-class Definition

Agent-classes are defined by a combination of socioeconomic variables drawn from extant data sources – the 5% PUMS data set in this case. Each variable in the combination corresponds to one dimension of an agent, where each dimension has two or more nominal or ordinal values (e.g., gender: male, female; age: 20-29, 30-39, 40-49; etc.). A preliminary step in agent-class definition, therefore, requires that continuous variables in the source data such as age or income be divided (i.e., binned) into a reasonable number of ordinal values.

The selection (and binning) of socioeconomic variables used to define agent-classes is of core importance. The variables selected comprise the core link between simulation studies and the real-world populations the simulations are intended to represent. The selected variables also affect the structure that will be detected with clustering techniques because agent-classes are used to construct the social distances on which clustering operations are performed.

2.1.1 Selection and Mapping of PUMS Socioeconomic Variables

Our agent-class definition scheme (Version 2.2)[6] is shown Table 1. The scheme consists of the 15 socioeconomic variables we used to classify people in the current analysis. For each variable of interest, the table provides the number of bins, bin values, corresponding source data variable(s), and a short description. Each combination of values for these 15 variables defines one 15-dimensional agent-class.

[6] We iteratively revised our binning scheme in an effort to reduce the memory requirements for analyses using 32-bit SAS on a Windows platform. The binning scheme impacts the number of agent-classes. Agent-classes, in turn, are treated as variables in some of the clustering operations we desired to perform in SAS (i.e., principle components analysis, nonhierarchical clustering). Even with the latest bin definitions, however, we still exceed SAS's memory limits for conducting these analyses. Further revisions to our binning scheme for the purpose of reducing memory requirements in SAS appear counterproductive.

Table 1: PUMS Data Bins

Mapped Variable	# Bins	Values	PUMS Source Variable(s)	Description (and Notes)
arace	5	Asian, Black, Hispanic, Other, White	RACE1, HISPAN	Race (using pre-2000 census definitions).
agebin	5	<30, 30s, 40s, 50s, 60+	AGE	Age
asex	2	Male, Female	SEX	Gender
ams	2	Married, Not Married	MARSTAT	Marital status
aparent	2	Parent, Not Parent	RC	Parent
akids	3	0, 1, 2+	P18	Children under 18 yrs in household
aed	4	No High School Diploma, HSD/Some College, BA/BS, Professional/Grad	EDUC	Educational attainment
aocc	9	Unknown, Professional, Service, Office & Sales, Agriculture, Construction, Transportation, Military, Unemployed	OCCCEN5	Occupation (Census Bureau categories)
ali	2	Linguistically Isolated, Not Linguistically Isolated	LNGI	Linguistic isolation (household ability to understand English)
abuilding	3	Single Family House, Near a Few, Large Apartment Complex/GQ	BLDGSZ	Building size
atenure	4	General Quarters, within 1 year, within 2 years, 3+ years ago	YRMOVED	Year household moved to current home
ainctot	8	Loss, None, <15K, <30K, <50K, <80K, <120K, 120K+	INCTOT	Total income
aincnw	4	Loss, None, <U.S. Median, U.S. Median+	INCINT, INCRET, INCSS, INCSSI, INCPA, INCOTH	Sum of non-wage income
ahapi	4	Loss, None, <U.S. Median, U.S. Median+	SMOCAPI, GRAPI	Housing expenses as percentage of income
apov	2	Poverty, Not Poverty	POVERTY	Living in poverty status

2.1.2 Observed Agent-class Characteristics

For all analyses described in this report, we excluded data from rural areas and mixed PMSA/MSAs (PUMS MSAPMSA5 codes 9997, 9998, and 9999). Children less than 15 years old were also excluded because their incomes were not reported. With the remaining PUMS data,

we classified each person in a city by agent-class, and tallied the number of agents in each agent-class.

Using binning scheme version 2.2, approximately 1.02 million agent-classes (1,002,277 to be exact) out of a possible 132,710,400 agent-classes contained at least one person. The median number of agents per class was 35. The smallest populated agent-class had 1 member agent; the largest class had 605,877 agents. Thus, one person in the U.S. is unique in terms of the socioeconomic variables we used to define agents in this analysis.[7] That person is a white female in her 40's, married, not a parent, living with no kids, holds an advanced degree, is in the military, speaks English, has lived in her single-family house 1 year or less, has a $50-80,000 income with non-wage income less than the national median, has nil housing expenses and is living above the poverty mark (agent class wf4mn03mn11_41xn). The most common class of agent (wf6mn01un13_121n) is a white female, 60+ years old, married, not a parent, living with no related children, graduated from high school and took some college courses, is unemployed, speaks English, has lived in her single-family house for 3+ years. Her total income is $30-50,000, with non-wage income below the national median. Her housing expenses (as a percentage of income) are less than the national median, and she is living above the poverty line.

This most common agent-class (wf6mn01un13_121n) is found in all 297 cities in the U.S. Over 50% of the agent-classes, however, are localized in – hence unique to – one city. All 297 cities have some unique agent-classes. That each city's population is comprised of unique agent-classes indicates that some degree of the social context experienced in every city of the U.S. stems from idiosyncratic diversity in the local population.

City-unique diversity (i.e., agent-classes found in only 1 city) accounts for a median of 4.4% of a city's population (see Figure 2). The city with the highest proportion of unique agent-classes in its population is Honolulu, HI (24.3%). The city with the lowest proportion of unique agent-classes in its population is Sharon, PA (1.8%).

[7] Since the PUMS data set is a weighted 5% sample, there may be other unique agent-classes in the general population; similarly city-unique or unique agent-classes may in fact be non-unique when considering the general population.

Figure 2: City Unique Diversity.
Percent of city population composed of unique agent classes.

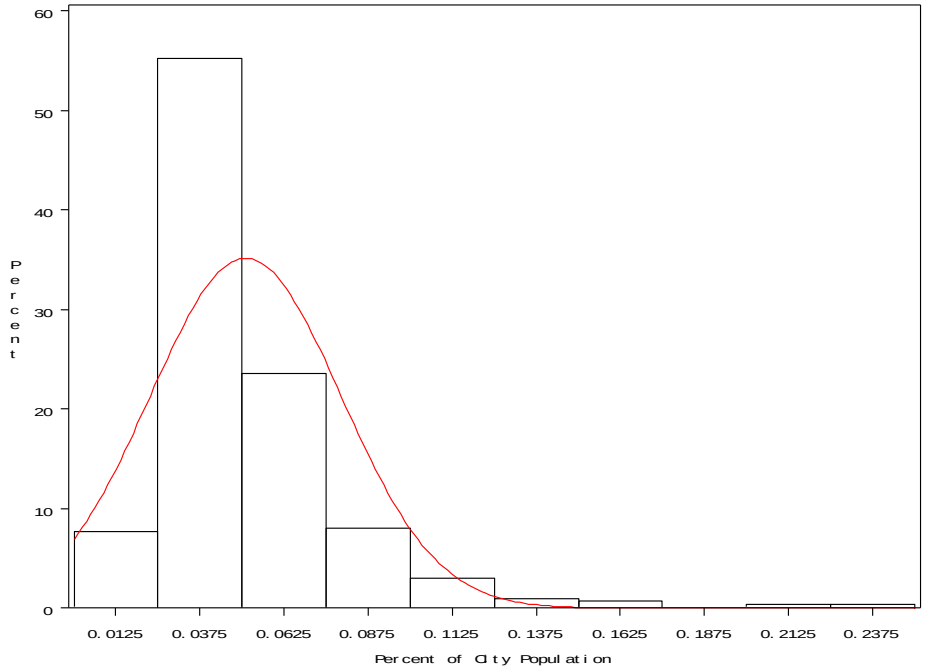
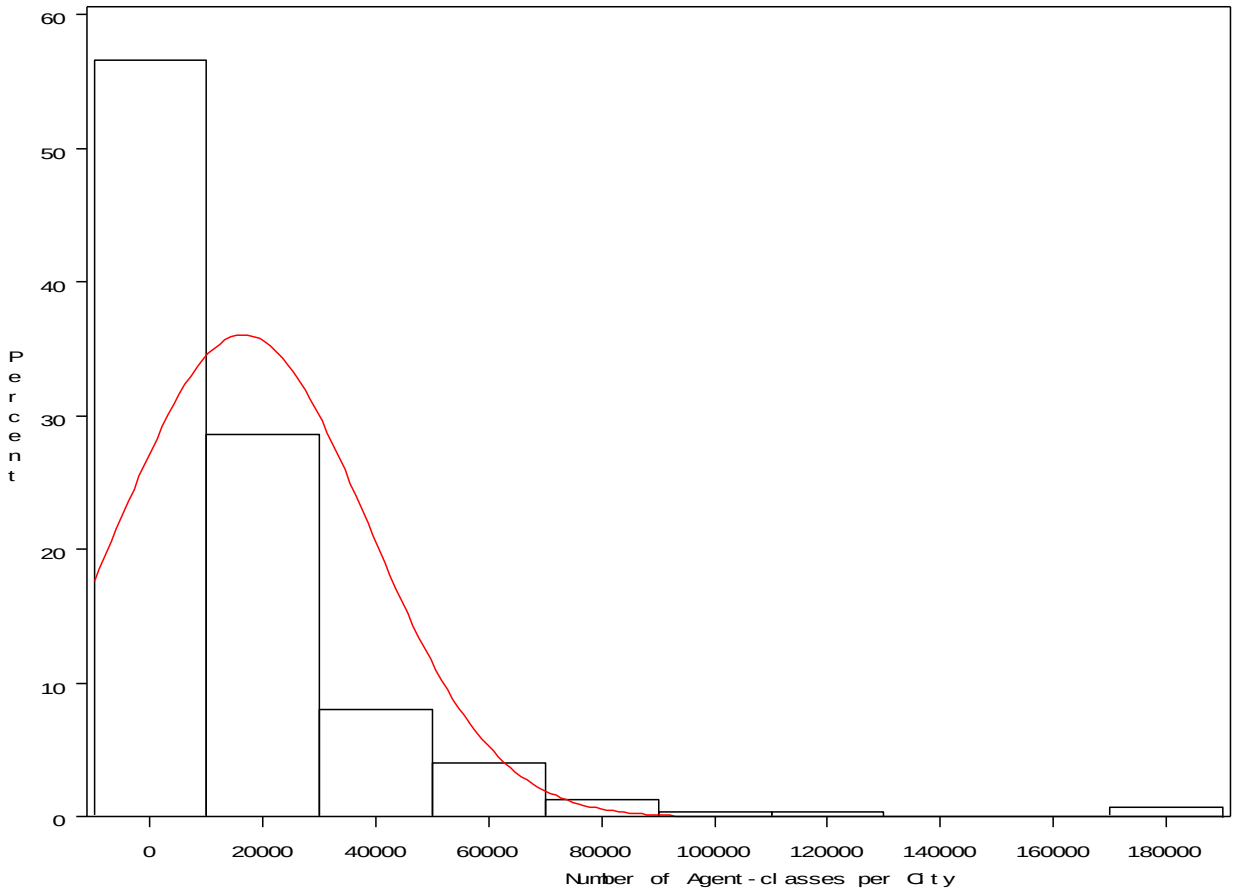


Figure 3 depicts population diversity in cities regardless of agent-class uniqueness. The median number of agent-classes per city was 8545. The city with the least diversity in its population was Sioux Falls, SD – with only 2439 agent-classes. Los Angeles-Long Beach, CA had the most diverse population, composed of 186,652 agent-classes.

Figure 3: Number of Agent-classes per City.



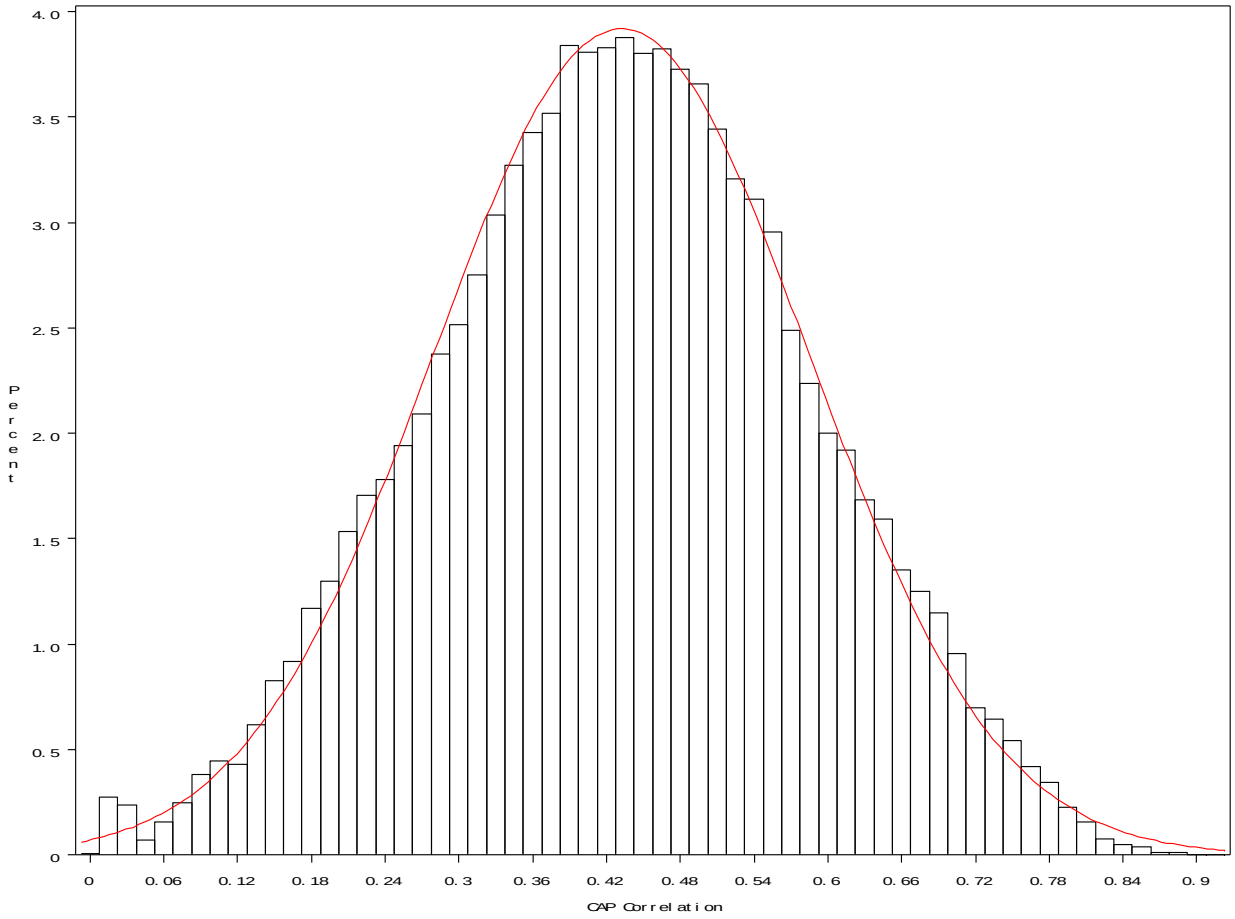
2.2 Social Distance Construction

For each city, we created a City Agent Profile (CAP) from the number of agents per observed agent-class. CAPs are vectors with ~1.02 million elements (one per agent-class) that describe cities in terms of the composition of their agent populations.

Pairwise correlations between CAPs yield a measure of the similarity between two city's agent populations. Pairwise CAP correlations thus form the inverse of our measure of the social distance between cities.

As can be seen in Figure 4, CAP correlations ranged from a minimum of .006 (Laredo, TX and Manchester, NH) to a maximum of .916 (Pittsburgh, PA and Cleveland-Lorain-Elyria, OH). The correlations were normally distributed with a mean of .43 and a standard deviation of .15.

Figure 4: Distribution of City Agent Profile (CAP) Correlations.



2.3 Clustering Operations

The correlations among CAPs served as input to Multi-Dimensional Scaling (MDS) analyses in SAS and an exploratory ORA deep structure analysis. To anticipate the conclusion, the low-dimensional descriptions of structure in the social distances between cities produced by our MDS analyses provided little insight for clustering of cities, whereas the exploratory ORA deep structure analyses showed promise as a technique for defining city types.

2.3.1 Multi-Dimensional Scaling Analysis with SAS

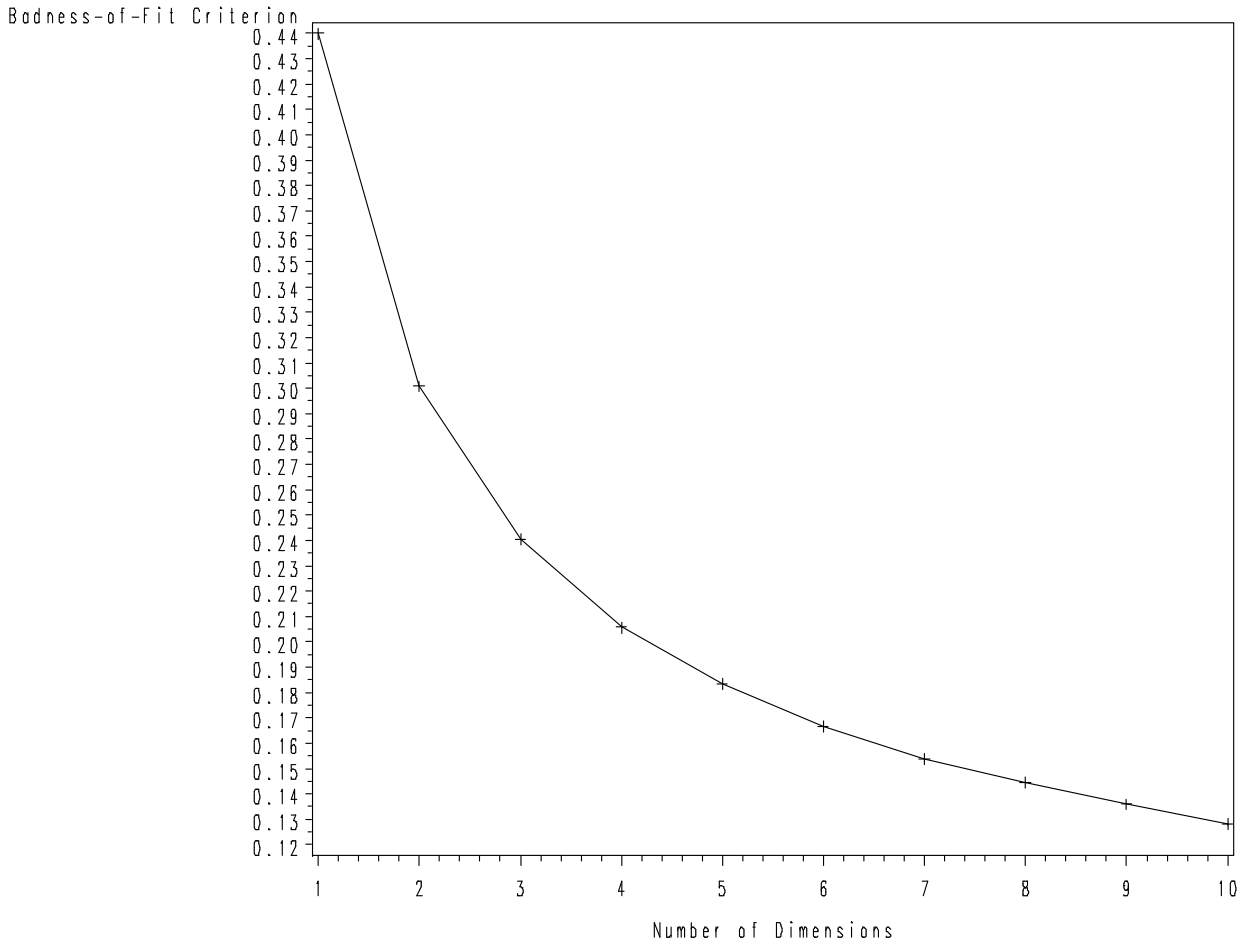
The pairwise CAPs correlations for the 297 cities served as a proximity matrix in an ordinal MDS. Solutions for models with 1 to 10 dimensions were explored.

2.3.1.1 Raw Counts Model

Examination of the scree plot (see Figure 5) shows a relatively smooth reduction in stress (improvement in model fit) as the number of dimensions in the model increases. But even with a 10-dimensional model, the fit is not "good" per se. (We would like the stress to be below 0.10.) Although there is no obvious elbow in the scree plot, improvements in fit due to increased

dimensionality appear to diminish substantially starting at models with 3- to 4-dimensions. The fit for the 3- and 4-dimensional models, however, is relatively poor. All in all, these results indicate that structure in the proximity matrix is relatively weak.

Figure 5: Scree plot: Stress as a Function of MDS Model Dimensions.



Visual inspection of the 300-cities in the three dimensional solution shows a reasonable dispersion of the cities but no apparent city-clusters (see Figure 6 through Figure 8).

Figure 6: City Coordinates in MDS Solution: Dimension 2 versus Dimension 1.

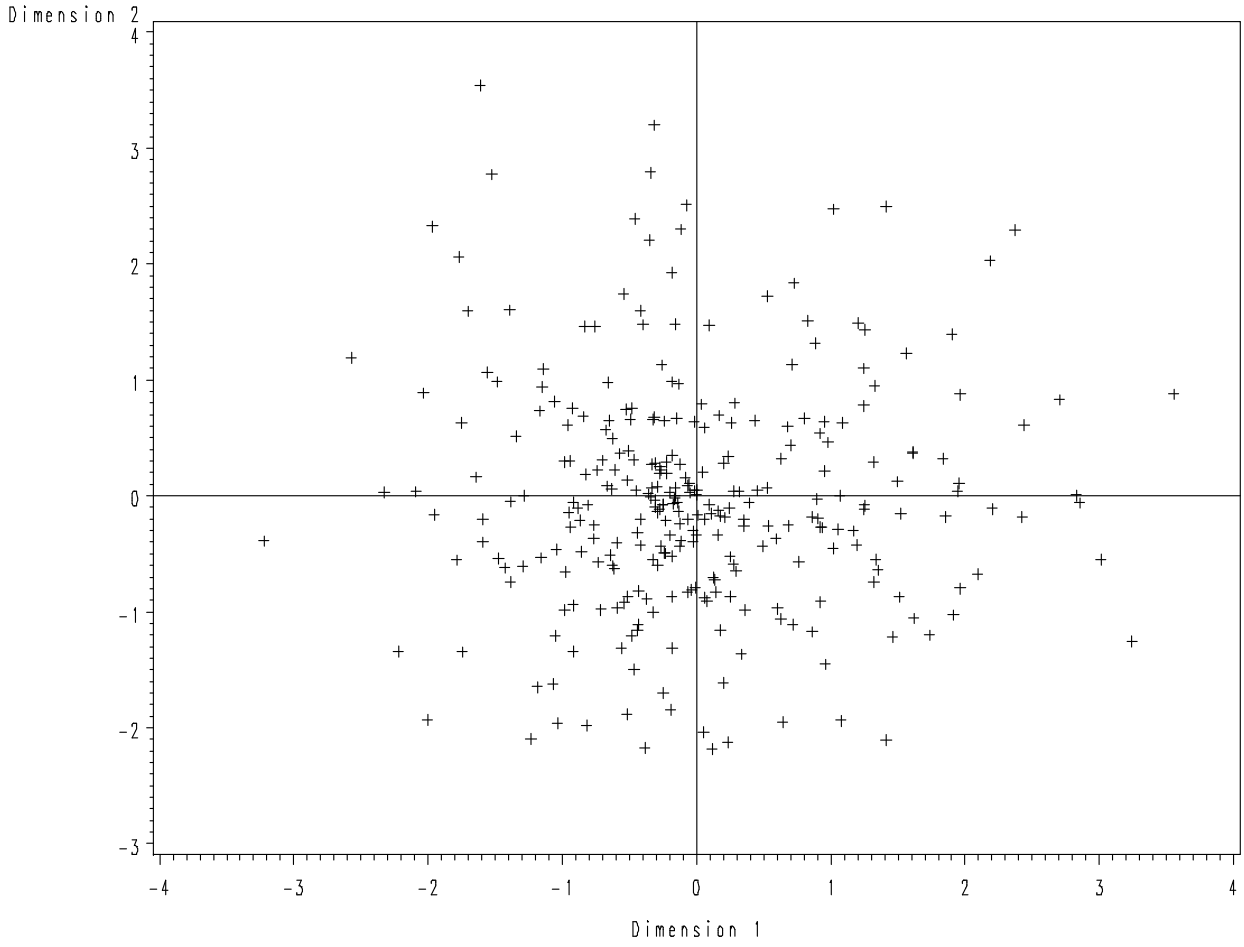


Figure 7: City Coordinates in MDS Solution: Dimension 3 versus Dimension 1.

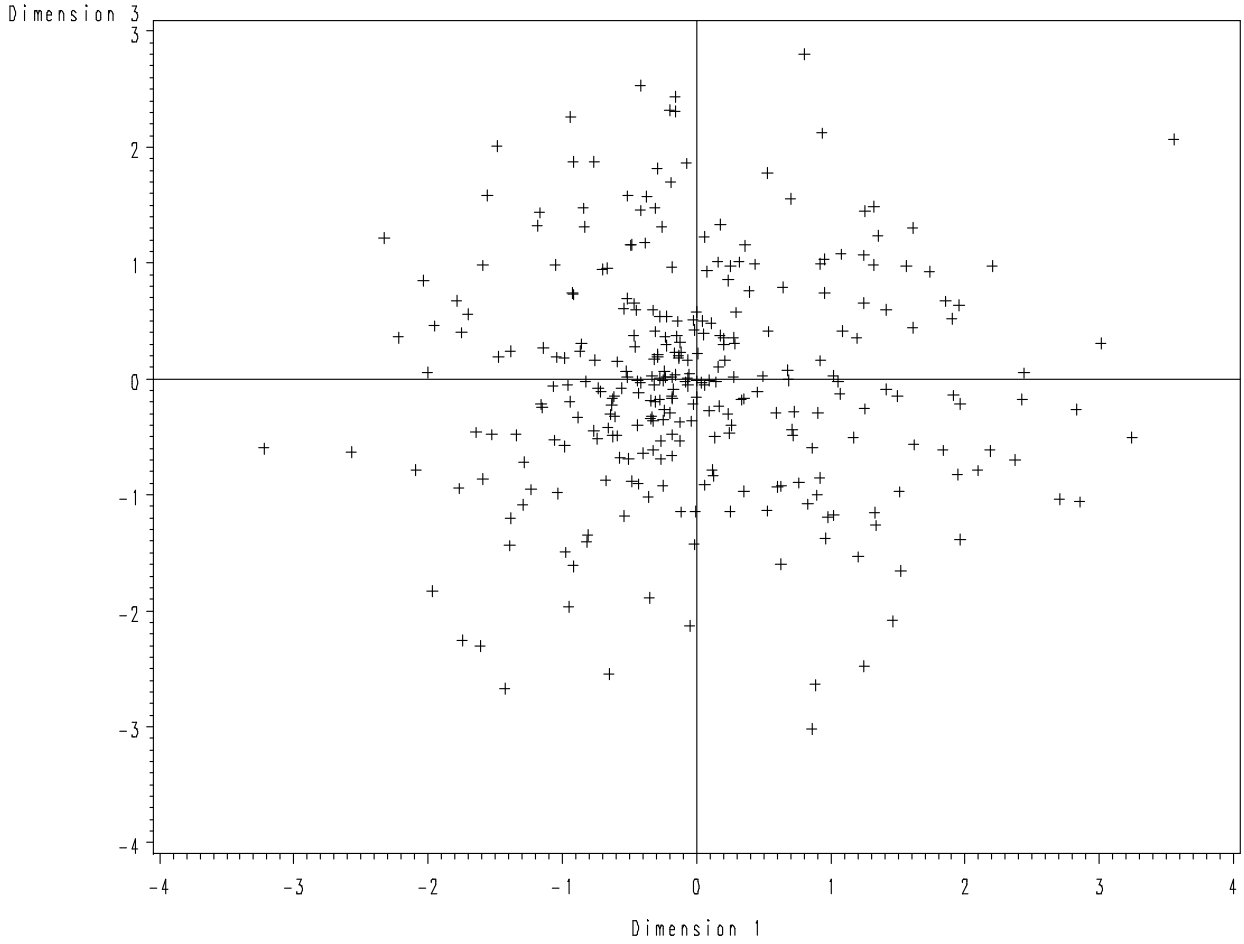
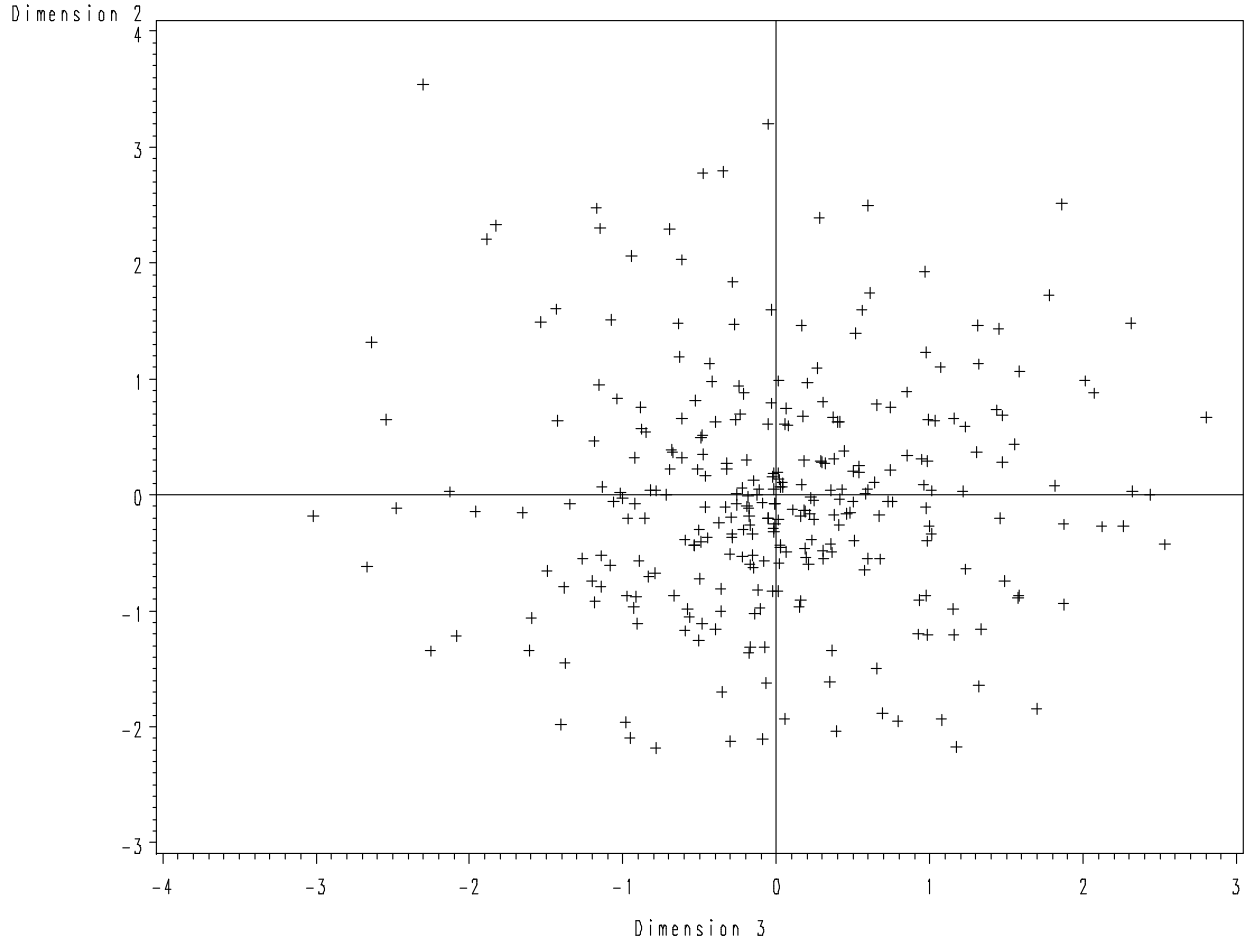


Figure 8: City Coordinates in MDS Solution: Dimension 2 versus Dimension 3.



2.3.1.2 Rejected Transformations

The properties of social distances constructed using agent-class counts are largely unknown at this point, as it is an area of ongoing development. Concerns over the impact that anomalies in the distribution of agent-class counts may have on Pearson's correlation coefficient and the MDS analysis led to an examination of several data transformations commonly performed on count data. To reduce the impact that exceptionally large counts for common agent-classes may have on our social distance metric, we took the square-root of agent-class counts; computed pairwise CAP correlations; and then performed MDS analyses. No substantive differences in the fits produced by transformed versus raw agent-class counts were found. We also examined the impact of using proportion of a city's population in CAPs rather than raw counts. Again no substantive change in the MDS model was observed. The impact of using an arcsine transformation of the proportions of city population in CAPs was also examined – again with no substantive change in MDS model.

We also examined the impact that aggregating city-unique agents into a single agent-class (cf. "other" category) would have on the MDS solution. The results again were not substantially

different from the basic analysis. Finally, we examined the impact of removing city-unique agents and common (widely distributed) agent-classes which were found in 290 or more cities. The resulting MDS solution in this case was substantially worse.

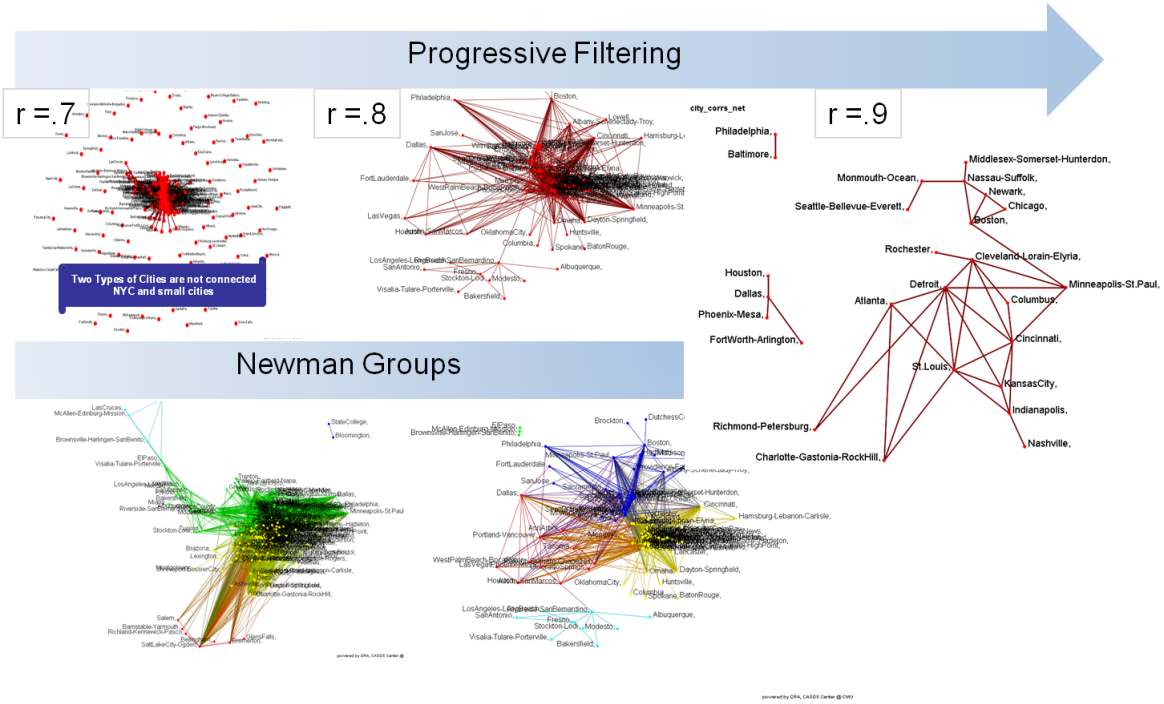
2.3.2 Exploratory Deep-structure Analysis with ORA

As described thus far, various binning schemes and data transformations failed to yield distinct clusters of similar cities. Although the agent-class analysis is conceptually straightforward, the use of detailed agent-classes as the basis of city similarities is impractical when using SAS as the analysis package. The problem arises from the fact that the number of agent-classes produced by a particular binning scheme can easily be in the millions. With the exception of MDS, clustering procedures available in SAS (e.g., non-hierarchical clustering, principle components analysis) require that each agent-class be treated as a separate variable. Although SAS, in principle, can perform clustering analyses on millions of variables, the implementation of 32-bit SAS under Windows imposes memory limitations that effectively prevent alternative agent-class analyses. Therefore, we were unable to determine whether alternative clustering techniques in SAS would yield better results.

The clustering techniques available in ORA (e.g., Concor, Newman Grouping) provide a viable alternative approach. Given that the poor fit of the MDS models generated with SAS implies a relative lack of structure in the distances computed from agent-classes, we find no evidence of a small number of city clusters when we assume that city clusters can be discerned using a small number of continuous dimensions to describe *all* social distances (near and far alike) among cities. This raises the possibility that our assumption of continuous underlying dimensions in a model of all social distances is too stringent. If we relax this assumption by filtering the social distances such that weak similarities between cities (i.e., far distances) are removed from consideration, then ORA clustering techniques may provide discernable city clusters.

The following figure (Figure 9) shows the results of exploratory ORA clustering analyses in which the CAP correlations were progressively filtered to remove far social distances (i.e., weak similarities). As can be seen by the color coding of Newman Groups, ORA detects 6-8 city types. This aspect of the deep-structure analyses shows promise. The analyses, however, only account for a subset of the 297 cities.

Figure 9. City Clusters via ORA Deep-structure Analyses on Filtered City Distances.



2.4 Lessons Learned from Agent-class Analysis

The naive approach to finding similar cities is to create detailed agent classes and then perform clustering operations in a statistical package (e.g., SAS). This was done. There are two problems with this approach. First, the number of agent classes is in the millions and tools such as SAS and SPSS were not designed to run clustering algorithms on data sets with so many variables (i.e., agent-classes). Unfortunately, a 64-bit version of SAS was not available within the time and budget constraints of the project (nor is it certain that this version would have improved results).

Second, meaningful comparison of cities to enact policies does not require similarity in the percentage of agents by detailed agent classes. This conclusion was prompted by the exploratory ORA deep-structure analysis. As we move to more traditional network analysis techniques, the issue of information diffusion within a society comes to the forefront. The diffusion of information in response to IRS interventions depends on more than the correspondence of population profiles among cities – an implicit assumption behind using CAP correlations as social distance metrics. The city-matching analysis described in the next section addresses this issue.

3 City Matching Analysis

Lessons learned from the agent-class analysis indicate the need for a new approach to constructing social distances between cities that is better tuned to similarities in information diffusion characteristics of cities. To adequately capture similarities in information diffusion among cities requires metrics not only of population composition as provided by detailed agent classes but also of intra-city forces that either impede or foster information diffusion. In this vein,

metrics of intra-city heterogeneity, population density, information access constraints, etc., become relevant. Additionally, if the clustering analyses are to provide operational guidance for policy decisions, they must directly relate to population descriptors used by the IRS, vice those sociodemographic variables found in census data. Thus, assessments of similarities in information diffusion characteristics among cities must also include metrics that describe populations in terms relevant to taxpayer categories.

Our current conceptualization of a city-matching analysis envisions it as based on agent-classes and consisting of three components:

(1) Matching on global, city characteristics that include city-level summary metrics and metrics of population heterogeneity within a city (i.e., Herschall-Herfendorfer Heterogeneity Index).
(2) Information Access Constraints, which are estimated from city sociodemographics and available sociodemographic research on literacy, internet access, and newspaper readership, for example.
(3) Tax-payer Categories to make findings actionable.

3.1 Agent-class Revision and Observed Characteristics

As a first step toward a city matching analysis, we revised our binning scheme to use variables that more directly capture social context, hence the information dispersion characteristics of a city. A notable addition to the agent-class level of description is the estimate of an agent's social network size. For each person in a city, we created a rough estimate of their social network size by considering length of tenure in their current home and the type of home. More sophisticated metrics of an agent's social network may be included in future analyses. The revised binning scheme (Version 3.0) is shown in Table 2. The source data remains the Census 2000 5% PUMS data set.

Table 2: Revised PUMS Data Bins (Version 3.0)

Mapped Variable	# Bins	Bin Values	PUMS Source Variable(s)	Description (and Notes)
arace	5	Asian, Black, White, Other, Hispanic	RACE1, HISPAN	Race (using pre-2000 census definitions)
agebin	3	0-29, 30-60, 61+	AGE	Age
asex	2	Male, Female	SEX	Gender
ams	2	Married, Not Married	MARSTAT	Marital status
akids	3	0, 1, 2+	P18	Children under 18 yrs in household
aed	4	No High School Diploma, HSD/Some College, BA/BS, Professional/Grad	EDUC	Educational attainment
aocc	9	White Collar, Agriculture, Blue Collar, Military, Unemployed	OCCCEN5	Occupation (Census Bureau categories)

Mapped Variable	# Bins	Bin Values	PUMS Source Variable(s)	Description (and Notes)
ali	2	Linguistically Isolated, Not Linguistically Isolated	LNGI	Linguistic isolation (household ability to understand English)
abuilding	3	Single Family House, Near a Few, Large Apartment Complex/GQ	BLDGSZ	Building size
atenure	4	Group Quarters, within 1 year, within 2-4 years, 5+ years ago	YRMOVED	Year household moved to current home
ainctot	9	Missing, Loss, None, <15K, <30K, <50K, <80K, <120K, 120K+	INCTOT	Total income
aincnw	4	Loss, None, <U.S. Median, U.S. Median+	INCINT, INCRET, INCSS, INCSSI, INCPA, INCOTH	Sum of non-wage income
ahapi	5	None or no income, Quartile 1, Q2, Q3 Q4	SMOCAPI, GRAPI	Housing expenses as percentage of income
apov	3	Not determined, Poverty, Not Poverty	POVERTY	Living in poverty status
alocsn	3	Small, Medium, Large	*n/a*	Social network size (derived from mapped variables abuilding and atenure)

Version 3.0 of our binning scheme has a total of 251,942,400 possible agent-classes. When the 5% PUMS data for all 297 metropolitan areas is sorted into bins, 266,279 of the possible agent-classes were observed to contain at least one agent. Of the observed agent-classes, 96,628 are unique to a single city and 75,948 are unique to exactly two cities. Therefore, approximately 65% of the observed agent-classes are local to one or two cities – making them relatively rare agent-classes from a national perspective. All cities included in the study contain unique agent classes and agent classes which are present in only two cities.

The prevalence of rare agent classes indicates that the social context provided by each city is idiosyncratic to some degree. As can be seen in Table 3, between 1% and 2% of a city's population is comprised of rare agent-classes. Table 4 and Table 5 show the cities with the highest proportion of rare agent-classes, measured by the proportion of the population comprised of unique agent classes and agent classes present in only two cities, respectively. By each measure, Honolulu, HI ranks highest.

Table 3: Proportion of City Population in Rare Agent-Classes

Metric	Unique Agent Classes	Agent Classes in Two Cities Only
Mean	0.9874%	0.7937%
Standard Deviation	0.6672%	0.4796%
Minimum	0.1703%	0.1699%
Maximum	5.9608%	4.0517%

Table 4: Cities with the Highest Proportion of Unique Agent Classes

Census Bureau Metropolitan Area Name	Proportion of Population
Honolulu, HI MSA	5.9608%
Flagstaff, AZ--UT MSA	3.6542%
Jersey City, NJ PMSA	3.6026%
Yuba City, CA MSA	3.5595%
Miami, FL PMSA	3.2540%

Table 5: Cities with the Highest Proportion of Agent classes found in Exactly Two Cities

Census Bureau Metropolitan Area Name	Proportion of Population
Honolulu, HI MSA	4.0517%
San Francisco, CA PMSA	2.5991%
Jersey City, NJ PMSA	2.5158%
New York, NY PMSA	2.4536%
San Jose, CA PMSA	2.4408%

In contrast to the sizable number of rare agent-classes, a relatively small number of agent-classes are fairly common across cities: 162 agent classes are common to 95% or more of US cities and an additional 162 are common to 90% of cities (see Appendix D, Appendix E, for additional details). As can be seen in Table 7, approximately 20% of a city's population is comprised of agent-classes common to at least 90% of US cities. Table 8 shows that around 26% of Altoona, PA's population is comprised of agents-classes found in at least 95% of US cities. Table 9 shows

that around 14% of Bloomington, IN's population is comprised of agent-classes common to 90-95% of US cities. Finally, Table 10 details the three agent-classes found in every US city.

Table 6: Percent of City Population Comprised of Common Agent-classes.

Percent of City Population in Common Agent-Classes		
Metric	**Common to 95-100% of Cities**	**Common to 90-95% of Cities**
# Classes	162	162
Mean	13.46	7.43
Standard Deviation	4.46	2.12
Minimum	0.47	0.23
Maximum	25.75	14.22

Table 7: Top Five Cities with the Highest Percentage of Agent-classes Found in 95-100% of U.S. Cities.

Cities with Highest % of "95-100% Common" Agents	
Census Bureau Metropolitan Area Name	**Percent of Population**
Altoona, PA MSA	25.75
Johnstown, PA MSA	25.42
Sharon, PA MSA	23.68
Duluth--Superior, MN--WI MSA	23.11
Williamsport, PA MSA	21.88

Table 8: Top Five Cities with the Highest Percentage of Agent-classes Found in 90-95% of U.S. Cities.

Cities with Highest % of "90-95% Common" Agents	
Census Bureau Metropolitan Area Name	**Percent of Population**
Bloomington, IN MSA	14.22
St. Cloud, MN MSA	12.76
State College, PA MSA	12.54
Lafayette, IN MSA	12.14
La Crosse, WI--MN MSA	11.91

Table 9: Agent-classes Observed in Every City.

	Agent Class		
Agent Attribute	**1**	**2**	**3**
Race	White	White	White
Gender	female	female	Female
Age Group	middle	Senior	Senior
Marital Status	married	married	Single
Number of Children	0	0	0
Education	HS	HS	HS
Occupation	White Collar	unemployed	Unemployed
Linguistic Isolation	No	No	No
Local Social Network	Medium	Medium	Medium
Total Income	15-30K	0-15K	0-15K
Non-wage Income	< U.S. Md	> U.S. Md	> U.S. Md
Housing Expenses API	U.S. Quartile 1	U.S. Quartile 1	U.S. Quartile 4
Living in Poverty	No	No	No

3.2 Social Distance Construction

We used the revised binning scheme (Version 3.0) to construct City Attribute Profiles (CAPs) that serve as input for creating a city-matching index for each pair of cities (i.e., a new social distance metric). The city-matching index is based on CAPs in which one subset of elements in the CAP vector describes city characteristics (i.e., summary metrics), a second subset describes city-specific information access constraints, and a third subset describes city-specific tax-payer categories.

The next two sections briefly elaborate on the elements of the new CAP vector associated with information access constraints and tax-payer categories. We then describe how the city-match index is computed and the results of an illustrative city-clustering analysis.

3.2.1 Information Access Constraints

CAPs based solely on agent-classes roughly index the impact that agent homophily (i.e., love of the same, a term used by sociologists to describe the tendency of individuals to associate and bond with similar others) within a city will have on information diffusion. Information access constraints will also impact the diffusion of information within a society – an issue described briefly below.

There are a number of ways in which an individual's access to information may be limited. For example, the individual may be illiterate in which case information from newspapers, the internet, letters would be less accessible. As another example, individuals may for financial, religious or

other reasons not have access to the internet. In these cases information disseminated via email or the web would be less likely to reach them. For the U.S. the key access constraints appear to be illiteracy, internet penetration, newspaper readership, radio listenership, and size of an individual's social network. For additional details on the extent and characteristics of these access constraints, other than the social network, see [14]. In this report, our concern is with characterizing variation across cities in terms of access. The goal is twofold:

(1) to identify the fraction of the city that may have limited information access and
(2) cluster cities by type of access.

In the U.S. at this point in time, radio listenership is nearly universal. The issue is not do individuals have access to the radio, but which station are they listening to and when. The only recommendation for effective message dissemination here is to choose the set of stations with largest listenership that cover listening styles in that region and provide information at multiple points in the day.

As for the other access constraints, variables that are related to access are: age, race, gender, occupation, income and education. In the case of gender and race, we are simply noting a correlation not stating any form of causation. For each of these variables the break down in access per city for illiteracy, internet access, and newspaper readership is shown in Appendices F, G, and H, respectively.

3.2.2 Tax-payer Categories

Taxpayer categories will influence information diffusion to the degree they are related to sociodemographic variables associated with homophily. Our decision to incorporate elements associated with taxpayer categories into the new CAPs, therefore, is not driven primarily by considerations of information diffusion. Rather, our primary reason for incorporating these elements into city-matching CAPs is to make analytical results more actionable (i.e., more directly related to IRS policy decisions). These elements of the CAPs are elaborated below.

There are a number of factors that influence what taxes and the amount of taxes paid. For example, only individuals with children and low incomes or simply a very low income may claim the EITC. Whether tax credits or tax avoidance scams, factors that influence the level of taxes that should be paid in the US are the level of income, whether the income is from wage or non-wage sources, number of children, change in residence, and special credits for various behaviors such as energy and phone behavior. The goal in this section is twofold:

1) to identify the fraction of the city that may have specialized tax payer needs, and
2) cluster cities by these tax payer needs.

As a caveat, this work is based on census data and is looking at general aspects of tax-paying, not peculiarities due to special onetime tax credits such as the phone rebate. As such, census indicators of the relevant factor are used in this study which may or may not match the IRS categories perfectly. For example, we use poverty level and census reported household incomes which are not exactly the same as IRS single or married, filing jointly incomes. Nevertheless, the categories produced here should be close enough for city characterization.

The census variables related to taxpaying categories are:

- Age
- Number of children
- Income, wage
- Income, non-wage
- Number of years in new home
- Poverty.

3.2.3 Calculating the City-match Index

Elements of CAPs are associated with city-level metrics and city-level summaries of social, demographic, and economic characteristics of city inhabitants. For the analysis described in this report, city-level metrics included population and population density. City-level summaries included categorical and continuous sociodemographic variables and indices of sociodemographic heterogeneity. For categorical variables, the proportion of city population comprised by each gender (male, female), marital status (married, not married), number of children (0, 1, 2+), and poverty status (living in poverty, not living in poverty) category served as the city-level summary metric. For continuous variables, the median of age, total income, non-wage income, and housing expenses served as the city-level summary. Finally, Herschall-Herfendorfer Indices of sociodemographic heterogeneity were computed for race, occupation, housing, and tenure. The Herschall-Herfendorfer index of heterogeneity for each sociodemographic variable was calculated by subtracting the sum of the squared proportions of a city's population comprised by each category of the sociodemographic variable from one:

$$HH_{SD} = 1 - \Sigma Prop(bin_i)^2$$

Each attribute (i.e., element) in the resulting CAP (i.e., vector) was then categorized as being High, Medium, or Low by performing a tertiary split on the attribute's distribution across all cities. Once the city-matching CAPs were created, we calculated a city-match index for each pair of CAPs by summing the match value for each attribute, per the following look-up table.

Table 10: Look-up Table for Attribute Match Value.

		City 2		
		High	Medium	Low
City 1	High	1	.5	0
	Medium	.5	1	.5
	Low	0	.5	1

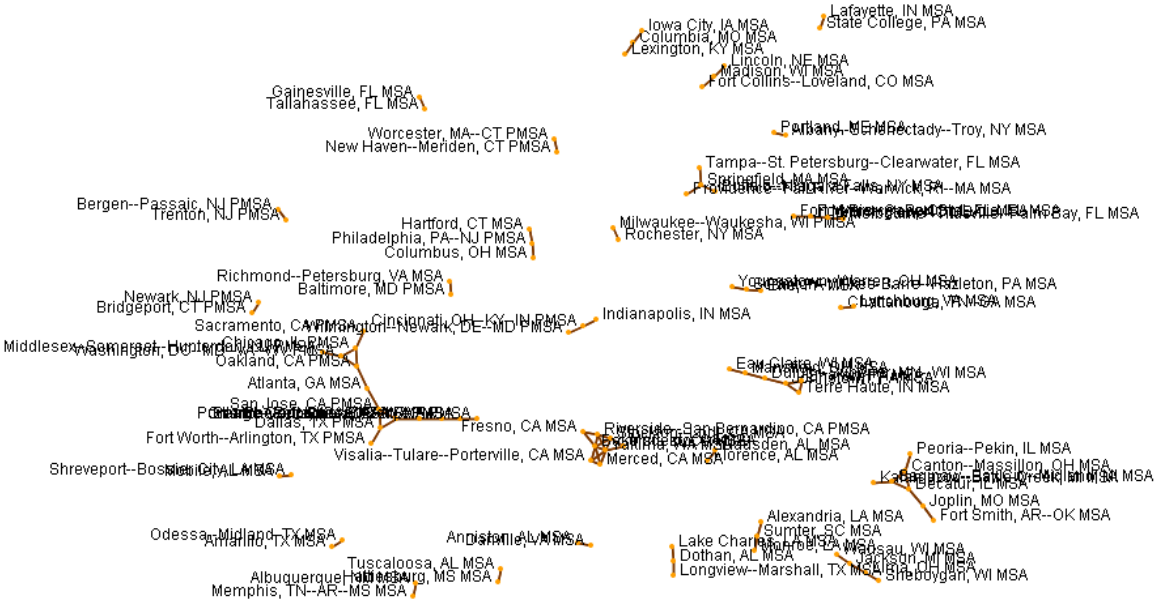
3.3 Clustering Operations

3.3.1 City-match Index

When social distances among cities are computed according to the city-match index, a few cities are highly similar (see Figure 10). This means that a person living in one of these cities who

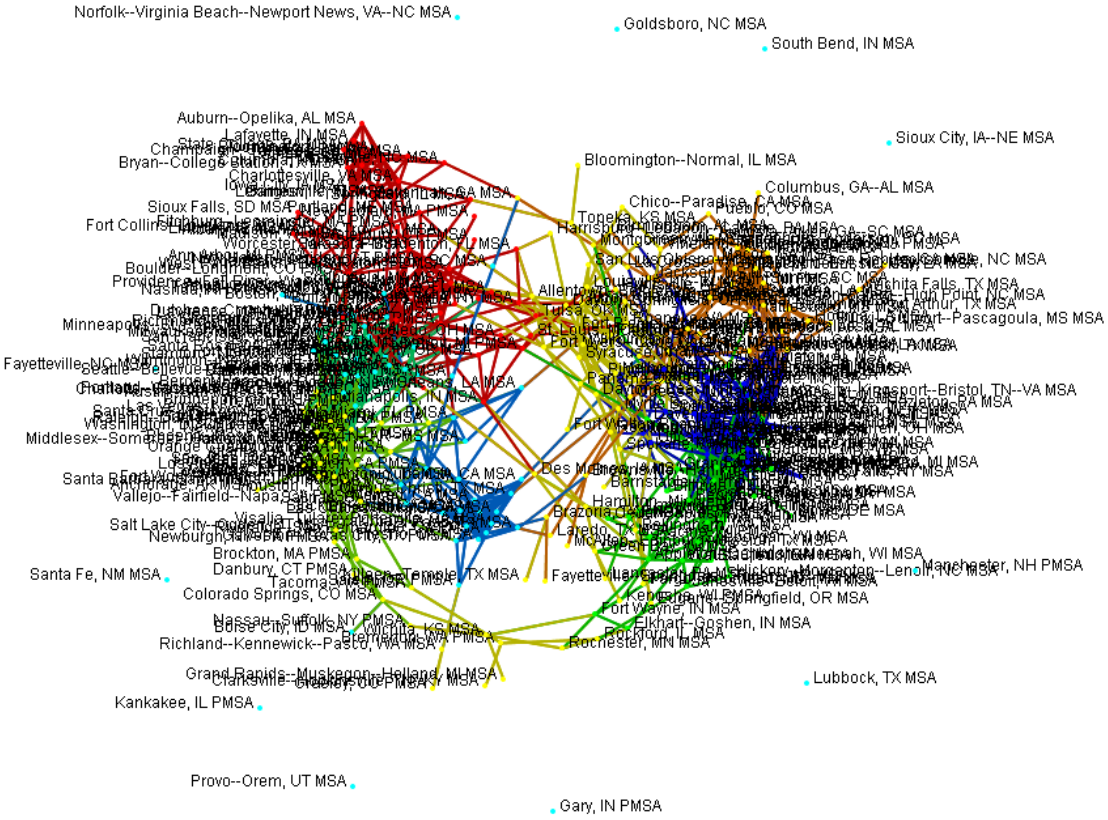
moves to another one, will experience the new city as having a similar "feel" in terms of diversity, age, race, etc. (i.e., the social contexts are highly similar). From a taxpaying perspective, however, this analysis does not tell us whether there are similar tax issues in the cities.

Figure 10. Network Graph of Highly Similar Cities.



To get at factors relevant to taxpaying, we defined a city network where a tie exists between two cities if they have at least 85% of their attributes in common. We then performed a Concor grouping analysis in ORA. Concor clusters nodes (i.e., cities) into a group if those nodes are connected to the same/similar set of other nodes (cf. cliques). Concor clustering in ORA suggests nine distinctive groups, depicted by coloring in **Error! Reference source not found.**

Figure 11. Concor Clustering of Cities.



As can be seen in Figure 12, the city clusters are relatively independent of geographical location. The lack of a discernable pattern in the geo-location of Concor groups implies that policy decisions based on regional considerations will not be appropriate.

Figure 12. Geographic Dispersion of Concor Groups.

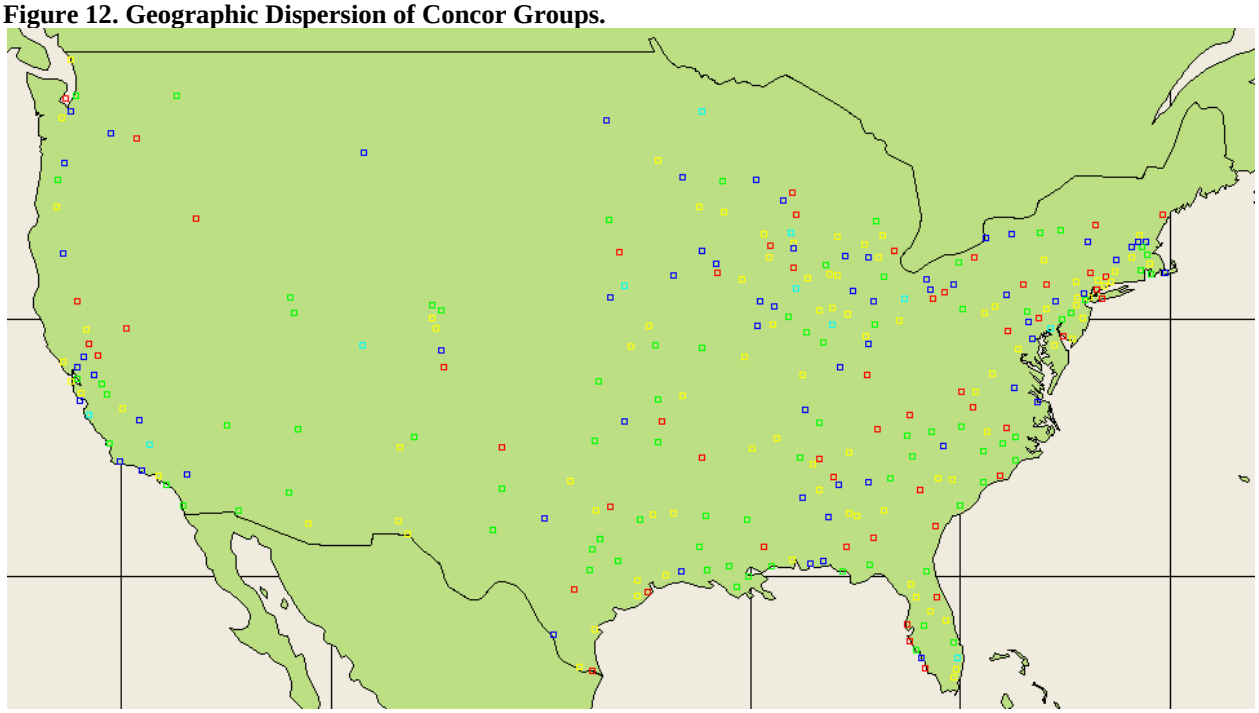


Table 11 lists notable attributes of the Concor groups found in the city-matching analysis that may be relevant to the selection of intervention strategy. The descriptions below highlight those attributes on which the group stands out (i.e., is notably higher or lower than the mean attribute value across Concor groups). Two things to notice about Table 12 are: (1) it begins to give us insight into the kinds of taxpayers per Concor group but it does not tell us about what the best kinds of service to provide them is, and (2) some of the groups (e.g., group 3) provide no guidance – they are unremarkable with respect to taxpayer categories.

Table 11: Sociodemographic Characteristics of Concor Groups.

Concor Group	Attribute
1	New tax payers, low income, small soc net, military, many below poverty, African-American
2	Population approx. 200,000, Low density, high school education, blue collar, immobile
3	White, high school education
4	Low density, highly educated, new tax payers, many no kids, not married, moved recently
5	Huge land area, Highly educated, Pop = 2 mil, high income, large soc net, white collar, Asian, moved recently, high density

6	Population approx. 200,000, Low density, many seniors, more disposable income, married, immobile
7	Huge land area, Pop = 1 mil, new tax payers, high proportion Spanish speaking, little education, much income spent on housing, many kids, agricultural, many below poverty, Hispanic, moved recently
8	Pop = 1.25 mil+ , kids, highly educated, large soc net

Taking a closer look at Group 4, for example, we find one of our test-cities[8], Hartford, to be a central city in the network of cities (see Figure 13). The cities within this group have populations comprised largely of highly educated, single citizens with no children who have relocated relatively recently, new tax payers, living in a city with low social density (i.e., count of people per land area). The low social density, recent move, and high education attributes of this group suggest that interventions involving the use of internet, direct mail or newspapers will be as effective as providing service centers or interventions that foster learning by word-of-mouth.

Figure 13. Network of Cities in Concor Group 4.

As another example, in Group 5, we find a network of large, socially dense cities (population greater than 2 million and large land area) comprised of highly educated, white-collar workers

[8] Four cities were selected for initial simulation-based research for the IRS: Hartford, Orlando, Kansas City, and San Diego.

with high incomes who have recently relocated, and a higher than average Asian population. Two test-cities, Orlando and San Diego, are found in this group (see Figure 14). The high Asian population indicates bi-lingual interventions will be necessary. The high social density indicates the use of opinion-leaders may be effective, and that information will diffuse relatively rapidly.

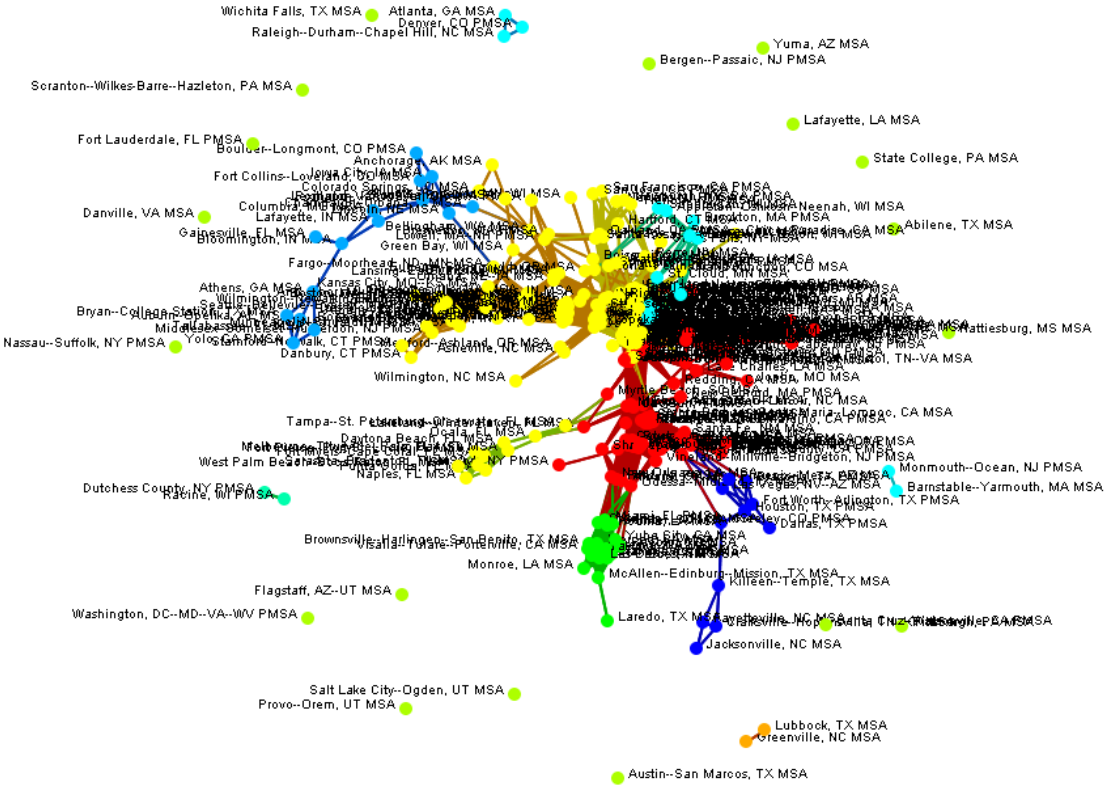
Figure 14. Network of Cities in Concor Group 5.

The city-matching analysis improves on the detailed agent-class analysis in that it is based on CAPs that are more tractable, making it easier to rapidly replicate analyses with other data (e.g., alternative binning schemes, alternative variables). Furthermore, the city-matching analysis provides more information about intervention selection than did the agent-class analysis. This added information is in terms of the attributes associated with each cluster. However, all groups found with this analysis are not equally informative. Group 9, for instance, is comprised of all cities that are not highly similar to any other cities.

3.3.2 Modified City-match Index

In an attempt to increase the tax-relevant information yield of a city-matching analysis, we removed the elements of city-matching CAPs associated with city summary characteristics, retaining only those attributes associated with information access constraints and taxpayer categories. Subsequent Concor clustering of cities based only on taxpayer categories and information access constraints produced groups different from those found when using all elements of the CAP in the prior analysis (see Figure 15).

Figure 15. Similarity in Taxpayer Categories and Access Constraints.



As depicted in Figure 16, closer examination of the network shows several large clusters, accounting for 95 of the cities. Figures 17 and 18 provide close-ups of the largest cluster and a large cluster, respectively.

Figure 16. Large Clusters Account for 95 Cities.

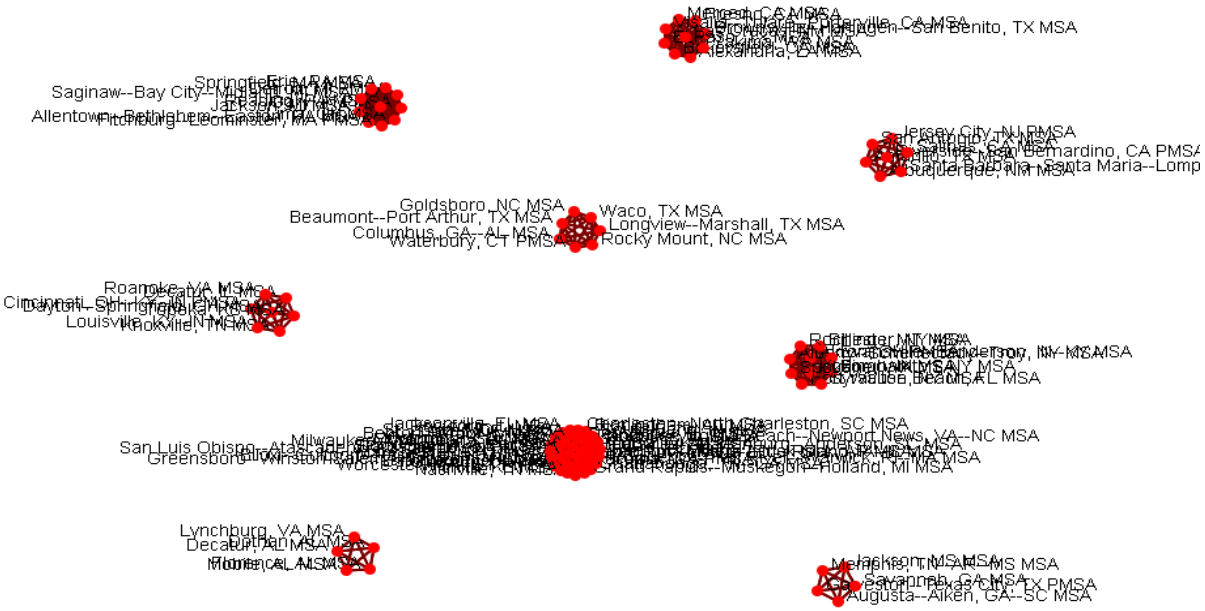


Figure 17. Largest City Cluster.

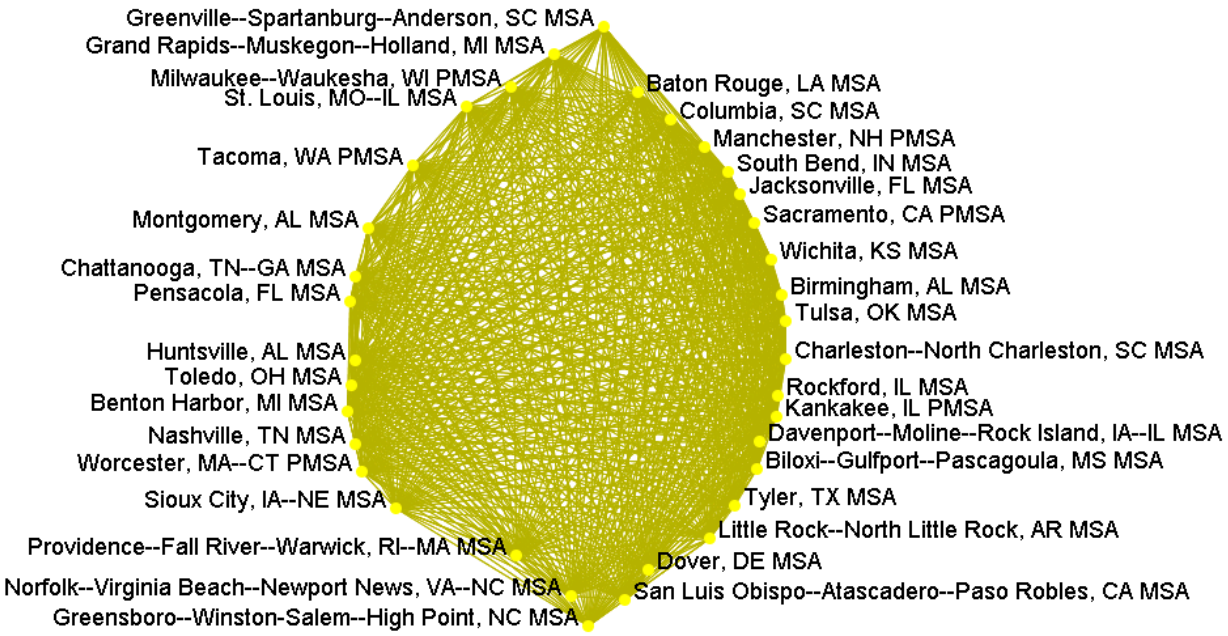
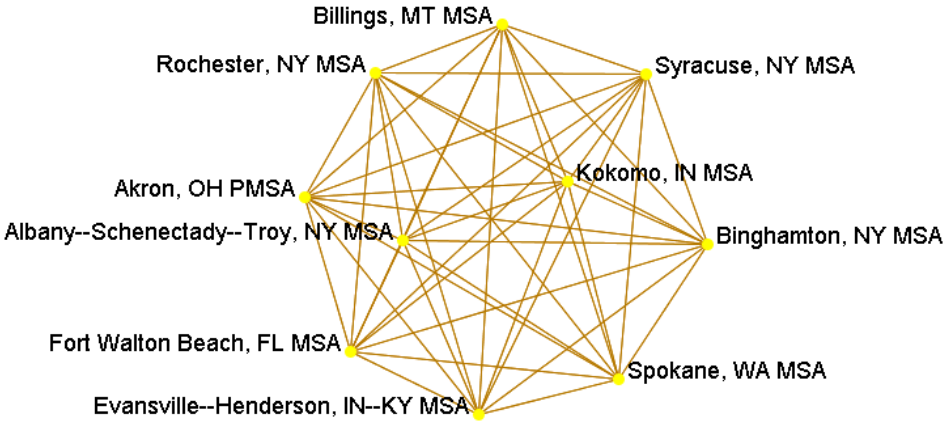


Figure 18. A Large City Cluster.

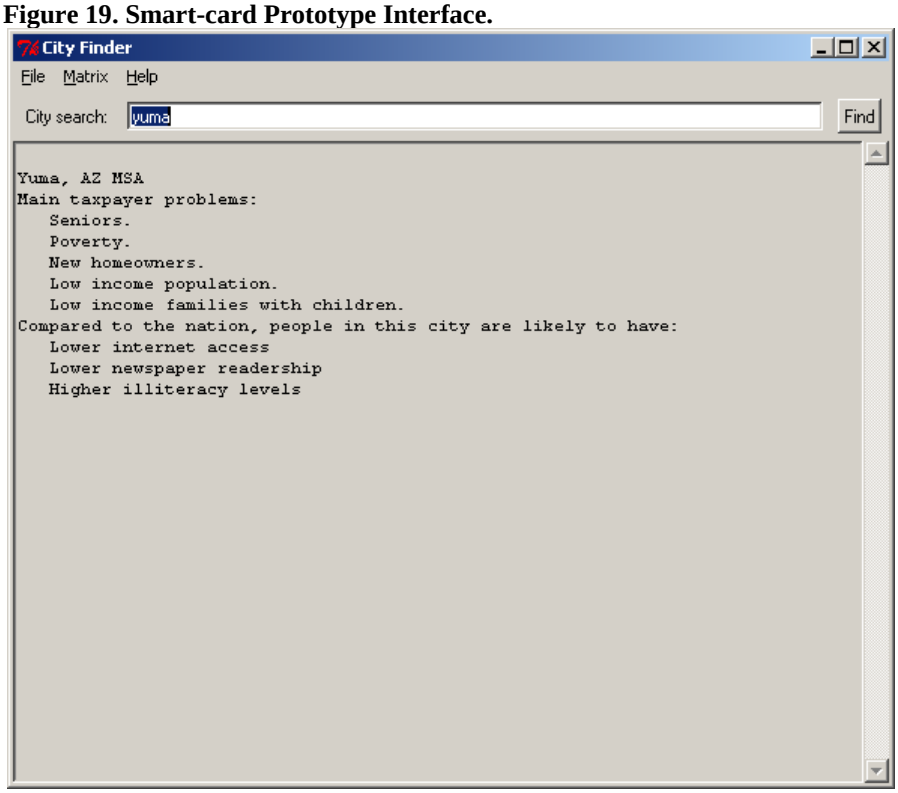


Based on this analysis, we concluded that when we categorize cities based only on attributes associated with taxpayer categories and information access constraints, we still do not obtain adequate information about intervention selection because the analysis only accounts for 95 of the 297 cities.

3.4 Smart-card Prototype

As the social distance metric is refined and validated, the issue of how to best support IRS decisions about intervention strategies must also be addressed. One possibility is a *smart-card* concept that associates cost-effective intervention strategies with cities or city-types via their taxpaying/information access attributes. A simple prototype, which displays taxpayer data at the city level has been built and demonstrated (see Figure 19).

Figure 19. Smart-card Prototype Interface.



In addition to city level results, the Concor group data could be appended to enable searching at the group level. Figure 20 shows a tabulation of the Concor groups found in the modified city-matching analysis in support of this concept. The icons show associated mechanisms for interventions which are likely to be effective in the group.

Figure 20. City Cluster Data for Enhanced Smart-card Prototype.

Regardless of how the smart-card concept is implemented, the general issue that needs to be addressed is one of how to provide IRS personnel with flexible access to the research findings in a manner that most directly supports the policy decisions that must be made.

4 Conclusion and Future Directions

We began this project with a simple approach for finding clusters of similar cities: define agent-classes as combinations of socioeconomic variables relevant to IRS interventions, characterize cities in terms of their agent-class profiles, and find clusters of cities with similar profiles. The main assumption underlying the agent-class analysis framework was that cities with similar agent-class profiles would form natural clusters of socially similar cities. Results from extensive agent-class analyses show this to be untrue. Computer memory limitations associated with 32-bit SAS in MS-Windows prevented the use of most of the available clustering techniques, except for multi-dimensional scaling. The poor fit of MDS solutions to various binning schemes, however, provided little information for identifying city clusters.

An exploratory deep-structure analysis in ORA led to development of an alternative analysis framework – the city-matching analysis. The city-matching analysis, while based on agent-classes, augments the agent-class analysis by shifting the focus of analysis to one more directly associated with the information diffusion characteristics of cities. It also relies on traditional social network analysis techniques, and provides explicit links to IRS classification schemes. Preliminary findings using this analysis framework appear promising.

The city-match index that forms the basis of the city-matching framework is substantially more complex than the agent-class profile that forms the basis of the agent-class framework. Additional research is needed to determine exactly how elements associated with city characteristics, information access constraints, and taxpayer categories should be integrated. The crux of the research issue concerns the derivation of social networks from data sets containing monadic attributes (e.g., socioeconomic variables typically found in census data). Given the difficulty of deducing adequate (and valid) social distance metrics from data containing only monadic attributes, it seems likely that an iterative approach in which a social distance metric is progressively refined (and validated) through multi-agent simulation will be required.

Appendix A. Commonly Occurring Agent-classes

Table 12: City-class Analysis: Commonly Occurring Agent Classes.

Agent Class	City Count	Percent Cities	Mean % of Agent Pop.	Std. of % Agent Pop	Minimum % Agent Pop.	Maximum % Agent Pop.
wf1n01WnM_111n	289	95%	0.079762	0.052267	0.002278	0.306737
wf1n01WnM_112n	294	95%	0.101046	0.060884	0.006763	0.387816
wf1n01WnM_113n	292	95%	0.071709	0.041723	0.002875	0.332526
wf1n01WnM_114n	289	95%	0.071720	0.052578	0.003646	0.329489
wf1n01WnM_212n	284	95%	0.075366	0.055219	0.005695	0.529341
wf1n10unM_011n	285	95%	0.050693	0.034411	0.000854	0.180763
wf1n10unM_012n	293	95%	0.060429	0.030980	0.003015	0.233639
wf1n11WnM_112n	287	95%	0.052190	0.031720	0.002674	0.173251
wf1n20WnM_112n	289	95%	0.065908	0.042815	0.002705	0.226949
wf1n20unM_011n	292	95%	0.071180	0.045922	0.004445	0.306035
wf1n20unM_012n	295	95%	0.101693	0.052379	0.002469	0.277832
wf1n20unM_013n	290	95%	0.078459	0.042455	0.009454	0.278531
wf1n20unM_014n	283	95%	0.052684	0.028665	0.003780	0.172275
wf1n20unS_012n	286	95%	0.057367	0.036608	0.002278	0.218022
wf2m01WnM_011n	283	95%	0.043415	0.028880	0.001209	0.155772
wf2m01WnM_111n	296	95%	0.144225	0.103305	0.004129	0.529870
wf2m01WnM_112n	294	95%	0.131413	0.071544	0.009255	0.390305
wf2m01WnM_113n	291	95%	0.092664	0.046225	0.001281	0.317887
wf2m01WnM_114n	291	95%	0.070237	0.037670	0.004405	0.209056
wf2m01WnM_121n	289	95%	0.054009	0.037349	0.000963	0.211290
wf2m01WnM_211n	297	95%	0.205865	0.114638	0.004841	0.633772
wf2m01WnM_212n	296	95%	0.217092	0.098496	0.013682	0.603798
wf2m01WnM_213n	295	95%	0.124745	0.057368	0.012141	0.405968
wf2m01WnM_214n	285	95%	0.060594	0.033172	0.003628	0.183521
wf2m01WnM_221n	290	95%	0.075510	0.049194	0.004822	0.328297
wf2m01WnM_222n	288	95%	0.063715	0.041369	0.002282	0.278014
wf2m01WnM_311n	294	95%	0.122721	0.056508	0.006375	0.356912
wf2m01WnM_312n	295	95%	0.122201	0.056693	0.008047	0.333828
wf2m01WnM_321n	285	95%	0.065909	0.038484	0.001244	0.217647
wf2m01WnS_112n	286	95%	0.051118	0.032301	0.002550	0.254605
wf2m01WnS_113n	284	95%	0.050194	0.030979	0.001580	0.147904
wf2m01WnS_114n	283	95%	0.040027	0.029220	0.001247	0.177260
wf2m01WnS_211n	284	95%	0.054707	0.040748	0.000975	0.235043
wf2m01WnS_212n	293	95%	0.094334	0.054036	0.002999	0.294649
wf2m01WnS_213n	291	95%	0.077948	0.044723	0.002488	0.237108
wf2m01WnS_312n	284	95%	0.061062	0.034632	0.003689	0.228495
wf2m01unM_011n	294	95%	0.115514	0.075601	0.006122	0.468372
wf2m01unM_012n	288	95%	0.081007	0.044889	0.002488	0.242648
wf2m01unM_013n	288	95%	0.058685	0.032015	0.003794	0.245467
wf2m02WnM_312n	283	95%	0.047877	0.029171	0.003049	0.296845
wf2m11WnM_111n	284	95%	0.053637	0.041146	0.001247	0.247700
wf2m11WnM_112n	293	95%	0.073184	0.046532	0.002488	0.289561
wf2m11WnM_113n	288	95%	0.057833	0.034730	0.002607	0.217529
wf2m11WnM_211n	288	95%	0.063292	0.045874	0.002488	0.258233

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wf2m11WnM_212n	294	95%	0.100575	0.056515	0.005410	0.414301
wf2m11WnM_213n	288	95%	0.065285	0.037577	0.005550	0.231462
wf2m11WnS_113n	283	95%	0.042556	0.026650	0.002030	0.176941
wf2m11WnS_212n	284	95%	0.059951	0.036823	0.001417	0.178309
wf2m11WnS_213n	285	95%	0.053240	0.030057	0.002459	0.185241
wf2m21WnM_111n	287	95%	0.057806	0.043034	0.001281	0.241353
wf2m21WnM_112n	294	95%	0.116113	0.071059	0.008832	0.378238
wf2m21WnM_113n	293	95%	0.120260	0.070572	0.006783	0.402136
wf2m21WnM_114n	285	95%	0.073919	0.048862	0.004566	0.264894
wf2m21WnM_211n	292	95%	0.060494	0.044717	0.002327	0.238586
wf2m21WnM_212n	295	95%	0.127656	0.077163	0.006103	0.684556
wf2m21WnM_213n	293	95%	0.094837	0.054287	0.004414	0.320474
wf2m21WnM_312n	292	95%	0.071909	0.040765	0.002833	0.295168
wf2m21WnS_112n	288	95%	0.071565	0.046353	0.001281	0.293703
wf2m21WnS_113n	294	95%	0.107268	0.057042	0.001507	0.327313
wf2m21WnS_114n	290	95%	0.076069	0.040925	0.005379	0.266394
wf2m21WnS_212n	289	95%	0.086886	0.058132	0.000890	0.351713
wf2m21WnS_213n	292	95%	0.091864	0.043871	0.003674	0.244007
wf2m21unM_013n	284	95%	0.052201	0.033154	0.004233	0.188247
wf2n01WnM_114n	283	95%	0.044193	0.023694	0.003446	0.134775
wf2n01WnM_211n	291	95%	0.060918	0.037852	0.003640	0.212735
wf2n01WnM_212n	292	95%	0.073913	0.040244	0.004369	0.191677
wf2n01WnM_213n	292	95%	0.083426	0.047507	0.004141	0.359814
wf2n01WnM_214n	287	95%	0.082956	0.041451	0.004694	0.243209
wf3m00unM_121n	296	95%	0.163318	0.101348	0.008828	0.633752
wf3m00unM_122n	296	95%	0.118764	0.073289	0.006692	0.439715
wf3m00unM_123n	292	95%	0.073260	0.047362	0.003987	0.258962
wf3m00unM_124n	286	95%	0.067217	0.042469	0.003732	0.214731
wf3m01WnM_121n	296	95%	0.111181	0.069025	0.005133	0.376686
wf3m01WnM_122n	291	95%	0.067345	0.041791	0.002705	0.212649
wf3m01WnM_221n	291	95%	0.089193	0.050529	0.007123	0.327152
wf3m01unM_011n	294	95%	0.083333	0.045516	0.007119	0.298687
wf3m01unM_012n	284	95%	0.045879	0.024355	0.001799	0.166928
wf3m01unM_121n	297	95%	0.490439	0.230434	0.045731	1.358943
wf3m01unM_122n	296	95%	0.290223	0.152911	0.022069	1.048026
wf3m01unM_123n	294	95%	0.149193	0.082863	0.015201	0.573126
wf3m01unM_124n	295	95%	0.138075	0.082011	0.002787	0.644564
wf3m01unM_221n	296	95%	0.122231	0.066246	0.011332	0.534972
wf3m02unM_121n	285	95%	0.058046	0.036285	0.004047	0.234947
wf3n00unM_121n	286	95%	0.073224	0.050528	0.004614	0.293211
wf3n00unM_122n	292	95%	0.095131	0.060589	0.005276	0.398576
wf3n00unM_123n	293	95%	0.111981	0.070456	0.004756	0.423545
wf3n00unM_124n	296	95%	0.161268	0.087948	0.007463	0.545783
wf3n00unM_124y	291	95%	0.121384	0.084360	0.006783	0.529814
wf3n00unM_222n	288	95%	0.062977	0.042894	0.005974	0.276180
wf3n00unS_12xn	286	95%	0.087382	0.066153	0.003023	0.476831
wf3n01WnM_221n	283	95%	0.043032	0.028590	0.003015	0.196262
wf3n01WnM_222n	284	95%	0.055952	0.032493	0.002136	0.197578
wf3n01WnM_224n	284	95%	0.054541	0.030307	0.005737	0.188543

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wf3n01unM_121n	288	95%	0.066080	0.040894	0.002595	0.251112
wf3n01unM_122n	294	95%	0.095804	0.057442	0.003417	0.328581
wf3n01unM_123n	296	95%	0.123693	0.068178	0.008237	0.405497
wf3n01unM_124n	297	95%	0.199459	0.093960	0.013510	0.544117
wf3n01unM_124y	294	95%	0.104646	0.055543	0.011533	0.329588
wf3n01unM_221n	296	95%	0.114499	0.061365	0.008453	0.347444
wf3n01unM_222n	295	95%	0.145279	0.074574	0.008400	0.455129
wf3n01unM_223n	290	95%	0.097467	0.054275	0.005680	0.335043
wf3n01unM_224n	294	95%	0.115832	0.061538	0.004522	0.417299
wf3n01unM_321n	293	95%	0.079953	0.042420	0.010912	0.261398
wf3n01unS_12xn	286	95%	0.087449	0.061872	0.004853	0.561475
wm1n01BnM_111n	284	95%	0.046452	0.037263	0.002486	0.220118
wm1n01WnM_111n	288	95%	0.067372	0.046533	0.003735	0.268794
wm1n01WnM_112n	293	95%	0.077646	0.042232	0.004822	0.272961
wm1n01WnM_212n	284	95%	0.066851	0.041296	0.005712	0.326292
wm1n10WnM_112n	286	95%	0.054497	0.036365	0.003469	0.190277
wm1n10unM_011n	286	95%	0.054756	0.035172	0.003845	0.205718
wm1n10unM_012n	289	95%	0.064083	0.034689	0.002078	0.212140
wm1n10unM_013n	283	95%	0.045920	0.025718	0.004049	0.212256
wm1n20WnM_112n	290	95%	0.060039	0.040912	0.002226	0.268793
wm1n20unM_011n	289	95%	0.068323	0.043819	0.001515	0.239898
wm1n20unM_012n	296	95%	0.105721	0.055487	0.002223	0.370342
wm1n20unM_013n	288	95%	0.075849	0.038562	0.005838	0.226885
wm1n20unS_012n	290	95%	0.058997	0.038689	0.003323	0.268961
wm1n20unS_013n	288	95%	0.062666	0.035755	0.004525	0.176905
wm2m01BnM_311n	294	95%	0.084373	0.063370	0.003132	0.407082
wm2m01BnM_312n	291	95%	0.096081	0.056155	0.004837	0.380554
wm2m01BnM_321n	286	95%	0.081276	0.069994	0.002687	0.414631
wm2m01BnM_421n	288	95%	0.068259	0.057999	0.002097	0.397813
wm2m01WnM_311n	285	95%	0.057494	0.037797	0.003223	0.221389
wm2m01WnM_312n	289	95%	0.074185	0.037970	0.002488	0.206579
wm2m01WnM_313n	284	95%	0.047752	0.026132	0.002419	0.169909
wm2m01WnM_321n	286	95%	0.059176	0.041610	0.003845	0.224923
wm2m01WnM_322n	290	95%	0.061487	0.037636	0.001515	0.217730
wm2m01WnM_411n	284	95%	0.046898	0.027588	0.002488	0.220274
wm2m01WnM_421n	289	95%	0.063640	0.037963	0.001851	0.219321
wm2m01WnM_422n	289	95%	0.058223	0.031937	0.005285	0.201201
wm2m02WnM_421n	284	95%	0.050722	0.034368	0.002076	0.208101
wm2m11BnM_312n	285	95%	0.062555	0.040976	0.002563	0.222651
wm2m21BnM_312n	292	95%	0.090889	0.060114	0.006029	0.405394
wm2m21BnM_313n	287	95%	0.080131	0.051499	0.001304	0.281810
wm2m21BnS_312n	284	95%	0.066748	0.049418	0.001418	0.273388
wm2m21BnS_313n	289	95%	0.077987	0.048098	0.002122	0.255565
wm2m21WnM_312n	289	95%	0.071332	0.043154	0.005059	0.262501
wm2m21WnM_313n	288	95%	0.060511	0.036871	0.004401	0.269896
wm2m21WnS_313n	292	95%	0.065764	0.038489	0.002756	0.215690
wm2n01BnM_211n	284	95%	0.056626	0.039755	0.002223	0.255874
wm2n01BnM_311n	286	95%	0.061763	0.041858	0.003594	0.246386
wm2n01WnM_212n	284	95%	0.049656	0.030654	0.002282	0.191654

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wm3m00unM_121n	286	95%	0.054001	0.045896	0.000854	0.385082
wm3m00unM_122n	287	95%	0.070714	0.051534	0.002278	0.257124
wm3m00unM_123n	284	95%	0.053635	0.037622	0.001244	0.188728
wm3m00unM_124n	284	95%	0.058042	0.039572	0.001507	0.299552
wm3m00unM_221n	293	95%	0.113213	0.081194	0.007256	0.534401
wm3m00unM_222n	287	95%	0.078752	0.057410	0.002728	0.389998
wm3m01BnM_221n	284	95%	0.058111	0.045363	0.001437	0.265227
wm3m01BnM_321n	288	95%	0.066440	0.045296	0.001130	0.249915
wm3m01WnM_221n	291	95%	0.063707	0.040881	0.001709	0.217067
wm3m01WnM_321n	295	95%	0.082706	0.044921	0.005582	0.248537
wm3m01WnM_421n	292	95%	0.054323	0.027917	0.002782	0.172821
wm3m01unM_121n	287	95%	0.053139	0.041235	0.001048	0.210019
wm3m01unM_122n	289	95%	0.069885	0.049425	0.002377	0.329588
wm3m01unM_123n	288	95%	0.052319	0.037935	0.005712	0.235461
wm3m01unM_221n	294	95%	0.209739	0.126754	0.012056	0.740356
wm3m01unM_222n	295	95%	0.143776	0.090008	0.004414	0.481394
wm3m01unM_223n	289	95%	0.064738	0.042555	0.004917	0.291434
wm3m01unM_321n	294	95%	0.175439	0.092855	0.015643	0.756592
wm3m01unM_322n	283	95%	0.056094	0.037301	0.003057	0.267080
wm3m02unM_321n	284	95%	0.052517	0.031814	0.004345	0.204013
wf1m01WnS_212n	277	90%	0.049635	0.033727	0.000635	0.188737
wf1m01WnS_213n	273	90%	0.042475	0.031013	0.001424	0.232028
wf1m11WnS_212n	268	90%	0.039319	0.028479	0.000446	0.168861
wf1m21WnS_113n	274	90%	0.044412	0.032400	0.000648	0.178665
wf1n01WnM_211n	277	90%	0.049517	0.033915	0.004468	0.217230
wf1n01WnM_213n	274	90%	0.057579	0.039083	0.003269	0.328313
wf1n01WnS_112n	282	90%	0.048194	0.036461	0.001879	0.237746
wf1n01WnS_113n	278	90%	0.046607	0.033720	0.002261	0.237395
wf1n01WnS_114n	276	90%	0.060933	0.056057	0.003024	0.354594
wf1n01WnS_114y	269	90%	0.165974	0.286832	0.001935	1.886012
wf1n01WnS_11xn	279	90%	0.341161	0.467011	0.005032	3.945229
wf1n01WnS_212n	273	90%	0.054817	0.038606	0.003132	0.355588
wf1n10WnM_111n	274	90%	0.043424	0.031463	0.001281	0.192082
wf1n10WnM_112n	279	90%	0.057526	0.033830	0.003987	0.182404
wf1n10WnM_113n	273	90%	0.039857	0.026367	0.002182	0.173620
wf1n10unM_013n	277	90%	0.044577	0.026680	0.001551	0.202193
wf1n11WnM_111n	272	90%	0.040780	0.028469	0.001095	0.146796
wf1n11WnM_113n	269	90%	0.037364	0.021388	0.004414	0.110523
wf1n20WnM_111n	275	90%	0.041041	0.030749	0.001019	0.179500
wf1n20WnM_113n	271	90%	0.048664	0.030738	0.002370	0.192050
wf1n20WnS_113n	275	90%	0.034936	0.022618	0.002040	0.138777
wf1n20unS_013n	281	90%	0.062516	0.035202	0.002488	0.270906
wf1n20unS_014n	274	90%	0.047654	0.025304	0.002782	0.134051
wf2m01WnM_012n	274	90%	0.036760	0.021334	0.002833	0.124194
wf2m01WnM_122n	278	90%	0.043313	0.029307	0.003147	0.196894
wf2m01WnM_313n	279	90%	0.064289	0.038467	0.003264	0.219223
wf2m01WnM_322n	274	90%	0.050392	0.029900	0.004240	0.201433
wf2m01WnM_411n	269	90%	0.034384	0.019307	0.002662	0.108165
wf2m01WnS_111n	268	90%	0.035916	0.027941	0.001351	0.236652

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wf2m01WnS_214n	270	90%	0.038084	0.024366	0.003024	0.203994
wf2m01WnS_311n	269	90%	0.034743	0.022711	0.001709	0.117182
wf2m01unM_014n	279	90%	0.050210	0.025801	0.003726	0.137314
wf2m01unM_121n	274	90%	0.033119	0.021400	0.005214	0.133572
wf2m02WnM_311n	281	90%	0.045141	0.024791	0.006265	0.127576
wf2m02WnM_321n	275	90%	0.034538	0.023920	0.002614	0.120412
wf2m03WnM_311n	268	90%	0.035883	0.028804	0.003089	0.215867
wf2m11WnM_114n	274	90%	0.038181	0.021356	0.001134	0.109715
wf2m11WnM_311n	277	90%	0.043357	0.029557	0.004910	0.194032
wf2m11WnM_312n	282	90%	0.056582	0.030368	0.006051	0.189837
wf2m11WnS_112n	270	90%	0.037232	0.029248	0.000427	0.210879
wf2m21WnM_013n	270	90%	0.032243	0.017204	0.002834	0.108394
wf2m21WnM_311n	272	90%	0.037680	0.024214	0.002276	0.149350
wf2m21WnS_214n	274	90%	0.045497	0.026413	0.004452	0.151147
wf2m21WnS_312n	282	90%	0.051737	0.034671	0.001281	0.254661
wf2m21WnS_313n	274	90%	0.042153	0.024509	0.002136	0.142129
wf2m21unM_011n	272	90%	0.040560	0.029124	0.001579	0.246813
wf2m21unM_012n	280	90%	0.056745	0.033067	0.002598	0.173227
wf2m21unM_014n	272	90%	0.048066	0.034663	0.004240	0.241224
wf2m21unS_013n	282	90%	0.050419	0.029985	0.000427	0.211826
wf2m21unS_014n	276	90%	0.048673	0.031422	0.001507	0.233503
wf2m22WnM_212n	274	90%	0.037885	0.025389	0.001655	0.160199
wf2m22WnM_312n	280	90%	0.048647	0.028317	0.002278	0.179349
wf2m22WnS_113n	271	90%	0.039562	0.025182	0.002958	0.160996
wf2m22WnS_312n	270	90%	0.035797	0.025192	0.002594	0.176076
wf2n01WnM_221n	272	90%	0.037690	0.026715	0.001482	0.155182
wf2n01WnM_222n	279	90%	0.038744	0.026771	0.004567	0.157314
wf2n01WnM_223n	282	90%	0.042990	0.031585	0.003960	0.300279
wf2n01WnM_224n	278	90%	0.046415	0.027318	0.001996	0.185006
wf2n01WnM_311n	277	90%	0.039914	0.025219	0.003132	0.188838
wf2n01WnM_312n	281	90%	0.059535	0.030999	0.003732	0.205286
wf2n01WnM_313n	271	90%	0.059718	0.032882	0.003269	0.165672
wf2n01WnM_321n	272	90%	0.040332	0.027104	0.001141	0.158576
wf2n01WnM_322n	274	90%	0.044385	0.026397	0.004522	0.194312
wf2n01WnM_323n	272	90%	0.042847	0.027048	0.001655	0.208239
wf2n01WnS_212n	272	90%	0.040759	0.026554	0.000680	0.154994
wf2n01WnS_213n	281	90%	0.046032	0.028283	0.003094	0.165672
wf2n01WnS_214n	279	90%	0.053817	0.036089	0.004452	0.216958
wf2n01unM_124y	272	90%	0.033415	0.023283	0.001920	0.145625
wf3m00unS_12xn	273	90%	0.068064	0.058095	0.002184	0.367968
wf3m01WnM_123n	277	90%	0.043039	0.027482	0.002488	0.190805
wf3m01WnM_124n	280	90%	0.039739	0.025792	0.002488	0.146795
wf3m01WnM_211n	271	90%	0.031520	0.022208	0.000838	0.156765
wf3m01WnM_222n	277	90%	0.037690	0.022218	0.004445	0.119572
wf3m01WnM_321n	282	90%	0.037747	0.021192	0.001709	0.160670
wf3m01unM_222n	274	90%	0.042000	0.030612	0.003559	0.259774
wf3m01unM_321n	272	90%	0.039705	0.026283	0.001339	0.188062
wf3m01unS_121n	279	90%	0.065372	0.076302	0.000890	0.691563
wf3m01unS_122n	276	90%	0.046339	0.050874	0.001027	0.560949

Agent Class	City Count	Percent Cities	Mean % of Agent Pop.	Std. of % Agent Pop	Minimum % Agent Pop.	Maximum % Agent Pop.
wf3m01unS_12xn	281	90%	0.065304	0.046960	0.002963	0.333787
wf3n00unM_221n	282	90%	0.054513	0.038534	0.004036	0.213803
wf3n00unM_223n	269	90%	0.042540	0.031345	0.004874	0.203013
wf3n00unS_124n	270	90%	0.037835	0.024806	0.003287	0.131139
wf3n01WnM_124n	278	90%	0.048638	0.027356	0.002065	0.167763
wf3n01WnM_223n	277	90%	0.046072	0.029070	0.003768	0.240681
wf3n01WnM_321n	278	90%	0.039391	0.022643	0.002705	0.182502
wf3n01unS_124n	277	90%	0.044872	0.030393	0.001244	0.160537
wm1n01BnM_112n	282	90%	0.045978	0.030321	0.001755	0.190277
wm1n01BnM_211n	277	90%	0.061898	0.047488	0.000718	0.247264
wm1n01BnM_212n	279	90%	0.065159	0.044454	0.004364	0.259385
wm1n01BnS_11xn	273	90%	0.093456	0.160983	0.002377	1.954041
wm1n01BnS_212n	277	90%	0.048645	0.041080	0.001162	0.301037
wm1n01BnS_213n	268	90%	0.039478	0.032184	0.000743	0.237395
wm1n01WnM_113n	282	90%	0.056692	0.037430	0.001956	0.295251
wm1n01WnM_114n	273	90%	0.061082	0.044786	0.003844	0.314721
wm1n01WnM_211n	277	90%	0.049966	0.031985	0.001507	0.188906
wm1n01WnM_213n	274	90%	0.053560	0.035704	0.004837	0.237322
wm1n01WnS_112n	269	90%	0.038070	0.030044	0.001281	0.194793
wm1n01WnS_11xn	279	90%	0.223841	0.294005	0.000921	2.268025
wm1n01WnS_212n	273	90%	0.050156	0.034585	0.001424	0.232344
wm1n10WnM_111n	272	90%	0.039477	0.029946	0.002354	0.195508
wm1n10unM_014n	269	90%	0.035323	0.021458	0.001281	0.164719
wm1n20WnM_111n	269	90%	0.036285	0.028077	0.000523	0.212842
wm1n20WnM_113n	268	90%	0.042344	0.027795	0.001675	0.138974
wm1n20unM_014n	274	90%	0.054255	0.031842	0.003248	0.154332
wm1n20unS_014n	277	90%	0.045447	0.027013	0.004024	0.163950
wm2m01BnM_211n	272	90%	0.038960	0.036417	0.001507	0.189531
wm2m01BnM_212n	278	90%	0.048613	0.036929	0.002327	0.214732
wm2m01BnM_213n	277	90%	0.037232	0.025875	0.001949	0.146148
wm2m01BnM_313n	281	90%	0.056991	0.037985	0.003417	0.224333
wm2m01BnM_322n	282	90%	0.061096	0.042031	0.002648	0.286888
wm2m01BnM_411n	281	90%	0.057426	0.045321	0.000854	0.255186
wm2m01BnM_412n	275	90%	0.048824	0.030421	0.003132	0.163331
wm2m01BnM_422n	273	90%	0.045594	0.030969	0.002065	0.226136
wm2m01BnS_312n	278	90%	0.055181	0.038014	0.002823	0.249502
wm2m01BnS_313n	268	90%	0.037833	0.023032	0.000784	0.132909
wm2m01WnM_212n	271	90%	0.040732	0.027467	0.001214	0.215373
wm2m01WnM_412n	275	90%	0.052855	0.025789	0.006860	0.177992
wm2m01WnS_312n	277	90%	0.042610	0.027031	0.001300	0.144939
wm2m01WnS_313n	270	90%	0.035598	0.023242	0.002212	0.208716
wm2m02WnM_422n	276	90%	0.046806	0.028767	0.002546	0.177907
wm2m02WnM_621n	269	90%	0.042281	0.024508	0.002182	0.160470
wm2m03WnM_421n	279	90%	0.042565	0.030275	0.000931	0.172098
wm2m11BnM_311n	269	90%	0.040588	0.036463	0.001639	0.223802
wm2m11BnS_312n	275	90%	0.043772	0.030618	0.001200	0.161963
wm2m11BnS_313n	271	90%	0.038067	0.025531	0.001851	0.172133
wm2m11WnM_312n	281	90%	0.046179	0.027849	0.002567	0.145304
wm2m11WnM_313n	270	90%	0.037149	0.021379	0.005060	0.146148

300 Cities

Agent Class	City Count	Percent Cities	Mean % of Agent Pop.	Std. of % Agent Pop	Minimum % Agent Pop.	Maximum % Agent Pop.
wm2m11WnS_312n	268	90%	0.033082	0.023889	0.001229	0.134718
wm2m11WnS_313n	272	90%	0.034798	0.021355	0.002121	0.125544
wm2m21BnM_213n	270	90%	0.039796	0.031982	0.001724	0.198891
wm2m21BnM_311n	268	90%	0.044857	0.036701	0.001091	0.211314
wm2m21BnM_322n	269	90%	0.043123	0.036996	0.001050	0.258099
wm2m21BnM_412n	273	90%	0.052202	0.036770	0.002668	0.218585
wm2m21BnS_213n	269	90%	0.044893	0.038573	0.000959	0.259583
wm2m21BnS_214n	279	90%	0.042611	0.029056	0.001020	0.163056
wm2m21WnM_314n	268	90%	0.037315	0.024201	0.003374	0.129681
wm2m21WnM_412n	275	90%	0.049630	0.030107	0.005227	0.164459
wm2m21WnS_312n	279	90%	0.050471	0.037050	0.001275	0.223595
wm2m21WnS_314n	275	90%	0.045697	0.029356	0.003317	0.193571
wm2m21WnS_412n	278	90%	0.039565	0.025806	0.002370	0.245722
wm2m21WnS_413n	272	90%	0.041878	0.024265	0.001779	0.129986
wm2m22WnS_413n	271	90%	0.038351	0.024585	0.002278	0.150933
wm2n01BnM_212n	282	90%	0.054337	0.036571	0.002226	0.199123
wm2n01BnM_213n	280	90%	0.047616	0.029411	0.001522	0.171205
wm2n01BnM_214n	272	90%	0.042109	0.027815	0.004896	0.241976
wm2n01BnM_312n	282	90%	0.065929	0.040187	0.007226	0.231294
wm2n01BnS_312n	272	90%	0.044925	0.031818	0.002351	0.190696
wm2n01WnM_211n	273	90%	0.044537	0.028044	0.001996	0.142658
wm2n01WnM_213n	278	90%	0.047571	0.026961	0.002488	0.165904
wm2n01WnM_311n	275	90%	0.042349	0.024973	0.002612	0.155922
wm2n01WnM_312n	279	90%	0.058297	0.031341	0.004522	0.222199
wm2n01WnS_312n	272	90%	0.036058	0.023848	0.004634	0.171447
wm3m00unM_321n	277	90%	0.047715	0.032521	0.004369	0.219243
wm3m01BnM_222n	271	90%	0.043132	0.032618	0.000997	0.286334
wm3m01WnM_222n	279	90%	0.051897	0.033215	0.002732	0.213987
wm3m01WnM_322n	281	90%	0.042425	0.025337	0.002182	0.159077
wm3m01unM_124n	281	90%	0.061297	0.040874	0.004917	0.228497
wm3m01unM_224n	282	90%	0.054539	0.034104	0.004883	0.242518
wm3m01unM_421n	278	90%	0.057066	0.036291	0.001810	0.263021
wm3m02WnM_321n	268	90%	0.032467	0.020571	0.002674	0.161729
wm3m02WnM_421n	269	90%	0.034979	0.019198	0.002377	0.104592
wm3m02WnM_621n	268	90%	0.039832	0.031483	0.000753	0.306950

Appendix B. Number of Unique Agent-classes per City.

Table 13. Unique Agent-classes per City.

City ID	Count of Unique Agent classes	Census Bureau Metropolitan Area Name
5600	9279	New York, NY PMSA
4480	7936	Los Angeles--Long Beach, CA PMSA
1600	3675	Chicago, IL PMSA
8840	3090	Washington, DC--MD--VA--WV PMSA
5000	2577	Miami, FL PMSA
7360	2156	San Francisco, CA PMSA
5775	1992	Oakland, CA PMSA
5945	1968	Orange County, CA PMSA
1120	1897	Boston, MA--NH PMSA
3320	1860	Honolulu, HI MSA
7400	1842	San Jose, CA PMSA
6160	1820	Philadelphia, PA--NJ PMSA
7320	1781	San Diego, CA MSA
3360	1496	Houston, TX PMSA
6780	1479	Riverside--San Bernardino, CA PMSA
520	1387	Atlanta, GA MSA
5640	1286	Newark, NJ PMSA
2160	1276	Detroit, MI PMSA
1920	1122	Dallas, TX PMSA
7600	1049	Seattle--Bellevue--Everett, WA PMSA
5380	1017	Nassau--Suffolk, NY PMSA
6200	1008	Phoenix--Mesa, AZ MSA
2680	980	Fort Lauderdale, FL PMSA
720	936	Baltimore, MD PMSA
875	926	Bergen--Passaic, NJ PMSA
6920	882	Sacramento, CA PMSA
2840	872	Fresno, CA MSA
3640	845	Jersey City, NJ PMSA
8280	755	Tampa--St. Petersburg--Clearwater, FL MSA
5720	680	Norfolk--Virginia Beach--Newport News, VA--NC MSA
5960	678	Orlando, FL MSA
4120	645	Las Vegas, NV--AZ MSA
6440	610	Portland--Vancouver, OR--WA PMSA
5015	609	Middlesex--Somerset--Hunterdon, NJ PMSA
8960	609	West Palm Beach--Boca Raton, FL MSA
1680	604	Cleveland--Lorain--Elyria, OH PMSA
2080	602	Denver, CO PMSA
7240	565	San Antonio, TX MSA
5120	529	Minneapolis--St. Paul, MN--WI MSA
8780	505	Visalia--Tulare--Porterville, CA MSA
680	487	Bakersfield, CA MSA
5560	481	New Orleans, LA MSA
8120	479	Stockton--Lodi, CA MSA
7040	460	St. Louis, MO--IL MSA
2800	457	Fort Worth--Arlington, TX PMSA

City ID	Count of Unique Agent classes	Census Bureau Metropolitan Area Name
6480	455	Providence--Fall River--Warwick, RI--MA MSA
8735	431	Ventura, CA PMSA
200	428	Albuquerque, NM MSA
8200	383	Tacoma, WA PMSA
3760	379	Kansas City, MO--KS MSA
8520	378	Tucson, AZ MSA
2320	374	El Paso, TX MSA
1520	372	Charlotte--Gastonia--Rock Hill, NC--SC MSA
3280	354	Hartford, CT MSA
3600	351	Jacksonville, FL MSA
6640	351	Raleigh--Durham--Chapel Hill, NC MSA
6280	346	Pittsburgh, PA MSA
5190	345	Monmouth--Ocean, NJ PMSA
8720	341	Vallejo--Fairfield--Napa, CA PMSA
4880	339	McAllen--Edinburg--Mission, TX MSA
640	337	Austin--San Marcos, TX MSA
3120	328	Greensboro--Winston-Salem--High Point, NC MSA
1840	323	Columbus, OH MSA
1280	306	Buffalo--Niagara Falls, NY MSA
7160	301	Salt Lake City--Ogden, UT MSA
5080	287	Milwaukee--Waukesha, WI PMSA
5360	286	Nashville, TN MSA
4920	277	Memphis, TN--AR--MS MSA
5170	276	Modesto, CA MSA
1640	267	Cincinnati, OH--KY--IN PMSA
6760	266	Richmond--Petersburg, VA MSA
7480	261	Santa Barbara--Santa Maria--Lompoc, CA MSA
3480	258	Indianapolis, IN MSA
7120	255	Salinas, CA MSA
6840	252	Rochester, NY MSA
5880	249	Oklahoma City, OK MSA
1240	229	Brownsville--Harlingen--San Benito, TX MSA
4940	222	Merced, CA MSA
7500	218	Santa Rosa, CA PMSA
8160	206	Syracuse, NY MSA
2560	200	Fayetteville, NC MSA
3810	199	Killeen--Temple, TX MSA
1160	196	Bridgeport, CT PMSA
8040	191	Stamford--Norwalk, CT PMSA
4520	189	Louisville, KY--IN MSA
9340	189	Yuba City, CA MSA
2620	184	Flagstaff, AZ--UT MSA
8000	181	Springfield, MA MSA
1000	180	Birmingham, AL MSA
8560	178	Tulsa, OK MSA
1720	177	Colorado Springs, CO MSA
2000	177	Dayton--Springfield, OH MSA
9260	170	Yakima, WA MSA
7510	169	Sarasota--Bradenton, FL MSA

City ID	Count of Unique Agent classes	Census Bureau Metropolitan Area Name
560	167	Atlantic--Cape May, NJ PMSA
7485	166	Santa Cruz--Watsonville, CA PMSA
4000	164	Lancaster, PA MSA
8480	164	Trenton, NJ PMSA
380	163	Anchorage, AK MSA
6080	163	Pensacola, FL MSA
160	162	Albany--Schenectady--Troy, NY MSA
3000	162	Grand Rapids--Muskegon--Holland, MI MSA
3980	162	Lakeland--Winter Haven, FL MSA
5160	162	Mobile, AL MSA
3160	161	Greenville--Spartanburg--Anderson, SC MSA
2960	156	Gary, IN PMSA
9160	154	Wilmington--Newark, DE--MD PMSA
240	152	Allentown--Bethlehem--Easton, PA MSA
4560	150	Lowell, MA--NH PMSA
2700	149	Fort Myers--Cape Coral, FL MSA
1440	148	Charleston--North Charleston, SC MSA
600	147	Augusta--Aiken, GA--SC MSA
5480	146	New Haven--Meriden, CT PMSA
1760	144	Columbia, SC MSA
3240	143	Harrisburg--Lebanon--Carlisle, PA MSA
1200	141	Brockton, MA PMSA
2710	141	Fort Pierce--Port St. Lucie, FL MSA
4900	141	Melbourne--Titusville--Palm Bay, FL MSA
4080	137	Laredo, TX MSA
5400	137	New Bedford, MA PMSA
6720	137	Reno, NV MSA
3560	135	Jackson, MS MSA
7840	134	Spokane, WA MSA
9240	133	Worcester, MA--CT PMSA
5660	131	Newburgh, NY--PA PMSA
760	130	Baton Rouge, LA MSA
9360	130	Yuma, AZ MSA
3605	129	Jacksonville, NC MSA
5345	128	Naples, FL MSA
8400	128	Toledo, OH MSA
440	126	Ann Arbor, MI PMSA
4680	123	Macon, GA MSA
7560	123	Scranton--Wilkes-Barre--Hazleton, PA MSA
1620	119	Chico--Paradise, CA MSA
7680	119	Shreveport--Bossier City, LA MSA
7080	118	Salem, OR PMSA
9040	117	Wichita, KS MSA
1880	109	Corpus Christi, TX MSA
8240	109	Tallahassee, FL MSA
80	108	Akron, OH PMSA
4160	108	Lawrence, MA--NH PMSA
4100	107	Las Cruces, NM MSA
9270	107	Yolo, CA PMSA

City ID	Count of Unique Agent classes	Census Bureau Metropolitan Area Name
9320	106	Youngstown--Warren, OH MSA
920	105	Biloxi--Gulfport--Pascagoula, MS MSA
2020	105	Daytona Beach, FL MSA
1150	101	Bremerton, WA PMSA
2580	99	Fayetteville--Springdale--Rogers, AR MSA
840	98	Beaumont--Port Arthur, TX MSA
4400	98	Little Rock--North Little Rock, AR MSA
5920	98	Omaha, NE--IA MSA
1080	97	Boise City, ID MSA
3840	97	Knoxville, TN MSA
1560	94	Chattanooga, TN--GA MSA
6680	94	Reading, PA MSA
8680	94	Utica--Rome, NY MSA
2760	91	Fort Wayne, IN MSA
3720	90	Kalamazoo--Battle Creek, MI MSA
5240	90	Montgomery, AL MSA
6740	89	Richland--Kennewick--Pasco, WA MSA
7920	89	Springfield, MO MSA
2750	88	Fort Walton Beach, FL MSA
1800	87	Columbus, GA--AL MSA
1930	87	Danbury, CT PMSA
2920	87	Galveston--Texas City, TX PMSA
960	85	Binghamton, NY MSA
4040	85	Lansing--East Lansing, MI MSA
7460	84	San Luis Obispo--Atascadero--Paso Robles, CA MSA
7520	82	Savannah, GA MSA
320	81	Amarillo, TX MSA
3060	81	Greeley, CO PMSA
6960	79	Saginaw--Bay City--Midland, MI MSA
2180	78	Dothan, AL MSA
2900	78	Gainesville, FL MSA
5790	78	Ocala, FL MSA
2400	77	Eugene--Springfield, OR MSA
5910	77	Olympia, WA PMSA
2281	75	Dutchess County, NY PMSA
3290	75	Hickory--Morganton--Lenoir, NC MSA
4720	74	Madison, WI MSA
6520	74	Provo--Orem, UT MSA
3440	73	Huntsville, AL MSA
6880	73	Rockford, IL MSA
860	72	Bellingham, WA MSA
1145	71	Brazoria, TX PMSA
2120	70	Des Moines, IA MSA
3880	69	Lafayette, LA MSA
4600	69	Lubbock, TX MSA
5800	69	Odessa--Midland, TX MSA
7490	67	Santa Fe, NM MSA
6690	66	Redding, CA MSA
1320	65	Canton--Massillon, OH MSA

City ID	Count of Unique Agent classes	Census Bureau Metropolitan Area Name
2190	65	Dover, DE MSA
3680	64	Johnstown, PA MSA
1660	62	Clarksville--Hopkinsville, TN--KY MSA
2640	62	Flint, MI PMSA
3660	60	Johnson City--Kingsport--Bristol, TN--VA MSA
1125	59	Boulder--Longmont, CO PMSA
2670	59	Fort Collins--Loveland, CO MSA
2330	58	Elkhart--Goshen, IN MSA
3960	58	Lake Charles, LA MSA
4280	58	Lexington, KY MSA
6120	58	Peoria--Pekin, IL MSA
9200	58	Wilmington, NC MSA
220	56	Alexandria, LA MSA
2360	56	Erie, PA MSA
8640	56	Tyler, TX MSA
8760	55	Vineland--Millville--Bridgeton, NJ PMSA
9280	55	York, PA MSA
7800	54	South Bend, IN MSA
870	53	Benton Harbor, MI MSA
3150	53	Greenville, NC MSA
6015	53	Panama City, FL MSA
8880	53	Waterbury, CT PMSA
2980	51	Goldsboro, NC MSA
4640	51	Lynchburg, VA MSA
6895	51	Rocky Mount, NC MSA
2600	50	Fitchburg--Leominster, MA PMSA
8800	50	Waco, TX MSA
500	49	Athens, GA MSA
2030	49	Decatur, AL MSA
4890	49	Medford--Ashland, OR MSA
8140	49	Sumter, SC MSA
480	48	Asheville, NC MSA
460	47	Appleton--Oshkosh--Neenah, WI MSA
6800	47	Roanoke, VA MSA
1260	46	Bryan--College Station, TX MSA
3080	45	Green Bay, WI MSA
3200	45	Hamilton--Middletown, OH PMSA
3350	45	Houma, LA MSA
1960	44	Davenport--Moline--Rock Island, IA--IL MSA
1400	43	Champaign--Urbana, IL MSA
3610	43	Jamestown, NY MSA
3710	43	Joplin, MO MSA
4420	43	Longview--Marshall, TX MSA
8050	42	State College, PA MSA
1540	41	Charlottesville, VA MSA
5200	39	Monroe, LA MSA
5330	39	Myrtle Beach, SC MSA
740	38	Barnstable--Yarmouth, MA MSA
6980	38	St. Cloud, MN MSA

City ID	Count of Unique Agent classes	Census Bureau Metropolitan Area Name
8940	38	Wausau, WI MSA
9080	38	Wichita Falls, TX MSA
40	37	Abilene, TX MSA
8600	37	Tuscaloosa, AL MSA
120	36	Albany, GA MSA
2720	35	Fort Smith, AR--OK MSA
6400	35	Portland, ME MSA
6560	35	Pueblo, CO MSA
6580	35	Punta Gorda, FL MSA
2650	34	Florence, AL MSA
4360	34	Lincoln, NE MSA
1040	33	Bloomington--Normal, IL MSA
1740	33	Columbia, MO MSA
3520	33	Jackson, MI MSA
4760	33	Manchester, NH PMSA
1950	31	Danville, VA MSA
9140	29	Williamsport, PA MSA
580	28	Auburn--Opelika, AL MSA
3920	28	Lafayette, IN MSA
7620	28	Sheboygan, WI MSA
2440	27	Evansville--Henderson, IN--KY MSA
3740	27	Kankakee, IL PMSA
7610	27	Sharon, PA MSA
8440	27	Topeka, KS MSA
8920	27	Waterloo--Cedar Falls, IA MSA
450	26	Anniston, AL MSA
280	25	Altoona, PA MSA
1020	25	Bloomington, IN MSA
2240	25	Duluth--Superior, MN--WI MSA
8320	25	Terre Haute, IN MSA
3850	24	Kokomo, IN MSA
4320	24	Lima, OH MSA
4800	24	Mansfield, OH MSA
1360	23	Cedar Rapids, IA MSA
3180	23	Hagerstown, MD PMSA
3580	23	Jackson, TN MSA
5280	23	Muncie, IN MSA
880	22	Billings, MT MSA
2290	22	Eau Claire, WI MSA
3285	22	Hattiesburg, MS MSA
5350	21	Nashua, NH PMSA
6820	21	Rochester, MN MSA
2520	20	Fargo--Moorhead, ND--MN MSA
2975	20	Glens Falls, NY MSA
3620	20	Janesville--Beloit, WI MSA
3800	20	Kenosha, WI PMSA
2880	19	Gadsden, AL MSA
7760	19	Sioux Falls, SD MSA
6600	17	Racine, WI PMSA

City ID	Count of Unique Agent classes	Census Bureau Metropolitan Area Name
3870	16	La Crosse, WI--MN MSA
7720	16	Sioux City, IA--NE MSA
2040	15	Decatur, IL MSA
2995	15	Grand Junction, CO MSA
3500	14	Iowa City, IA MSA
7000	14	St. Joseph, MO MSA
7880	9	Springfield, IL MSA

Appendix C. Number of Agent-classes Found in Exactly Two Cities, per City.

Table 14. Agent-classes Found in Exactly Two Cities.

City ID	Count of "2-City" Agent classes	Census Bureau Metropolitan Area Name
5600	6482	New York, NY PMSA
4480	6059	Los Angeles--Long Beach, CA PMSA
1600	3000	Chicago, IL PMSA
8840	2345	Washington, DC--MD--VA--WV PMSA
5000	1767	Miami, FL PMSA
7360	1713	San Francisco, CA PMSA
5945	1572	Orange County, CA PMSA
5775	1529	Oakland, CA PMSA
7400	1494	San Jose, CA PMSA
6160	1480	Philadelphia, PA--NJ PMSA
1120	1443	Boston, MA--NH PMSA
7320	1370	San Diego, CA MSA
3360	1257	Houston, TX PMSA
3320	1188	Honolulu, HI MSA
6780	1186	Riverside--San Bernardino, CA PMSA
520	1159	Atlanta, GA MSA
2160	995	Detroit, MI PMSA
5640	976	Newark, NJ PMSA
1920	926	Dallas, TX PMSA
6200	889	Phoenix--Mesa, AZ MSA
5380	842	Nassau--Suffolk, NY PMSA
7600	836	Seattle--Bellevue--Everett, WA PMSA
720	806	Baltimore, MD PMSA
875	771	Bergen--Passaic, NJ PMSA
2680	716	Fort Lauderdale, FL PMSA
6920	703	Sacramento, CA PMSA
8280	644	Tampa--St. Petersburg--Clearwater, FL MSA
3640	608	Jersey City, NJ PMSA
2840	599	Fresno, CA MSA
6440	520	Portland--Vancouver, OR--WA PMSA
4120	519	Las Vegas, NV--AZ MSA
7240	516	San Antonio, TX MSA
1680	512	Cleveland--Lorain--Elyria, OH PMSA
2080	508	Denver, CO PMSA
5960	494	Orlando, FL MSA
5015	475	Middlesex--Somerset--Hunterdon, NJ PMSA
5720	470	Norfolk--Virginia Beach--Newport News, VA--NC MSA
8960	458	West Palm Beach--Boca Raton, FL MSA
7040	457	St. Louis, MO--IL MSA
6480	432	Providence--Fall River--Warwick, RI--MA MSA
5120	428	Minneapolis--St. Paul, MN--WI MSA
2800	393	Fort Worth--Arlington, TX PMSA
8120	379	Stockton--Lodi, CA MSA
8735	363	Ventura, CA PMSA

City ID	Count of "2-City" Agent classes	Census Bureau Metropolitan Area Name
8780	350	Visalia--Tulare--Porterville, CA MSA
680	345	Bakersfield, CA MSA
3760	338	Kansas City, MO--KS MSA
5560	338	New Orleans, LA MSA
8520	333	Tucson, AZ MSA
200	325	Albuquerque, NM MSA
4880	317	McAllen--Edinburg--Mission, TX MSA
2320	309	El Paso, TX MSA
6640	307	Raleigh--Durham--Chapel Hill, NC MSA
1520	298	Charlotte--Gastonia--Rock Hill, NC--SC MSA
1840	298	Columbus, OH MSA
3600	298	Jacksonville, FL MSA
3120	295	Greensboro--Winston-Salem--High Point, NC MSA
8200	293	Tacoma, WA PMSA
640	289	Austin--San Marcos, TX MSA
6280	285	Pittsburgh, PA MSA
1280	283	Buffalo--Niagara Falls, NY MSA
5190	274	Monmouth--Ocean, NJ PMSA
5360	272	Nashville, TN MSA
3280	259	Hartford, CT MSA
3480	258	Indianapolis, IN MSA
7160	257	Salt Lake City--Ogden, UT MSA
8720	253	Vallejo--Fairfield--Napa, CA PMSA
1640	236	Cincinnati, OH--KY--IN PMSA
6760	225	Richmond--Petersburg, VA MSA
5170	224	Modesto, CA MSA
6840	220	Rochester, NY MSA
5080	219	Milwaukee--Waukesha, WI PMSA
7480	219	Santa Barbara--Santa Maria--Lompoc, CA MSA
7120	204	Salinas, CA MSA
1240	202	Brownsville--Harlingen--San Benito, TX MSA
4920	199	Memphis, TN--AR--MS MSA
5880	190	Oklahoma City, OK MSA
7500	186	Santa Rosa, CA PMSA
8160	172	Syracuse, NY MSA
8560	167	Tulsa, OK MSA
1160	166	Bridgeport, CT PMSA
4520	164	Louisville, KY--IN MSA
3000	161	Grand Rapids--Muskegon--Holland, MI MSA
4940	161	Merced, CA MSA
3160	155	Greenville--Spartanburg--Anderson, SC MSA
8000	155	Springfield, MA MSA
8040	155	Stamford--Norwalk, CT PMSA
160	154	Albany--Schenectady--Troy, NY MSA
560	144	Atlantic--Cape May, NJ PMSA
9260	142	Yakima, WA MSA
4900	141	Melbourne--Titusville--Palm Bay, FL MSA
3980	140	Lakeland--Winter Haven, FL MSA
6080	140	Pensacola, FL MSA

City ID	Count of "2-City" Agent classes	Census Bureau Metropolitan Area Name
1000	138	Birmingham, AL MSA
8480	135	Trenton, NJ PMSA
2000	133	Dayton--Springfield, OH MSA
7510	126	Sarasota--Bradenton, FL MSA
760	124	Baton Rouge, LA MSA
1440	124	Charleston--North Charleston, SC MSA
5160	124	Mobile, AL MSA
7485	122	Santa Cruz--Watsonville, CA PMSA
1760	121	Columbia, SC MSA
3810	121	Killeen--Temple, TX MSA
4000	121	Lancaster, PA MSA
4080	121	Laredo, TX MSA
9160	119	Wilmington--Newark, DE--MD PMSA
600	117	Augusta--Aiken, GA--SC MSA
2700	117	Fort Myers--Cape Coral, FL MSA
4560	117	Lowell, MA--NH PMSA
2960	116	Gary, IN PMSA
240	115	Allentown--Bethlehem--Easton, PA MSA
380	115	Anchorage, AK MSA
1720	115	Colorado Springs, CO MSA
2560	113	Fayetteville, NC MSA
2020	112	Daytona Beach, FL MSA
5480	112	New Haven--Meriden, CT PMSA
5660	111	Newburgh, NY--PA PMSA
9340	111	Yuba City, CA MSA
4160	110	Lawrence, MA--NH PMSA
9240	109	Worcester, MA--CT PMSA
3560	108	Jackson, MS MSA
6720	108	Reno, NV MSA
3240	107	Harrisburg--Lebanon--Carlisle, PA MSA
9360	107	Yuma, AZ MSA
9040	105	Wichita, KS MSA
7680	104	Shreveport--Bossier City, LA MSA
8400	102	Toledo, OH MSA
9320	101	Youngstown--Warren, OH MSA
2620	99	Flagstaff, AZ--UT MSA
2710	99	Fort Pierce--Port St. Lucie, FL MSA
4680	99	Macon, GA MSA
5400	99	New Bedford, MA PMSA
8680	99	Utica--Rome, NY MSA
5345	97	Naples, FL MSA
5920	97	Omaha, NE--IA MSA
7080	97	Salem, OR PMSA
1880	95	Corpus Christi, TX MSA
7560	95	Scranton--Wilkes-Barre--Hazleton, PA MSA
8240	94	Tallahassee, FL MSA
840	92	Beaumont--Port Arthur, TX MSA
2760	92	Fort Wayne, IN MSA
4040	92	Lansing--East Lansing, MI MSA

City ID	Count of "2-City" Agent classes	Census Bureau Metropolitan Area Name
3440	91	Huntsville, AL MSA
7840	91	Spokane, WA MSA
1200	90	Brockton, MA PMSA
9270	85	Yolo, CA PMSA
4400	84	Little Rock--North Little Rock, AR MSA
920	83	Biloxi--Gulfport--Pascagoula, MS MSA
3840	83	Knoxville, TN MSA
1930	82	Danbury, CT PMSA
1620	81	Chico--Paradise, CA MSA
2400	81	Eugene--Springfield, OR MSA
3290	79	Hickory--Morganton--Lenoir, NC MSA
80	77	Akron, OH PMSA
440	77	Ann Arbor, MI PMSA
2580	76	Fayetteville--Springdale--Rogers, AR MSA
3720	76	Kalamazoo--Battle Creek, MI MSA
4100	74	Las Cruces, NM MSA
5790	74	Ocala, FL MSA
1080	73	Boise City, ID MSA
3605	73	Jacksonville, NC MSA
6680	73	Reading, PA MSA
1560	72	Chattanooga, TN--GA MSA
6740	72	Richland--Kennewick--Pasco, WA MSA
1150	70	Bremerton, WA PMSA
2920	69	Galveston--Texas City, TX PMSA
4600	69	Lubbock, TX MSA
5240	69	Montgomery, AL MSA
860	68	Bellingham, WA MSA
1800	67	Columbus, GA--AL MSA
4720	67	Madison, WI MSA
6520	67	Provo--Orem, UT MSA
320	66	Amarillo, TX MSA
960	66	Binghamton, NY MSA
1145	66	Brazoria, TX PMSA
7490	64	Santa Fe, NM MSA
2750	62	Fort Walton Beach, FL MSA
2900	62	Gainesville, FL MSA
6880	62	Rockford, IL MSA
7460	61	San Luis Obispo--Atascadero--Paso Robles, CA MSA
2281	58	Dutchess County, NY PMSA
5910	58	Olympia, WA PMSA
6690	58	Redding, CA MSA
6960	58	Saginaw--Bay City--Midland, MI MSA
7520	58	Savannah, GA MSA
480	56	Asheville, NC MSA
3880	56	Lafayette, LA MSA
8880	55	Waterbury, CT PMSA
1125	54	Boulder--Longmont, CO PMSA
1660	53	Clarksville--Hopkinsville, TN--KY MSA
1960	53	Davenport--Moline--Rock Island, IA--IL MSA

City ID	Count of "2-City" Agent classes	Census Bureau Metropolitan Area Name
2120	53	Des Moines, IA MSA
2190	53	Dover, DE MSA
460	52	Appleton--Oshkosh--Neenah, WI MSA
5800	52	Odessa--Midland, TX MSA
9280	52	York, PA MSA
3060	50	Greeley, CO PMSA
2640	49	Flint, MI PMSA
5330	49	Myrtle Beach, SC MSA
6120	49	Peoria--Pekin, IL MSA
7800	49	South Bend, IN MSA
220	48	Alexandria, LA MSA
7920	48	Springfield, MO MSA
8800	48	Waco, TX MSA
2180	47	Dothan, AL MSA
3150	47	Greenville, NC MSA
2670	46	Fort Collins--Loveland, CO MSA
4640	46	Lynchburg, VA MSA
8760	46	Vineland--Millville--Bridgeton, NJ PMSA
40	45	Abilene, TX MSA
1320	45	Canton--Massillon, OH MSA
3350	45	Houma, LA MSA
3680	44	Johnstown, PA MSA
4890	44	Medford--Ashland, OR MSA
6015	44	Panama City, FL MSA
2330	43	Elkhart--Goshen, IN MSA
2600	43	Fitchburg--Leominster, MA PMSA
870	42	Benton Harbor, MI MSA
2360	42	Erie, PA MSA
3610	42	Jamestown, NY MSA
8640	42	Tyler, TX MSA
6895	41	Rocky Mount, NC MSA
2720	39	Fort Smith, AR--OK MSA
9200	39	Wilmington, NC MSA
500	38	Athens, GA MSA
2980	38	Goldsboro, NC MSA
6800	38	Roanoke, VA MSA
8140	38	Sumter, SC MSA
2030	37	Decatur, AL MSA
2975	37	Glens Falls, NY MSA
3660	37	Johnson City--Kingsport--Bristol, TN--VA MSA
120	36	Albany, GA MSA
740	36	Barnstable--Yarmouth, MA MSA
1260	35	Bryan--College Station, TX MSA
4280	35	Lexington, KY MSA
4420	35	Longview--Marshall, TX MSA
1540	34	Charlottesville, VA MSA
3200	34	Hamilton--Middletown, OH PMSA
3920	34	Lafayette, IN MSA
3080	33	Green Bay, WI MSA

City ID	Count of "2-City" Agent classes	Census Bureau Metropolitan Area Name
6560	31	Pueblo, CO MSA
9080	31	Wichita Falls, TX MSA
1400	30	Champaign--Urbana, IL MSA
2240	30	Duluth--Superior, MN--WI MSA
3740	30	Kankakee, IL PMSA
4360	29	Lincoln, NE MSA
5200	29	Monroe, LA MSA
6580	29	Punta Gorda, FL MSA
8600	29	Tuscaloosa, AL MSA
3180	28	Hagerstown, MD PMSA
3710	28	Joplin, MO MSA
3960	28	Lake Charles, LA MSA
1950	27	Danville, VA MSA
6400	26	Portland, ME MSA
4760	25	Manchester, NH PMSA
2290	24	Eau Claire, WI MSA
3580	24	Jackson, TN MSA
7620	24	Sheboygan, WI MSA
8320	24	Terre Haute, IN MSA
8940	24	Wausau, WI MSA
3520	23	Jackson, MI MSA
4320	23	Lima, OH MSA
7610	23	Sharon, PA MSA
7880	23	Springfield, IL MSA
880	22	Billings, MT MSA
2995	22	Grand Junction, CO MSA
9140	22	Williamsport, PA MSA
2650	21	Florence, AL MSA
2880	21	Gadsden, AL MSA
3800	21	Kenosha, WI PMSA
4800	21	Mansfield, OH MSA
7720	21	Sioux City, IA--NE MSA
580	20	Auburn--Opelika, AL MSA
1040	20	Bloomington--Normal, IL MSA
1740	20	Columbia, MO MSA
6820	20	Rochester, MN MSA
6980	20	St. Cloud, MN MSA
8920	20	Waterloo--Cedar Falls, IA MSA
450	19	Anniston, AL MSA
2440	19	Evansville--Henderson, IN--KY MSA
5350	19	Nashua, NH PMSA
7000	19	St. Joseph, MO MSA
280	18	Altoona, PA MSA
1020	18	Bloomington, IN MSA
1360	18	Cedar Rapids, IA MSA
8050	18	State College, PA MSA
3285	17	Hattiesburg, MS MSA
6600	17	Racine, WI PMSA
8440	16	Topeka, KS MSA

City ID	Count of "2-City" Agent classes	Census Bureau Metropolitan Area Name
3500	15	Iowa City, IA MSA
3620	15	Janesville--Beloit, WI MSA
3850	14	Kokomo, IN MSA
2040	12	Decatur, IL MSA
2520	12	Fargo--Moorhead, ND--MN MSA
3870	11	La Crosse, WI--MN MSA
5280	10	Muncie, IN MSA
7760	9	Sioux Falls, SD MSA

Appendix D. Percent of City Population Comprised by Common Agent-classes (95-100%).

Table 15. Percent of City Population Comprised by Agent-classes Found in 95-100% of U.S. Cities.

City	pctCityPop	NumAgentClasses
Abilene, TX MSA	14.27	158
Akron, OH PMSA	17.89	162
Albany, GA MSA	9.82	139
Albany--Schenectady--Troy, NY MSA	15.99	162
Albuquerque, NM MSA	7.67	162
Alexandria, LA MSA	14.64	150
Allentown--Bethlehem--Easton, PA MSA	16.25	162
Altoona, PA MSA	25.75	160
Amarillo, TX MSA	14.93	162
Anchorage, AK MSA	6.28	137
Ann Arbor, MI PMSA	10.56	162
Anniston, AL MSA	16.53	151
Appleton--Oshkosh--Neenah, WI MSA	19.12	162
Asheville, NC MSA	16.30	161
Athens, GA MSA	9.61	161
Atlanta, GA MSA	8.78	162
Atlantic--Cape May, NJ PMSA	12.63	162
Auburn--Opelika, AL MSA	9.23	132
Augusta--Aiken, GA--SC MSA	11.79	162
Austin--San Marcos, TX MSA	6.74	162
Bakersfield, CA MSA	9.33	162
Baltimore, MD PMSA	9.71	162
Barnstable--Yarmouth, MA MSA	18.17	155
Baton Rouge, LA MSA	12.24	162
Beaumont--Port Arthur, TX MSA	14.92	162
Bellingham, WA MSA	13.51	159
Benton Harbor, MI MSA	18.25	161
Bergen--Passaic, NJ PMSA	9.09	162
Billings, MT MSA	17.34	152
Biloxi--Gulfport--Pascagoula, MS MSA	14.25	162
Binghamton, NY MSA	19.88	162
Birmingham, AL MSA	12.00	162
Bloomington, IN MSA	11.14	145
Bloomington--Normal, IL MSA	13.87	160
Boise City, ID MSA	14.45	162
Boston, MA--NH PMSA	10.53	162
Boulder--Longmont, CO PMSA	7.98	150
Brazoria, TX PMSA	12.92	161
Bremerton, WA PMSA	12.94	157
Bridgeport, CT PMSA	9.85	160
Brockton, MA PMSA	14.74	160

City	pctCityPop	NumAgentClasses
Brownsville--Harlingen--San Benito, TX MSA	3.69	130
Bryan--College Station, TX MSA	6.91	134
Buffalo--Niagara Falls, NY MSA	17.45	162
Canton--Massillon, OH MSA	21.76	162
Cedar Rapids, IA MSA	18.67	158
Champaign--Urbana, IL MSA	11.54	161
Charleston--North Charleston, SC MSA	9.76	162
Charlotte--Gastonia--Rock Hill, NC--SC MSA	12.24	162
Charlottesville, VA MSA	9.56	155
Chattanooga, TN--GA MSA	16.85	162
Chicago, IL PMSA	9.04	162
Chico--Paradise, CA MSA	14.65	160
Cincinnati, OH--KY--IN PMSA	15.39	162
Clarksville--Hopkinsville, TN--KY MSA	11.87	155
Cleveland--Lorain--Elyria, OH PMSA	15.81	162
Colorado Springs, CO MSA	11.67	162
Columbia, MO MSA	10.64	148
Columbia, SC MSA	10.35	162
Columbus, GA--AL MSA	9.77	154
Columbus, OH MSA	13.26	162
Corpus Christi, TX MSA	8.72	157
Dallas, TX PMSA	8.13	162
Danbury, CT PMSA	10.71	154
Danville, VA MSA	15.87	155
Davenport--Moline--Rock Island, IA--IL MSA	18.56	161
Daytona Beach, FL MSA	17.77	162
Dayton--Springfield, OH MSA	16.23	162
Decatur, AL MSA	17.09	162
Decatur, IL MSA	20.83	159
Denver, CO PMSA	10.03	162
Des Moines, IA MSA	14.61	159
Detroit, MI PMSA	13.51	162
Dothan, AL MSA	15.44	159
Dover, DE MSA	14.43	155
Duluth--Superior, MN--WI MSA	23.11	161
Dutchess County, NY PMSA	13.99	161
Eau Claire, WI MSA	18.58	160
El Paso, TX MSA	3.50	152
Elkhart--Goshen, IN MSA	16.78	161
Erie, PA MSA	19.34	162
Eugene--Springfield, OR MSA	14.46	162
Evansville--Henderson, IN--KY MSA	20.41	162
Fargo--Moorhead, ND--MN MSA	16.19	148
Fayetteville, NC MSA	9.00	160
Fayetteville--Springdale--Rogers, AR MSA	15.38	161
Fitchburg--Leominster, MA PMSA	16.40	156
Flagstaff, AZ--UT MSA	7.44	138

City	pctCityPop	NumAgentClasses
Flint, MI PMSA	13.15	159
Florence, AL MSA	18.15	160
Fort Collins--Loveland, CO MSA	10.60	159
Fort Lauderdale, FL PMSA	10.58	162
Fort Myers--Cape Coral, FL MSA	16.47	162
Fort Pierce--Port St. Lucie, FL MSA	16.89	162
Fort Smith, AR--OK MSA	17.41	157
Fort Walton Beach, FL MSA	14.27	158
Fort Wayne, IN MSA	18.74	162
Fort Worth--Arlington, TX PMSA	11.44	162
Fresno, CA MSA	7.94	162
Gadsden, AL MSA	18.98	154
Gainesville, FL MSA	8.34	159
Galveston--Texas City, TX PMSA	11.39	162
Gary, IN PMSA	15.50	162
Glens Falls, NY MSA	19.19	162
Goldsboro, NC MSA	12.03	153
Grand Junction, CO MSA	16.25	152
Grand Rapids--Muskegon--Holland, MI MSA	16.79	162
Greeley, CO PMSA	12.30	159
Green Bay, WI MSA	18.47	161
Greensboro--Winston-Salem--High Point, NC MSA	14.35	162
Greenville, NC MSA	9.26	152
Greenville--Spartanburg--Anderson, SC MSA	14.54	162
Hagerstown, MD PMSA	20.10	161
Hamilton--Middletown, OH PMSA	16.48	162
Harrisburg--Lebanon--Carlisle, PA MSA	17.36	162
Hartford, CT MSA	11.33	162
Hattiesburg, MS MSA	13.18	141
Hickory--Morganton--Lenoir, NC MSA	16.86	162
Honolulu, HI MSA	1.72	151
Houma, LA MSA	14.62	144
Houston, TX PMSA	7.45	162
Huntsville, AL MSA	12.99	162
Indianapolis, IN MSA	14.58	162
Iowa City, IA MSA	8.56	130
Jackson, MI MSA	18.93	161
Jackson, MS MSA	8.96	161
Jackson, TN MSA	14.66	153
Jacksonville, FL MSA	12.29	162
Jacksonville, NC MSA	10.19	153
Jamestown, NY MSA	20.31	162
Janesville--Beloit, WI MSA	18.67	161
Jersey City, NJ PMSA	3.07	136
Johnson City--Kingsport--Bristol, TN--VA MSA	19.55	162
Johnstown, PA MSA	25.42	162
Joplin, MO MSA	19.62	160

City	pctCityPop	NumAgentClasses
Kalamazoo--Battle Creek, MI MSA	16.07	162
Kankakee, IL PMSA	16.62	160
Kansas City, MO--KS MSA	14.45	162
Kenosha, WI PMSA	17.05	159
Killeen--Temple, TX MSA	10.08	162
Knoxville, TN MSA	16.57	162
Kokomo, IN MSA	20.67	157
La Crosse, WI--MN MSA	19.72	157
Lafayette, IN MSA	14.02	162
Lafayette, LA MSA	12.52	159
Lake Charles, LA MSA	14.24	157
Lakeland--Winter Haven, FL MSA	16.18	162
Lancaster, PA MSA	16.52	162
Lansing--East Lansing, MI MSA	15.34	162
Laredo, TX MSA	0.47	26
Las Cruces, NM MSA	5.28	128
Las Vegas, NV--AZ MSA	8.69	162
Lawrence, MA--NH PMSA	11.81	161
Lexington, KY MSA	10.83	159
Lima, OH MSA	20.95	161
Lincoln, NE MSA	14.52	160
Little Rock--North Little Rock, AR MSA	13.57	162
Longview--Marshall, TX MSA	14.19	159
Los Angeles--Long Beach, CA PMSA	4.32	162
Louisville, KY--IN MSA	16.60	162
Lowell, MA--NH PMSA	13.72	162
Lubbock, TX MSA	10.79	161
Lynchburg, VA MSA	16.19	162
Macon, GA MSA	12.02	162
Madison, WI MSA	12.01	161
Manchester, NH PMSA	12.57	132
Mansfield, OH MSA	19.89	157
McAllen--Edinburg--Mission, TX MSA	2.80	118
Medford--Ashland, OR MSA	15.18	160
Melbourne--Titusville--Palm Bay, FL MSA	16.97	162
Memphis, TN--AR--MS MSA	8.99	162
Merced, CA MSA	8.41	155
Miami, FL PMSA	2.78	162
Middlesex--Somerset--Hunterdon, NJ PMSA	10.10	162
Milwaukee--Waukesha, WI PMSA	13.74	162
Minneapolis--St. Paul, MN--WI MSA	14.89	162
Mobile, AL MSA	13.35	162
Modesto, CA MSA	10.54	162
Monmouth--Ocean, NJ PMSA	14.41	162
Monroe, LA MSA	12.78	155
Montgomery, AL MSA	11.06	161
Muncie, IN MSA	17.40	154

City	pctCityPop	NumAgentClasses
Myrtle Beach, SC MSA	14.72	159
Naples, FL MSA	13.06	161
Nashua, NH PMSA	14.21	138
Nashville, TN MSA	12.67	162
Nassau--Suffolk, NY PMSA	12.20	162
New Bedford, MA PMSA	13.68	160
New Haven--Meriden, CT PMSA	11.85	162
New Orleans, LA MSA	11.11	162
New York, NY PMSA	3.87	162
Newark, NJ PMSA	8.22	162
Newburgh, NY--PA PMSA	12.95	162
Norfolk--Virginia Beach--Newport News, VA--NC MSA	10.37	162
Oakland, CA PMSA	6.12	162
Ocala, FL MSA	17.79	162
Odessa--Midland, TX MSA	12.12	159
Oklahoma City, OK MSA	13.13	162
Olympia, WA PMSA	13.27	161
Omaha, NE--IA MSA	14.01	162
Orange County, CA PMSA	6.97	162
Orlando, FL MSA	11.44	162
Panama City, FL MSA	15.66	161
Pensacola, FL MSA	13.77	162
Peoria--Pekin, IL MSA	20.64	162
Philadelphia, PA--NJ PMSA	10.20	162
Phoenix--Mesa, AZ MSA	10.52	162
Pittsburgh, PA MSA	21.26	162
Portland, ME MSA	15.00	156
Portland--Vancouver, OR--WA PMSA	12.11	162
Providence--Fall River--Warwick, RI--MA MSA	14.47	162
Provo--Orem, UT MSA	12.83	160
Pueblo, CO MSA	12.71	144
Punta Gorda, FL MSA	21.74	156
Racine, WI PMSA	17.36	160
Raleigh--Durham--Chapel Hill, NC MSA	8.89	162
Reading, PA MSA	15.54	162
Redding, CA MSA	16.84	161
Reno, NV MSA	9.95	160
Richland--Kennewick--Pasco, WA MSA	13.26	158
Richmond--Petersburg, VA MSA	11.35	162
Riverside--San Bernardino, CA PMSA	8.62	162
Roanoke, VA MSA	17.52	161
Rochester, MN MSA	16.56	157
Rochester, NY MSA	15.82	162
Rockford, IL MSA	16.43	162
Rocky Mount, NC MSA	11.15	160
Sacramento, CA PMSA	10.01	162
Saginaw--Bay City--Midland, MI MSA	20.26	162

City	pctCityPop	NumAgentClasses
Salem, OR PMSA	13.41	162
Salinas, CA MSA	5.83	152
Salt Lake City--Ogden, UT MSA	14.45	162
San Antonio, TX MSA	7.05	162
San Diego, CA MSA	7.65	162
San Francisco, CA PMSA	4.38	161
San Jose, CA PMSA	5.15	162
San Luis Obispo--Atascadero--Paso Robles, CA MSA	11.44	160
Santa Barbara--Santa Maria--Lompoc, CA MSA	7.50	161
Santa Cruz--Watsonville, CA PMSA	7.18	153
Santa Fe, NM MSA	5.62	125
Santa Rosa, CA PMSA	10.77	162
Sarasota--Bradenton, FL MSA	16.76	162
Savannah, GA MSA	9.07	156
Scranton--Wilkes-Barre--Hazleton, PA MSA	21.10	162
Seattle--Bellevue--Everett, WA PMSA	10.25	162
Sharon, PA MSA	23.68	161
Sheboygan, WI MSA	20.01	156
Shreveport--Bossier City, LA MSA	12.89	162
Sioux City, IA--NE MSA	18.81	157
Sioux Falls, SD MSA	17.12	139
South Bend, IN MSA	16.72	162
Spokane, WA MSA	16.58	162
Springfield, IL MSA	15.03	150
Springfield, MA MSA	14.51	162
Springfield, MO MSA	16.43	162
St. Cloud, MN MSA	19.83	161
St. Joseph, MO MSA	21.11	153
St. Louis, MO--IL MSA	15.83	162
Stamford--Norwalk, CT PMSA	7.18	153
State College, PA MSA	13.41	159
Stockton--Lodi, CA MSA	8.67	162
Sumter, SC MSA	9.84	135
Syracuse, NY MSA	17.73	162
Tacoma, WA PMSA	12.35	162
Tallahassee, FL MSA	7.89	159
Tampa--St. Petersburg--Clearwater, FL MSA	15.37	162
Terre Haute, IN MSA	20.21	161
Toledo, OH MSA	16.73	162
Topeka, KS MSA	17.05	157
Trenton, NJ PMSA	8.48	156
Tucson, AZ MSA	9.91	162
Tulsa, OK MSA	14.68	162
Tuscaloosa, AL MSA	11.44	151
Tyler, TX MSA	13.58	159
Utica--Rome, NY MSA	20.25	162
Vallejo--Fairfield--Napa, CA PMSA	8.69	161

City	pctCityPop	NumAgentClasses
Ventura, CA PMSA	8.10	162
Vineland--Millville--Bridgeton, NJ PMSA	12.92	152
Visalia--Tulare--Porterville, CA MSA	8.56	162
Waco, TX MSA	12.95	161
Washington, DC--MD--VA--WV PMSA	5.95	162
Waterbury, CT PMSA	12.02	141
Waterloo--Cedar Falls, IA MSA	18.17	156
Wausau, WI MSA	20.85	161
West Palm Beach--Boca Raton, FL MSA	11.82	162
Wichita Falls, TX MSA	14.55	155
Wichita, KS MSA	15.33	162
Williamsport, PA MSA	21.88	161
Wilmington, NC MSA	12.87	161
Wilmington--Newark, DE--MD PMSA	12.59	162
Worcester, MA--CT PMSA	13.79	160
Yakima, WA MSA	11.78	161
Yolo, CA PMSA	7.23	146
York, PA MSA	18.45	162
Youngstown--Warren, OH MSA	20.84	162
Yuba City, CA MSA	12.21	161
Yuma, AZ MSA	9.88	144

Appendix E. Percent of City Population Comprised of Common Agent-classes (90-95%).

Table 16. Percent of City Population Comprised of Agent-classes Found in 90-95% of U.S. Cities.

City	pctCityPop	NumAgentClasses
Abilene, TX MSA	8.67	128
Akron, OH PMSA	9.48	162
Albany, GA MSA	4.61	108
Albany--Schenectady--Troy, NY MSA	8.68	162
Albuquerque, NM MSA	4.72	160
Alexandria, LA MSA	6.36	131
Allentown--Bethlehem--Easton, PA MSA	8.10	161
Altoona, PA MSA	9.36	148
Amarillo, TX MSA	7.94	157
Anchorage, AK MSA	4.77	116
Ann Arbor, MI PMSA	9.10	159
Anniston, AL MSA	7.08	129
Appleton--Oshkosh--Neenah, WI MSA	10.77	162
Asheville, NC MSA	8.23	161
Athens, GA MSA	7.24	143
Atlanta, GA MSA	5.43	162
Atlantic--Cape May, NJ PMSA	6.94	158
Auburn--Opelika, AL MSA	8.73	106
Augusta--Aiken, GA--SC MSA	6.12	162
Austin--San Marcos, TX MSA	6.24	162
Bakersfield, CA MSA	4.92	162
Baltimore, MD PMSA	5.71	162
Barnstable--Yarmouth, MA MSA	8.64	148
Baton Rouge, LA MSA	6.59	162
Beaumont--Port Arthur, TX MSA	6.30	159
Bellingham, WA MSA	8.75	150
Benton Harbor, MI MSA	7.81	153
Bergen--Passaic, NJ PMSA	5.01	161
Billings, MT MSA	8.73	133
Biloxi--Gulfport--Pascagoula, MS MSA	6.66	155
Binghamton, NY MSA	9.40	160
Birmingham, AL MSA	6.41	162
Bloomington, IN MSA	14.22	119
Bloomington--Normal, IL MSA	11.34	157
Boise City, ID MSA	9.11	161
Boston, MA--NH PMSA	6.50	162
Boulder--Longmont, CO PMSA	7.52	145
Brazoria, TX PMSA	6.45	153
Bremerton, WA PMSA	7.86	153
Bridgeport, CT PMSA	5.50	147
Brockton, MA PMSA	9.25	156
Brownsville--Harlingen--San Benito, TX MSA	1.39	94

City	pctCityPop	NumAgentClasses
Bryan--College Station, TX MSA	8.38	106
Buffalo--Niagara Falls, NY MSA	8.14	162
Canton--Massillon, OH MSA	9.75	162
Cedar Rapids, IA MSA	10.84	156
Champaign--Urbana, IL MSA	11.02	155
Charleston--North Charleston, SC MSA	6.78	161
Charlotte--Gastonia--Rock Hill, NC--SC MSA	6.92	162
Charlottesville, VA MSA	8.01	140
Chattanooga, TN--GA MSA	7.63	161
Chicago, IL PMSA	5.14	162
Chico--Paradise, CA MSA	7.72	157
Cincinnati, OH--KY--IN PMSA	8.25	162
Clarksville--Hopkinsville, TN--KY MSA	7.02	138
Cleveland--Lorain--Elyria, OH PMSA	7.80	162
Colorado Springs, CO MSA	7.38	162
Columbia, MO MSA	10.54	126
Columbia, SC MSA	6.57	162
Columbus, GA--AL MSA	4.58	131
Columbus, OH MSA	8.64	162
Corpus Christi, TX MSA	4.95	146
Dallas, TX PMSA	5.66	162
Danbury, CT PMSA	6.29	135
Danville, VA MSA	6.60	129
Davenport--Moline--Rock Island, IA--IL MSA	9.93	157
Daytona Beach, FL MSA	8.02	161
Dayton--Springfield, OH MSA	8.90	162
Decatur, AL MSA	7.07	150
Decatur, IL MSA	9.70	153
Denver, CO PMSA	6.40	162
Des Moines, IA MSA	9.95	162
Detroit, MI PMSA	6.86	162
Dothan, AL MSA	6.43	142
Dover, DE MSA	7.22	144
Duluth--Superior, MN--WI MSA	9.50	158
Dutchess County, NY PMSA	8.18	153
Eau Claire, WI MSA	10.82	153
El Paso, TX MSA	1.61	136
Elkhart--Goshen, IN MSA	8.40	158
Erie, PA MSA	10.42	160
Eugene--Springfield, OR MSA	8.11	158
Evansville--Henderson, IN--KY MSA	9.96	159
Fargo--Moorhead, ND--MN MSA	11.40	127
Fayetteville, NC MSA	4.84	140
Fayetteville--Springdale--Rogers, AR MSA	8.16	162
Fitchburg--Leominster, MA PMSA	7.48	139
Flagstaff, AZ--UT MSA	6.37	130
Flint, MI PMSA	6.34	136

City	pctCityPop	NumAgentClasses
Florence, AL MSA	8.27	149
Fort Collins--Loveland, CO MSA	9.23	158
Fort Lauderdale, FL PMSA	5.36	162
Fort Myers--Cape Coral, FL MSA	7.95	161
Fort Pierce--Port St. Lucie, FL MSA	7.04	158
Fort Smith, AR--OK MSA	7.05	146
Fort Walton Beach, FL MSA	7.81	154
Fort Wayne, IN MSA	9.23	162
Fort Worth--Arlington, TX PMSA	6.79	162
Fresno, CA MSA	4.02	162
Gadsden, AL MSA	8.04	124
Gainesville, FL MSA	7.96	155
Galveston--Texas City, TX PMSA	6.47	155
Gary, IN PMSA	7.48	162
Glens Falls, NY MSA	9.32	152
Goldsboro, NC MSA	6.56	122
Grand Junction, CO MSA	8.22	138
Grand Rapids--Muskegon--Holland, MI MSA	9.22	162
Greeley, CO PMSA	8.24	157
Green Bay, WI MSA	10.36	154
Greensboro--Winston-Salem--High Point, NC MSA	7.40	162
Greenville, NC MSA	7.66	139
Greenville--Spartanburg--Anderson, SC MSA	7.74	162
Hagerstown, MD PMSA	8.86	147
Hamilton--Middletown, OH PMSA	11.04	161
Harrisburg--Lebanon--Carlisle, PA MSA	9.15	162
Hartford, CT MSA	6.27	160
Hattiesburg, MS MSA	7.16	122
Hickory--Morganton--Lenoir, NC MSA	7.90	161
Honolulu, HI MSA	1.35	124
Houma, LA MSA	6.41	113
Houston, TX PMSA	4.59	162
Huntsville, AL MSA	7.11	161
Indianapolis, IN MSA	8.27	162
Iowa City, IA MSA	11.20	120
Jackson, MI MSA	8.74	150
Jackson, MS MSA	5.48	156
Jackson, TN MSA	7.12	116
Jacksonville, FL MSA	7.24	162
Jacksonville, NC MSA	8.13	123
Jamestown, NY MSA	9.60	155
Janesville--Beloit, WI MSA	9.62	144
Jersey City, NJ PMSA	1.66	119
Johnson City--Kingsport--Bristol, TN--VA MSA	8.92	159
Johnstown, PA MSA	8.79	158
Joplin, MO MSA	8.92	153
Kalamazoo--Battle Creek, MI MSA	8.79	162

City	pctCityPop	NumAgentClasses
Kankakee, IL PMSA	8.33	139
Kansas City, MO--KS MSA	8.35	162
Kenosha, WI PMSA	8.78	139
Killeen--Temple, TX MSA	5.98	155
Knoxville, TN MSA	8.85	162
Kokomo, IN MSA	7.72	128
La Crosse, WI--MN MSA	11.91	136
Lafayette, IN MSA	12.14	149
Lafayette, LA MSA	6.55	153
Lake Charles, LA MSA	7.15	146
Lakeland--Winter Haven, FL MSA	7.37	162
Lancaster, PA MSA	8.29	160
Lansing--East Lansing, MI MSA	10.53	162
Laredo, TX MSA	0.23	10
Las Cruces, NM MSA	3.05	88
Las Vegas, NV--AZ MSA	6.25	162
Lawrence, MA--NH PMSA	6.44	149
Lexington, KY MSA	8.47	149
Lima, OH MSA	9.36	154
Lincoln, NE MSA	11.28	154
Little Rock--North Little Rock, AR MSA	7.91	162
Longview--Marshall, TX MSA	7.18	147
Los Angeles--Long Beach, CA PMSA	2.57	162
Louisville, KY--IN MSA	7.90	162
Lowell, MA--NH PMSA	8.38	156
Lubbock, TX MSA	7.94	156
Lynchburg, VA MSA	8.86	154
Macon, GA MSA	6.18	161
Madison, WI MSA	9.44	159
Manchester, NH PMSA	8.66	114
Mansfield, OH MSA	8.84	142
McAllen--Edinburg--Mission, TX MSA	1.10	86
Medford--Ashland, OR MSA	8.19	148
Melbourne--Titusville--Palm Bay, FL MSA	8.15	162
Memphis, TN--AR--MS MSA	5.31	162
Merced, CA MSA	3.79	130
Miami, FL PMSA	1.56	157
Middlesex--Somerset--Hunterdon, NJ PMSA	6.07	162
Milwaukee--Waukesha, WI PMSA	7.78	162
Minneapolis--St. Paul, MN--WI MSA	9.06	162
Mobile, AL MSA	6.76	162
Modesto, CA MSA	5.32	160
Monmouth--Ocean, NJ PMSA	7.99	162
Monroe, LA MSA	5.86	130
Montgomery, AL MSA	5.87	158
Muncie, IN MSA	11.07	136
Myrtle Beach, SC MSA	7.87	150

City	pctCityPop	NumAgentClasses
Naples, FL MSA	6.67	142
Nashua, NH PMSA	8.24	118
Nashville, TN MSA	8.11	162
Nassau--Suffolk, NY PMSA	6.99	162
New Bedford, MA PMSA	7.10	147
New Haven--Meriden, CT PMSA	6.93	155
New Orleans, LA MSA	5.05	162
New York, NY PMSA	2.18	162
Newark, NJ PMSA	4.87	162
Newburgh, NY--PA PMSA	7.30	158
Norfolk--Virginia Beach--Newport News, VA--NC MSA	6.18	162
Oakland, CA PMSA	3.67	162
Ocala, FL MSA	7.14	153
Odessa--Midland, TX MSA	6.51	153
Oklahoma City, OK MSA	7.61	162
Olympia, WA PMSA	8.12	152
Omaha, NE--IA MSA	9.13	161
Orange County, CA PMSA	4.45	162
Orlando, FL MSA	6.64	162
Panama City, FL MSA	7.94	152
Pensacola, FL MSA	7.45	161
Peoria--Pekin, IL MSA	9.61	161
Philadelphia, PA--NJ PMSA	5.77	162
Phoenix--Mesa, AZ MSA	6.83	162
Pittsburgh, PA MSA	8.86	162
Portland, ME MSA	9.19	152
Portland--Vancouver, OR--WA PMSA	7.96	162
Providence--Fall River--Warwick, RI--MA MSA	7.64	162
Provo--Orem, UT MSA	9.26	151
Pueblo, CO MSA	5.10	126
Punta Gorda, FL MSA	8.11	135
Racine, WI PMSA	8.11	132
Raleigh--Durham--Chapel Hill, NC MSA	6.68	162
Reading, PA MSA	8.11	162
Redding, CA MSA	8.50	153
Reno, NV MSA	7.47	160
Richland--Kennewick--Pasco, WA MSA	7.05	150
Richmond--Petersburg, VA MSA	6.43	162
Riverside--San Bernardino, CA PMSA	4.70	162
Roanoke, VA MSA	9.45	160
Rochester, MN MSA	9.59	144
Rochester, NY MSA	8.32	162
Rockford, IL MSA	8.63	160
Rocky Mount, NC MSA	5.96	145
Sacramento, CA PMSA	6.15	162
Saginaw--Bay City--Midland, MI MSA	8.98	162
Salem, OR PMSA	8.47	158

City	pctCityPop	NumAgentClasses
Salinas, CA MSA	3.75	134
Salt Lake City--Ogden, UT MSA	8.37	162
San Antonio, TX MSA	3.87	162
San Diego, CA MSA	4.99	162
San Francisco, CA PMSA	2.81	157
San Jose, CA PMSA	3.22	158
San Luis Obispo--Atascadero--Paso Robles, CA MSA	7.32	148
Santa Barbara--Santa Maria--Lompoc, CA MSA	5.07	156
Santa Cruz--Watsonville, CA PMSA	5.07	144
Santa Fe, NM MSA	3.45	92
Santa Rosa, CA PMSA	6.41	161
Sarasota--Bradenton, FL MSA	7.63	161
Savannah, GA MSA	5.37	146
Scranton--Wilkes-Barre--Hazleton, PA MSA	9.12	162
Seattle--Bellevue--Everett, WA PMSA	6.80	162
Sharon, PA MSA	9.39	152
Sheboygan, WI MSA	9.96	138
Shreveport--Bossier City, LA MSA	5.84	155
Sioux City, IA--NE MSA	9.33	127
Sioux Falls, SD MSA	9.97	125
South Bend, IN MSA	9.48	159
Spokane, WA MSA	8.82	162
Springfield, IL MSA	8.26	128
Springfield, MA MSA	9.34	161
Springfield, MO MSA	9.90	160
St. Cloud, MN MSA	12.76	155
St. Joseph, MO MSA	8.43	140
St. Louis, MO--IL MSA	7.96	162
Stamford--Norwalk, CT PMSA	4.42	131
State College, PA MSA	12.54	148
Stockton--Lodi, CA MSA	4.95	160
Sumter, SC MSA	4.97	103
Syracuse, NY MSA	9.91	162
Tacoma, WA PMSA	7.80	162
Tallahassee, FL MSA	6.52	149
Tampa--St. Petersburg--Clearwater, FL MSA	7.35	162
Terre Haute, IN MSA	9.80	151
Toledo, OH MSA	9.25	162
Topeka, KS MSA	8.58	146
Trenton, NJ PMSA	5.72	144
Tucson, AZ MSA	6.08	162
Tulsa, OK MSA	7.99	162
Tuscaloosa, AL MSA	7.66	125
Tyler, TX MSA	6.93	147
Utica--Rome, NY MSA	8.73	162
Vallejo--Fairfield--Napa, CA PMSA	5.46	158
Ventura, CA PMSA	4.98	159

City	pctCityPop	NumAgentClasses
Vineland--Millville--Bridgeton, NJ PMSA	5.56	138
Visalia--Tulare--Porterville, CA MSA	4.10	148
Waco, TX MSA	7.61	154
Washington, DC--MD--VA--WV PMSA	4.12	162
Waterbury, CT PMSA	5.25	108
Waterloo--Cedar Falls, IA MSA	11.07	135
Wausau, WI MSA	9.46	149
West Palm Beach--Boca Raton, FL MSA	6.11	162
Wichita Falls, TX MSA	8.06	140
Wichita, KS MSA	8.41	162
Williamsport, PA MSA	8.89	155
Wilmington, NC MSA	7.48	160
Wilmington--Newark, DE--MD PMSA	7.57	161
Worcester, MA--CT PMSA	8.79	159
Yakima, WA MSA	5.53	149
Yolo, CA PMSA	5.77	126
York, PA MSA	9.28	161
Youngstown--Warren, OH MSA	9.05	162
Yuba City, CA MSA	5.95	137
Yuma, AZ MSA	4.75	104

Appendix F. Estimated Incidence of Illiteracy per City.

Table 17. Estimated Incidence of Illiteracy per City by Sociodemographic Category.

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Abilene, TX MSA	6,295	7,006	3,505	5,563	4,816	11,840	8,233	803	52	172	1,233	6,547	262	5,332	13,774	2,078	387	30
Akron, OH PMSA	34,882	39,171	14,928	35,054	28,521	54,372	46,348	5,365	354	995	12,373	2,002	1,019	33,727	66,844	14,790	3,891	262
Albany, GA MSA	6,049	6,383	2,940	5,734	4,241	14,455	6,986	655	48	83	10,566	610	89	3,245	12,439	2,002	526	30
Albany--Schenectady--Troy, NY MSA	40,055	45,273	16,257	41,012	33,593	59,730	50,461	6,206	671	1,598	7,268	5,277	1,351	40,104	74,130	18,150	5,263	284
Albuquerque, NM MSA	34,833	40,206	16,101	36,232	25,302	63,421	42,321	5,366	525	1,196	2,504	91,912	7,351	19,701	70,983	13,238	3,405	268
Alexandria, LA MSA	6,240	7,078	2,937	5,960	5,250	16,132	7,562	584	46	78	7,076	844	259	4,586	14,191	1,770	387	29
Allentown--Bethlehem--Easton, PA MSA	32,491	36,976	12,734	32,537	29,983	61,076	42,286	4,238	325	1,046	2,534	13,650	837	32,385	63,683	13,680	3,525	217
Altoona, PA MSA	6,742	7,522	2,750	6,402	6,433	11,744	9,896	593	37	81	196	210	114	7,259	14,893	2,259	429	21
Amarillo, TX MSA	10,611	11,786	5,163	10,060	8,332	21,319	13,251	1,370	101	479	1,844	11,842	407	8,838	22,160	3,718	899	61
Anchorage, AK MSA	11,839	14,690	6,452	14,040	4,816	16,862	16,325	2,105	162	1,278	2,633	4,520	3,471	10,015	20,457	5,784	2,155	147
Ann Arbor, MI PMSA	23,466	27,903	12,700	25,296	12,724	25,425	27,793	5,299	565	2,241	6,380	3,634	1,155	22,612	39,613	10,125	4,298	355
Anniston, AL MSA	5,711	6,306	2,575	5,345	4,987	13,879	7,083	473	45	53	3,720	657	224	4,953	12,461	1,937	352	22
Appleton--Oshkosh--Neenah, WI MSA	17,067	21,100	8,045	18,558	12,676	26,996	25,145	2,532	131	422	384	1,668	469	18,995	32,330	9,487	2,050	99
Asheville, NC MSA	11,731	12,922	4,634	11,203	11,138	20,647	14,174	1,885	144	266	2,442	1,791	293	11,607	24,276	4,238	873	79
Athens, GA MSA	7,919	9,088	5,511	6,737	4,678	13,266	9,670	1,270	128	385	4,828	2,012	188	6,852	17,139	2,623	609	50
Atlanta, GA MSA	192,627	223,248	94,990	213,548	103,601	349,775	218,152	39,640	2,695	13,852	199,202	81,115	7,553	135,093	342,915	87,620	26,714	2,287
Atlantic--Cape May, NJ PMSA	18,104	20,104	6,478	18,276	16,950	36,377	22,641	2,432	157	1,360	8,179	10,339	742	14,885	34,485	7,550	2,093	132
Auburn--Opelika, AL MSA	5,798	6,691	4,409	4,729	3,090	8,832	7,882	749	83	237	4,950	580	183	4,765	12,682	1,930	438	32
Augusta--Aiken, GA--SC MSA	22,177	24,594	10,269	22,180	16,233	47,004	27,103	2,805	211	672	25,499	3,550	732	15,734	45,329	7,833	2,138	143
Austin--San Marcos, TX MSA	55,586	68,454	33,520	58,909	28,508	94,296	62,687	13,222	943	4,533	15,353	94,554	2,479	41,427	104,303	24,974	7,338	700
Bakersfield, CA MSA	29,006	35,289	15,583	29,725	20,149	90,768	33,922	2,522	171	2,149	5,088	72,900	2,372	18,125	64,958	8,980	2,779	172
Baltimore, MD PMSA	126,827	138,921	50,174	131,720	98,723	224,513	143,344	21,530	2,025	7,178	116,828	15,720	4,582	96,509	216,721	58,249	18,537	1,312
Barnstable--Yarmouth, MA MSA	7,655	8,224	1,961	7,118	9,539	7,476	9,637	1,528	130	90	366	507	522	7,827	13,337	3,538	949	74
Baton Rouge, LA MSA	29,576	33,355	15,800	29,232	18,768	56,626	37,287	4,083	309	902	32,237	3,263	794	22,075	60,336	10,567	3,146	188
Beaumont--Port Arthur, TX MSA	18,463	22,015	8,631	18,271	16,078	41,882	25,267	1,837	101	724	15,869	9,281	615	14,290	39,774	6,601	1,780	103
Bellingham, WA MSA	8,351	9,807	4,678	7,991	5,944	11,560	11,735	1,341	89	549	156	2,638	1,368	8,070	17,318	3,284	797	53
Benton Harbor, MI MSA	8,141	9,180	3,358	8,089	7,154	15,010	10,801	940	84	175	3,296	1,625	327	7,572	16,281	3,215	797	57

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Bergen--Passaic, NJ PMSA	69,444	77,870	25,861	72,398	59,667	122,394	75,112	14,321	1,120	11,865	18,264	76,442	3,195	51,937	115,325	29,140	10,829	1,136
Billings, MT MSA	6,312	7,234	2,686	6,666	4,796	8,382	8,461	1,253	57	58	81	1,286	559	6,540	12,932	2,525	546	41
Biloxi--Gulfport--Pascagoula, MS MSA	15,230	18,054	7,483	15,477	11,563	30,411	20,975	1,670	128	753	12,307	2,298	629	12,685	32,858	5,745	1,282	77
Binghamton, NY MSA	12,869	14,428	5,211	12,533	11,872	21,752	17,171	1,505	158	597	997	1,367	396	13,248	26,640	4,758	1,109	76
Birmingham, AL MSA	41,401	43,694	18,258	39,978	31,548	77,406	47,666	6,655	459	772	47,010	4,013	930	29,371	78,542	16,062	4,120	337
Bloomington, IN MSA	6,672	7,248	5,185	5,078	3,328	6,333	8,372	1,205	142	522	699	652	285	6,573	14,133	1,984	563	42
Bloomington--Normal, IL MSA	7,730	8,719	4,230	7,485	4,994	8,777	10,137	1,609	96	294	1,159	1,010	214	7,832	14,104	3,414	1,062	65
Boise City, ID MSA	19,837	24,517	10,500	21,098	13,222	35,980	26,533	3,313	200	585	287	12,173	1,321	20,084	41,277	8,104	2,132	149
Boston, MA--NH PMSA	175,434	193,390	74,034	178,791	135,298	233,686	183,363	40,176	4,002	18,337	39,493	63,796	10,354	156,916	287,079	77,717	27,655	2,555
Boulder--Longmont, CO PMSA	10,693	13,250	6,582	10,999	5,970	11,748	11,178	3,160	290	685	295	7,283	563	10,571	19,417	4,472	1,543	184
Brazoria, TX PMSA	10,705	14,154	5,256	12,621	7,040	25,972	14,600	1,338	82	456	3,289	16,412	483	8,826	22,260	4,376	1,590	88
Bremerton, WA PMSA	10,809	13,884	5,073	12,332	7,762	14,659	15,948	1,901	123	990	1,111	2,832	1,648	10,746	20,837	5,308	1,575	93
Bridgeport, CT PMSA	17,047	18,789	6,635	17,152	14,735	33,109	18,496	2,843	284	745	7,709	16,317	977	13,039	29,068	7,273	2,409	238
Brockton, MA PMSA	12,572	14,391	5,244	13,712	8,916	20,706	17,096	1,811	113	331	2,838	3,184	1,789	11,715	22,791	6,058	1,819	81
Brownsville--Harlingen--San Benito, TX MSA	15,514	16,785	8,408	13,672	11,687	58,277	13,721	1,194	96	149	218	85,118	145	3,135	36,743	3,285	691	50
Bryan--College Station, TX MSA	7,512	9,533	7,520	5,193	3,337	11,980	10,238	1,189	121	711	2,834	9,138	250	6,078	17,997	2,035	556	47
Buffalo--Niagara Falls, NY MSA	59,398	66,079	22,790	58,867	54,687	101,619	76,018	7,944	758	1,346	21,629	9,822	2,452	55,797	117,474	22,920	6,571	370
Canton--Massillon, OH MSA	20,451	23,174	8,322	20,192	18,631	36,550	28,829	2,165	150	182	4,519	1,041	642	20,870	41,641	8,330	1,875	106
Cedar Rapids, IA MSA	9,259	10,801	4,045	9,592	7,464	11,156	13,172	1,700	85	215	530	595	234	9,975	17,384	4,554	1,100	63
Champaign--Urbana, IL MSA	9,105	10,987	6,231	7,949	6,032	10,033	12,528	1,525	178	1,241	2,726	1,588	341	8,611	18,692	3,935	899	59
Charleston--North Charleston, SC MSA	22,239	25,926	11,116	22,194	16,596	41,594	26,971	3,789	282	587	25,450	3,387	741	16,470	45,584	8,388	2,111	186
Charlotte--Gastonia--Rock Hill, NC--SC MSA	73,511	84,564	33,735	78,342	49,869	147,378	86,721	13,228	732	2,272	53,558	22,263	2,218	61,011	139,202	32,021	8,421	690
Charlottesville, VA MSA	8,317	9,118	4,310	7,863	5,840	12,736	8,595	1,777	178	519	4,014	1,078	213	7,406	15,760	3,388	813	82
Chattanooga, TN--GA MSA	22,222	24,517	9,377	21,820	18,757	46,415	26,732	3,040	214	499	11,732	1,720	619	20,171	44,831	8,492	1,906	151
Chicago, IL PMSA	393,957	454,454	183,535	410,698	280,987	761,592	439,205	74,246	5,916	39,806	250,626	412,972	14,798	276,279	698,970	169,111	58,928	4,850
Chico--Paradise, CA MSA	10,064	11,909	5,257	8,894	9,512	18,880	13,708	1,331	86	579	463	6,900	1,218	9,338	22,433	3,145	857	55
Cincinnati, OH--KY--IN PMSA	72,662	81,784	32,158	73,994	55,609	134,980	87,987	11,568	870	1,808	33,751	4,516	1,966	68,167	135,051	31,772	8,544	667
Clarksville--Hopkinsville, TN--KY MSA	6,132	7,594	3,781	6,257	3,500	10,696	8,988	786	49	278	4,469	2,093	389	5,164	13,345	2,711	481	22
Cleveland--Lorain--Elyria, OH PMSA	113,490	124,577	43,635	114,321	98,187	200,903	141,393	16,466	1,293	3,350	68,667	22,163	3,331	97,554	211,739	47,799	13,365	915
Colorado Springs, CO MSA	23,905	29,531	12,618	26,177	14,543	31,920	32,696	4,426	355	1,330	5,262	17,330	1,902	21,881	47,304	10,465	2,945	217
Columbia, MO MSA	6,917	7,825	4,600	6,125	3,900	8,221	8,365	1,393	137	402	1,755	734	294	6,720	14,364	2,583	575	44
Columbia, SC MSA	27,128	30,606	13,638	27,639	17,433	45,525	32,419	4,983	363	949	29,538	5,011	848	19,825	52,758	11,625	2,774	193
Columbus, GA--AL MSA	8,907	10,487	5,031	8,319	6,689	19,063	11,540	1,021	90	342	14,107	2,527	449	5,193	19,433	3,144	683	52
Columbus, OH MSA	71,216	80,710	34,795	73,273	47,061	109,009	88,004	13,559	912	3,871	32,971	8,824	2,982	64,860	129,697	32,980	9,153	610
Corpus Christi, TX MSA	12,167	14,489	6,057	12,756	8,425	28,667	15,280	1,448	108	302	1,266	39,454	447	6,853	25,885	4,255	1,297	76
Dallas, TX PMSA	156,677	189,872	83,206	173,419	85,073	349,860	172,237	31,052	1,979	13,920	82,004	232,551	6,986	108,867	293,094	67,635	20,747	2,007
Danbury, CT PMSA	8,921	10,449	3,148	10,610	6,201	13,037	9,011	2,345	201	580	1,003	4,070	464	8,634	13,633	3,746	1,630	211
Danville, VA MSA	5,797	6,115	1,996	5,558	5,661	16,093	6,731	371	35	44	6,253	310	79	4,303	12,529	1,884	326	19
Davenport--Moline--Rock Island, IA--IL MSA	13,363	14,991	5,964	12,984	11,243	21,930	18,071	1,840	121	370	2,605	5,139	471	12,809	26,300	5,519	1,421	80
Dayton--Springfield, OH MSA	48,064	53,238	21,309	46,573	39,934	80,711	63,537	6,170	521	1,126	22,757	3,682	1,660	44,321	91,174	20,363	5,600	335
Daytona Beach, FL MSA	23,235	26,640	7,954	20,905	28,683	42,554	32,068	2,594	200	608	7,394	9,916	792	21,578	50,040	8,157	1,714	135
Decatur, AL MSA	7,028	8,245	2,918	7,488	5,660	17,263	9,004	735	42	27	3,643	895	557	6,468	14,626	2,593	790	39
Decatur, IL MSA	5,788	6,542	2,427	5,732	5,063	9,542	8,306	654	41	86	2,010	312	104	5,702	11,334	2,448	630	35
Denver, CO PMSA	94,268	114,456	45,692	105,120	59,159	161,393	109,411	21,176	1,418	6,383	18,786	121,034	5,274	78,015	166,596	47,233	13,807	1,131
Des Moines, IA MSA	18,620	20,870	8,707	18,933	13,195	25,588	23,748	3,725	203	814	2,957	4,440	637	18,328	33,679	9,154	2,211	142
Detroit, MI PMSA	217,436	244,758	90,648	227,513	166,444	404,129	273,694	30,338	2,471	10,183	170,031	40,081	10,607	175,048	386,515	86,923	34,359	2,460
Dothan, AL MSA	6,707	7,761	3,037	6,761	5,447	15,195	8,842	702	41	135	5,147	902	300	5,682	14,804	2,246	517	29
Dover, DE MSA	6,042	6,898	2,783	6,044	4,753	12,661	7,936	639	52	194	4,056	1,063	318	5,146	12,309	2,572	541	28
Duluth--Superior, MN--WI MSA	10,130	11,989	4,318	10,144	9,327	14,561	14,960	1,359	90	127	153	503	660	11,008	21,041	4,270	1,029	41
Dutchess County, NY PMSA	13,164	16,613	5,167	15,109	10,942	24,059	16,771	2,193	212	620	4,629	5,147	489	12,725	24,577	5,750	2,245	148
Eau Claire, WI MSA	7,220	8,664	3,605	7,121	5,938	12,601	10,530	861	52	108	90	304	145	8,058	15,609	2,980	553	30
El Paso, TX MSA	31,597	34,926	17,073	29,773	21,351	98,997	32,993	2,958	202	713	3,400	166,164	887	6,533	73,341	7,710	1,733	120
Elkhart--Goshen, IN MSA	8,555	10,068	4,171	8,622	6,587	21,514	10,780	828	65	216	1,264	4,605	225	8,374	16,987	4,054	782	53
Erie, PA MSA	13,969	16,062	6,482	13,625	11,736	24,707	19,391	1,631	123	170	2,456	1,906	331	14,385	29,908	5,237	1,119	59
Eugene--Springfield, OR MSA	16,308	19,157	7,798	16,310	13,064	23,945	22,472	2,417	207	636	458	3,840	1,466	16,706	34,149	6,501	1,429	96
Evansville--Henderson, IN--KY MSA	12,862	14,057	5,422	12,349	11,200	21,362	17,777	1,409	111	150	2,127	536	223	13,178	25,317	5,001	1,335	78

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Fargo--Moorhead, ND--MN MSA	5,828	7,564	3,672	5,849	3,879	7,062	8,649	1,238	54	140	127	311	274	6,645	12,728	2,452	559	38
Fayetteville, NC MSA	13,547	17,493	8,732	13,809	8,061	23,249	20,829	1,682	102	731	17,648	6,149	1,310	8,963	30,638	5,469	1,160	57
Fayetteville--Springdale--Rogers, AR MSA	14,608	17,982	7,457	15,011	11,209	31,122	19,501	1,874	133	385	487	5,756	1,095	15,152	32,670	5,295	1,089	87
Fitchburg--Leominster, MA PMSA	6,972	7,975	2,836	7,372	5,533	14,026	8,900	897	68	233	602	3,138	291	6,862	13,297	3,264	843	35
Flagstaff, AZ--UT MSA	5,531	6,521	3,052	5,800	3,101	10,152	6,735	936	78	97	188	3,926	3,281	4,011	11,759	2,037	531	30
Flint, MI PMSA	11,686	12,573	5,466	11,153	8,873	24,508	16,061	796	61	177	14,232	1,819	767	7,797	23,836	3,766	1,284	58
Florence, AL MSA	7,313	8,108	2,963	7,081	6,681	16,853	9,040	739	62	41	3,292	504	139	6,924	15,534	2,459	570	40
Fort Collins--Loveland, CO MSA	11,425	14,043	6,847	11,764	6,565	12,248	14,614	2,692	215	342	217	6,041	604	11,740	21,819	5,127	1,489	124
Fort Lauderdale, FL PMSA	82,919	91,764	30,328	83,366	76,433	150,244	100,576	12,926	992	4,194	55,695	91,917	5,735	55,552	155,230	34,059	9,404	795
Fort Myers--Cape Coral, FL MSA	22,697	26,640	6,586	19,858	32,521	40,590	30,201	3,150	249	335	4,701	13,058	655	21,751	45,553	9,363	2,034	214
Fort Pierce--Port St. Lucie, FL MSA	16,674	19,076	4,798	14,556	23,278	31,793	21,646	2,168	170	245	6,367	7,750	552	15,158	33,776	6,068	1,454	170
Fort Smith, AR--OK MSA	8,220	9,579	3,635	8,402	6,738	20,132	10,792	739	44	364	1,004	2,656	808	7,991	18,469	2,728	498	40
Fort Walton Beach, FL MSA	8,232	10,220	3,819	8,571	7,036	11,478	11,787	1,286	112	507	2,646	2,651	622	7,834	16,986	3,401	896	69
Fort Wayne, IN MSA	22,089	25,443	10,074	22,604	16,961	38,065	30,864	2,603	199	469	5,322	4,294	580	22,018	42,749	10,133	2,445	133
Fort Worth--Arlington, TX PMSA	79,250	92,513	39,169	85,098	48,747	165,000	95,345	13,087	792	5,043	30,586	90,551	3,780	61,790	150,344	34,172	9,853	747
Fresno, CA MSA	42,064	49,389	22,913	41,413	29,070	131,611	45,957	4,220	280	6,066	7,523	120,101	3,687	21,531	94,890	12,297	3,415	221
Gadsden, AL MSA	5,270	5,757	2,052	5,010	5,034	12,785	6,650	404	35	38	2,249	440	131	4,954	11,379	1,717	386	20
Gainesville, FL MSA	11,630	12,960	7,782	9,777	7,152	13,954	14,535	1,996	231	824	7,499	4,193	600	9,286	24,828	3,609	913	82
Galveston--Texas City, TX PMSA	11,953	14,074	5,104	12,862	9,166	23,631	15,070	1,738	137	530	6,277	13,112	487	9,132	22,295	5,024	1,740	119
Gary, IN PMSA	31,307	34,979	13,899	31,198	24,781	58,929	42,469	3,317	255	640	22,297	20,969	948	23,985	60,321	11,829	4,403	194
Glens Falls, NY MSA	5,995	7,286	2,212	6,445	5,683	11,529	8,228	714	65	54	416	563	164	6,582	12,843	2,507	490	31
Goldsboro, NC MSA	5,546	6,457	2,514	5,681	4,386	12,661	7,253	601	35	120	6,859	1,463	162	3,880	12,425	1,856	373	23
Grand Junction, CO MSA	5,621	6,429	2,524	5,331	5,135	9,483	7,589	767	56	45	77	3,565	276	5,538	11,990	1,959	473	32
Grand Rapids--Muskegon--Holland, MI MSA	46,612	54,465	23,412	47,779	32,324	83,241	61,592	7,019	448	1,475	12,417	17,581	1,866	44,580	90,097	20,525	5,756	324
Greeley, CO PMSA	8,310	10,214	4,583	8,730	5,274	18,241	11,074	1,068	65	137	133	13,372	352	7,215	17,205	3,600	882	50
Green Bay, WI MSA	10,733	13,108	5,114	11,737	7,483	17,386	15,348	1,753	74	416	384	2,304	713	11,359	20,346	5,551	1,334	75
Greensboro--Winston-Salem--High Point, NC MSA	63,050	71,010	27,041	64,269	50,005	129,653	76,804	9,508	551	1,466	43,234	18,497	1,820	52,782	124,910	26,219	5,868	442
Greenville, NC MSA	7,053	7,357	3,940	6,229	4,624	13,718	8,263	992	72	134	8,486	1,240	185	4,722	14,447	2,466	501	37
Greenville--Spartanburg--Anderson, SC MSA	40,094	45,046	17,507	40,258	32,152	91,270	47,427	5,411	358	839	27,281	7,239	859	34,481	81,449	15,760	3,623	241
Hagerstown, MD PMSA	6,450	7,445	2,447	6,630	5,955	13,721	8,773	564	52	76	1,131	415	131	6,742	13,051	2,767	632	32
Hamilton--Middletown, OH PMSA	16,406	18,751	8,494	16,117	11,545	27,859	22,099	2,227	163	555	3,152	1,230	399	16,742	30,839	7,005	2,169	132
Harrisburg--Lebanon--Carlisle, PA MSA	31,998	35,855	12,945	32,057	27,797	56,770	42,499	4,032	310	736	6,277	4,643	696	32,136	61,723	14,398	3,337	182
Hartford, CT MSA	35,888	39,277	13,636	35,893	31,703	65,740	39,224	6,247	600	2,067	14,294	26,993	1,690	28,978	60,622	16,309	5,402	401
Hattiesburg, MS MSA	5,720	5,991	3,104	5,098	3,888	10,396	7,010	811	52	94	4,712	499	108	4,582	12,264	1,690	372	28
Hickory--Morganton--Lenoir, NC MSA	16,942	20,068	7,209	17,745	14,156	46,726	20,839	1,606	97	695	4,303	3,700	353	16,892	36,754	7,034	1,045	75
Honolulu, HI MSA	42,464	52,273	20,656	43,034	35,870	67,337	56,426	7,886	520	47,072	3,452	17,487	24,018	10,631	83,603	19,240	5,418	327
Houma, LA MSA	4,833	5,680	2,526	4,997	3,114	15,536	5,611	351	20	99	2,846	536	807	4,129	10,691	1,698	376	19
Houston, TX PMSA	194,165	230,499	101,946	210,720	108,541	488,429	208,339	32,606	2,239	21,964	124,828	374,865	7,649	110,232	382,046	74,633	22,709	2,153
Huntsville, AL MSA	16,966	19,264	7,501	17,789	12,278	29,639	19,768	3,249	229	469	13,138	2,074	1,008	14,020	32,561	6,320	2,225	160
Indianapolis, IN MSA	78,745	88,645	35,104	81,555	57,137	138,579	98,059	12,658	888	1,787	37,001	11,088	2,077	72,883	143,678	35,471	10,286	670
Iowa City, IA MSA	5,556	6,676	4,167	4,933	2,717	4,786	6,940	1,375	120	377	375	964	136	5,842	10,986	2,518	592	44
Jackson, MI MSA	7,695	9,377	3,312	8,275	6,342	14,274	11,197	871	57	76	1,796	1,058	272	8,008	15,498	3,476	911	43
Jackson, MS MSA	22,004	23,336	11,137	21,071	14,285	44,396	24,767	3,483	235	250	35,799	1,251	430	12,760	44,549	7,725	1,810	136
Jackson, TN MSA	5,470	5,798	2,504	5,161	4,248	11,975	6,459	661	47	77	5,896	271	119	4,040	11,308	1,917	370	31
Jacksonville, FL MSA	54,548	61,033	23,965	56,530	39,675	96,705	70,194	7,976	527	2,767	40,593	13,526	2,230	43,886	104,866	22,926	5,789	427
Jacksonville, NC MSA	5,826	10,251	6,275	5,431	3,353	9,876	11,955	569	36	301	4,448	3,739	517	5,898	16,959	2,169	420	19
Jamestown, NY MSA	7,020	8,030	3,011	6,869	6,308	13,985	9,653	622	62	45	402	1,438	197	7,382	15,280	2,574	510	24
Janesville--Beloit, WI MSA	7,275	8,683	3,069	7,771	5,946	12,996	10,608	793	54	103	827	1,406	179	7,696	13,696	3,652	956	44
Jersey City, NJ PMSA	30,698	35,756	15,951	30,574	21,711	81,247	31,164	5,152	355	6,357	12,431	84,674	2,477	13,162	61,968	11,831	3,440	224
Johnson City--Kingsport--Bristol, TN--VA MSA	16,293	18,361	6,450	16,143	14,952	36,226	20,351	1,855	139	115	1,412	983	281	17,315	35,188	5,585	1,162	83
Johnstown, PA MSA	11,817	14,191	4,727	11,447	12,584	24,556	17,444	938	60	59	928	580	115	13,070	28,037	3,765	616	27
Joplin, MO MSA	7,693	8,765	3,501	7,398	6,684	15,716	10,563	733	52	116	226	1,154	646	7,969	17,286	2,545	435	29
Kalamazoo--Battle Creek, MI MSA	22,280	25,514	10,646	22,149	17,114	37,163	30,611	2,874	217	557	5,857	4,585	1,187	21,633	44,163	9,373	2,388	136
Kankakee, IL PMSA	5,120	5,567	2,292	4,930	4,107	9,772	6,970	445	41	86	2,523	1,387	105	4,536	9,885	2,156	553	25
Kansas City, MO--KS MSA	82,288	93,584	36,240	85,538	61,492	130,120	103,260	14,778	1,007	2,842	34,028	25,689	3,799	74,468	149,051	38,793	10,750	701
Kenosha, WI PMSA	7,160	8,459	3,332	7,492	5,368	13,187	9,971	883	59	142	779	2,834	248	7,260	13,595	3,279	1,024	43
Killeen--Temple, TX MSA	14,106	18,079	9,447	13,509	9,111	24,830	21,715	1,578	108	846	9,586	13,940	999	10,762	32,508	5,195	1,083	68
Knoxville, TN MSA	29,687	33,030	12,824	29,461	24,265	55,167	36,287	4,396	353	650	6,966	1,672	845	29,714	60,986	10,541	2,685	199

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Kokomo, IN MSA	4,951	5,673	2,050	5,106	4,115	8,808	7,097	504	36	58	758	380	124	5,167	9,255	1,914	793	41
La Crosse, WI--MN MSA	5,444	6,033	2,993	4,873	4,087	6,339	7,752	801	61	140	210	192	177	5,746	10,841	2,311	446	33
Lafayette, LA MSA	12,055	13,544	6,147	12,039	7,945	28,291	13,972	1,702	101	264	9,122	1,224	161	10,291	25,717	3,751	1,087	75
Lafayette, IN MSA	8,922	11,076	6,652	7,548	5,706	11,701	13,491	1,178	116	760	519	2,702	294	9,275	19,523	3,311	903	48
Lake Charles, LA MSA	8,902	10,099	4,302	8,588	7,091	19,129	11,639	988	60	80	7,348	766	220	7,498	18,829	2,926	888	49
Lakeland--Winter Haven, FL MSA	24,078	27,646	9,190	22,439	26,318	57,704	30,463	2,399	177	614	11,070	12,620	898	20,984	51,717	8,754	1,855	119
Lancaster, PA MSA	22,689	26,048	10,138	22,445	19,209	51,282	27,933	2,931	188	680	1,750	6,673	456	23,266	44,393	10,197	2,333	141
Lansing--East Lansing, MI MSA	22,260	25,211	11,517	22,286	14,525	29,729	30,763	3,260	278	1,000	4,596	5,177	1,063	21,590	41,126	9,905	3,192	145
Laredo, TX MSA	8,431	9,446	5,160	7,833	4,841	34,649	7,144	542	52	80	53	55,147	56	472	20,705	1,605	375	21
Las Cruces, NM MSA	7,947	9,612	4,551	7,534	6,015	23,159	8,658	942	87	112	362	34,603	406	3,265	19,024	2,035	535	34
Las Vegas, NV--AZ MSA	64,073	81,016	31,001	69,613	48,784	144,830	87,980	7,392	504	8,131	21,117	91,842	5,601	47,733	130,795	28,552	7,577	488
Lawrence, MA--NH PMSA	12,846	14,093	5,317	13,485	9,268	25,554	13,699	2,225	203	811	460	16,284	407	10,750	23,191	4,873	1,637	169
Lexington, KY MSA	13,298	15,263	7,482	13,129	8,083	19,176	15,648	2,633	248	676	6,418	2,588	489	12,030	26,185	5,046	1,482	125
Lima, OH MSA	7,479	8,954	3,354	7,653	6,383	12,857	11,588	626	46	61	1,950	637	241	7,728	15,536	3,166	764	35
Lincoln, NE MSA	12,209	14,735	7,540	11,831	7,554	14,048	16,634	2,582	162	594	1,054	2,322	548	12,768	24,178	5,774	1,243	89
Little Rock--North Little Rock, AR MSA	29,101	32,899	13,979	28,888	21,625	52,539	37,337	4,240	295	499	20,855	3,262	978	25,021	59,232	11,447	2,668	177
Longview--Marshall, TX MSA	8,515	9,606	4,078	8,110	6,979	18,212	11,084	913	64	117	6,946	3,382	275	6,700	18,186	2,898	685	47
Los Angeles--Long Beach, CA PMSA	448,043	528,391	234,715	460,402	295,744	1,256,088	451,622	69,960	5,188	131,281	152,077	1,298,219	33,942	175,571	927,420	146,918	48,897	4,433
Louisville, KY--IN MSA	46,770	51,396	18,769	47,328	38,495	82,738	56,347	7,214	614	1,186	21,246	4,251	1,569	43,070	87,804	19,268	5,265	412
Lowell, MA--NH PMSA	13,852	16,163	5,843	15,565	9,282	25,233	16,593	2,423	196	2,313	951	5,311	720	13,008	24,013	6,539	2,173	159
Lubbock, TX MSA	11,933	13,685	7,030	10,999	8,074	23,440	14,929	1,741	123	339	2,939	20,045	284	8,999	25,781	4,047	927	69
Lynchburg, VA MSA	10,957	12,161	4,575	10,418	10,114	23,353	13,582	1,337	96	167	7,141	783	282	9,644	22,836	4,024	867	59
Macon, GA MSA	16,112	17,199	7,153	15,933	11,758	34,752	19,513	1,836	138	344	21,777	2,156	398	10,372	31,755	6,262	1,567	82
Madison, WI MSA	21,106	25,650	11,067	22,517	13,486	23,289	26,575	4,831	415	1,414	2,086	4,517	749	21,898	37,361	11,300	3,022	208
Manchester, NH PMSA	5,352	6,203	2,421	5,346	4,462	10,043	6,884	838	47	262	324	1,223	182	5,512	10,465	2,512	550	30
Mansfield, OH MSA	6,158	7,741	2,644	6,501	5,682	13,378	9,174	518	32	61	2,034	274	224	6,433	13,545	2,536	517	31
McAllen--Edinburg--Mission, TX MSA	24,836	28,662	15,270	22,534	16,433	105,200	20,910	1,796	126	369	533	151,023	275	3,368	62,710	4,469	898	65
Medford--Ashland, OR MSA	9,076	10,273	3,444	8,842	9,001	15,180	12,043	1,271	96	186	139	3,276	689	9,112	19,013	3,127	831	58
Melbourne--Titusville--Palm Bay, FL MSA	24,336	28,551	8,091	23,612	28,248	37,247	32,964	3,753	296	919	6,586	7,134	1,136	23,474	48,641	9,744	2,743	190
Memphis, TN--AR--MS MSA	48,972	52,808	22,866	49,338	32,460	96,626	56,911	7,349	554	1,940	76,017	6,946	1,218	28,395	92,973	19,605	5,061	403
Merced, CA MSA	9,021	11,124	5,071	9,098	6,305	31,273	10,265	675	38	1,268	1,085	28,258	944	4,566	21,075	2,711	689	43
Miami, FL PMSA	112,490	124,049	48,773	108,677	95,536	316,023	112,400	13,333	1,390	3,299	74,333	460,103	4,833	24,725	243,928	32,270	8,258	755
Middlesex--Somerset--Hunterdon, NJ PMSA	57,801	66,850	23,646	63,292	42,539	84,266	63,818	13,108	1,157	13,321	14,788	42,043	2,284	46,186	91,045	25,530	11,140	999
Milwaukee--Waukesha, WI PMSA	73,689	83,227	32,509	74,577	57,937	126,768	90,264	13,077	838	2,474	34,105	28,193	2,789	64,853	133,199	34,371	9,571	638
Minneapolis--St. Paul, MN--WI MSA	136,266	161,770	63,542	150,581	87,749	182,822	173,771	29,834	1,810	9,707	20,804	26,985	6,497	136,735	229,620	72,862	21,214	1,527
Mobile, AL MSA	26,971	29,062	11,896	25,846	21,844	58,193	32,932	3,093	227	672	25,484	2,377	1,098	20,636	55,820	9,111	2,229	154
Modesto, CA MSA	20,664	24,200	10,432	21,119	14,422	57,002	25,150	1,934	123	1,849	1,482	39,623	2,538	14,502	43,662	7,449	2,012	126
Monmouth--Ocean, NJ PMSA	56,625	62,474	18,750	57,218	55,454	85,255	69,113	10,369	761	3,179	10,860	20,253	1,604	53,458	94,868	22,548	9,252	846
Monroe, LA MSA	7,533	7,567	3,736	6,600	5,581	15,560	8,678	936	67	111	9,068	498	128	5,086	15,732	2,282	451	39
Montgomery, AL MSA	16,441	18,695	7,781	16,291	12,684	34,605	19,317	2,371	206	247	22,027	1,193	466	11,360	34,004	5,953	1,503	114
Muncie, IN MSA	6,155	6,899	3,357	5,358	5,087	10,965	8,383	626	65	58	1,281	437	143	6,271	13,001	2,184	533	28
Myrtle Beach, SC MSA	10,025	11,620	4,111	9,794	9,664	18,957	13,531	1,254	85	108	5,503	1,558	278	9,234	21,292	3,722	805	61
Naples, FL MSA	12,736	15,267	3,957	11,116	18,241	23,394	15,194	2,419	180	186	1,805	15,138	357	11,360	23,646	5,075	1,434	224
Nashua, NH PMSA	5,618	6,546	2,337	6,308	3,828	8,465	6,862	1,147	81	336	185	1,472	167	5,797	9,266	2,859	899	73
Nashville, TN MSA	61,268	70,147	29,211	64,116	41,024	117,784	73,360	10,645	666	1,833	31,875	12,006	2,369	55,247	116,384	26,977	6,919	525
Nassau--Suffolk, NY PMSA	135,798	154,847	49,333	146,259	114,233	192,937	158,587	25,616	2,794	10,220	37,249	83,826	4,757	119,947	218,392	54,414	24,564	2,550
New Bedford, MA PMSA	8,977	9,895	3,660	8,555	8,329	24,785	9,884	950	70	164	789	2,732	1,424	8,443	18,226	3,420	850	45
New Haven--Meriden, CT PMSA	18,205	19,856	7,968	17,812	14,538	30,644	20,894	2,763	341	1,036	7,781	12,874	818	14,668	31,835	8,018	2,601	174
New Orleans, LA MSA	62,472	67,781	28,143	61,856	46,268	137,883	72,024	8,340	631	2,785	81,594	19,427	2,138	38,794	128,426	21,278	5,500	383
New York, NY PMSA	479,694	510,761	215,293	467,364	356,643	1,105,518	460,341	77,841	7,913	96,302	361,000	751,283	39,260	226,890	898,597	164,902	56,548	5,256
Newark, NJ PMSA	101,401	111,795	39,035	107,737	77,657	179,494	109,112	19,906	1,676	9,071	71,066	83,471	4,648	70,610	167,910	41,796	15,894	1,602
Newburgh, NY--PA PMSA	15,853	19,081	6,894	17,814	11,084	29,680	20,907	2,121	203	532	3,692	10,460	547	14,890	29,173	6,922	2,540	161
Norfolk--Virginia Beach--Newport News, VA--NC MSA	74,939	87,694	38,583	76,421	50,950	123,542	100,734	11,057	846	5,013	85,143	15,323	3,802	53,087	148,877	32,288	7,995	515
Oakland, CA PMSA	117,320	135,090	51,031	127,408	81,100	196,890	126,911	25,448	2,144	44,787	50,835	134,749	12,409	67,030	194,067	49,978	19,885	1,946
Ocala, FL MSA	13,503	15,183	4,095	11,356	18,833	28,121	18,430	1,133	97	210	5,322	4,861	480	12,307	30,097	4,240	786	64
Odessa--Midland, TX MSA	11,295	12,697	5,317	11,153	8,624	29,407	12,984	1,414	70	118	2,260	24,519	262	7,773	23,863	3,737	959	75
Oklahoma City, OK MSA	43,852	50,792	22,762	43,283	31,379	79,540	55,623	6,875	494	2,867	17,127	19,549	6,876	36,536	90,537	17,012	4,121	280
Olympia, WA PMSA	10,235	12,248	4,875	10,806	7,493	15,116	13,433	1,788	152	947	744	2,871	1,234	9,963	19,112	4,856	1,538	68
Omaha, NE--IA MSA	28,185	32,399	13,877	29,040	19,023	42,138	35,552	5,541	335	1,056	9,423	11,358	1,217	25,909	53,358	12,680	3,241	234

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Orange County, CA PMSA	134,096	161,225	66,178	144,009	89,840	292,906	147,075	26,258	1,808	43,966	7,251	269,242	9,235	82,219	249,413	52,034	19,428	1,922
Orlando, FL MSA	80,649	95,094	35,604	83,836	65,256	146,487	102,256	13,799	855	4,585	35,956	86,898	4,481	62,726	162,847	32,577	8,153	667
Panama City, FL MSA	7,369	8,425	2,927	7,544	6,462	13,667	10,029	814	70	303	2,810	840	395	6,942	15,465	2,771	623	41
Pensacola, FL MSA	20,051	24,349	9,412	20,476	16,840	37,131	27,230	2,847	200	808	12,191	3,578	1,441	17,858	43,274	7,354	1,873	131
Peoria--Pekin, IL MSA	17,195	19,810	7,522	17,069	14,888	27,884	24,017	2,289	153	338	3,957	1,606	386	17,516	33,045	7,349	2,202	118
Philadelphia, PA--NJ PMSA	256,017	281,363	103,186	257,603	212,630	447,368	298,432	43,807	3,570	17,151	155,837	74,241	8,344	210,914	451,720	109,644	35,789	2,691
Phoenix--Mesa, AZ MSA	144,059	175,435	73,090	146,519	111,461	291,315	178,121	24,200	1,694	7,147	17,747	229,654	10,644	115,651	281,841	62,228	17,258	1,441
Pittsburgh, PA MSA	119,237	130,417	43,268	114,078	119,390	185,683	155,311	17,474	1,327	2,514	28,718	5,702	2,362	118,773	239,348	43,059	11,804	783
Portland, ME MSA	12,256	13,727	4,640	13,324	9,299	14,940	14,788	2,683	198	363	536	798	437	12,887	22,725	5,565	1,326	111
Portland--Vancouver, OR--WA PMSA	86,724	102,799	40,299	95,179	57,158	132,089	110,041	16,926	1,160	9,122	8,776	38,436	7,100	82,013	160,089	39,967	11,748	863
Providence--Fall River--Warwick, RI--MA MSA	52,773	57,057	21,852	51,154	44,900	120,285	59,366	7,075	545	2,387	6,007	25,682	3,397	48,795	102,087	21,229	5,703	301
Provo--Orem, UT MSA	16,220	19,168	13,814	12,662	7,326	22,256	22,796	2,790	158	387	182	6,757	769	16,726	35,207	5,218	1,603	101
Pueblo, CO MSA	6,717	7,609	3,003	6,312	6,166	13,670	8,929	734	51	122	454	16,941	297	4,442	14,795	2,286	475	23
Punta Gorda, FL MSA	7,816	8,708	1,703	5,616	14,006	14,053	10,539	853	76	103	1,257	1,539	215	7,860	16,208	2,907	571	52
Racine, WI PMSA	8,955	10,256	3,353	9,623	7,437	16,017	12,077	1,221	73	54	2,283	3,027	184	8,750	16,023	4,259	1,354	66
Raleigh--Durham--Chapel Hill, NC MSA	58,657	68,000	29,845	63,053	33,437	95,281	63,012	13,887	1,031	3,298	47,810	21,558	2,092	45,950	106,598	25,631	7,921	678
Reading, PA MSA	18,485	21,076	7,485	18,669	16,312	37,996	24,287	2,134	146	349	1,499	7,544	389	18,624	36,012	8,071	2,039	113
Redding, CA MSA	7,997	9,157	2,936	8,200	7,514	13,698	11,270	955	62	299	128	2,479	1,031	7,876	16,788	2,786	773	49
Reno, NV MSA	16,079	20,185	7,521	17,853	11,826	29,339	21,723	2,651	169	1,512	1,140	16,966	2,054	14,054	31,095	7,622	2,072	155
Richland--Kennewick--Pasco, WA MSA	8,621	10,723	4,550	9,086	6,037	20,847	10,507	1,182	97	441	335	12,292	444	7,552	17,806	3,272	1,159	65
Richmond--Petersburg, VA MSA	50,333	55,203	20,942	52,909	35,918	89,050	56,889	9,585	661	2,225	53,457	7,300	1,935	36,354	89,644	23,256	6,225	455
Riverside--San Bernardino, CA PMSA	145,753	176,440	74,176	148,852	109,507	369,386	185,616	15,032	1,115	13,974	38,207	349,812	11,904	88,024	305,600	52,707	16,786	1,068
Roanoke, VA MSA	12,400	13,213	4,574	12,221	11,039	22,753	15,304	1,731	119	195	5,627	904	380	11,340	24,442	4,869	1,036	79
Rochester, MN MSA	5,906	6,919	2,541	6,475	4,206	8,019	7,604	1,161	84	365	293	569	212	6,217	10,208	3,268	755	59
Rochester, NY MSA	50,911	57,616	21,342	52,750	40,195	83,742	63,666	7,977	722	1,890	16,054	12,759	1,973	48,007	96,437	22,210	6,225	361
Rockford, IL MSA	15,263	17,976	6,479	16,048	12,512	29,980	20,695	1,889	123	335	4,210	6,518	397	14,674	28,839	7,158	1,983	109
Rocky Mount, NC MSA	7,260	7,757	2,724	7,448	5,837	18,151	8,754	696	34	26	10,502	1,169	147	4,524	15,235	2,607	481	29
Sacramento, CA PMSA	78,987	90,104	34,453	82,027	60,292	132,857	100,001	13,340	883	15,968	20,251	67,721	8,618	59,438	143,894	33,713	11,640	732
Saginaw--Bay City--Midland, MI MSA	19,787	22,735	8,398	20,343	16,235	35,179	28,269	2,132	137	334	5,427	4,648	615	19,376	39,912	7,496	2,254	130
St. Cloud, MN MSA	8,078	10,128	4,480	8,148	6,028	14,411	12,122	968	56	202	132	514	157	9,144	17,252	3,746	668	39
St. Joseph, MO MSA	4,996	5,953	2,405	4,921	4,244	8,824	7,294	566	35	45	472	635	141	5,365	10,815	1,968	385	24
St. Louis, MO--IL MSA	129,646	143,917	55,326	130,105	104,109	235,694	159,768	19,359	1,507	3,746	79,646	12,421	3,732	113,967	241,786	55,686	15,488	1,052
Salem, OR PMSA	13,131	16,098	6,530	13,256	10,790	28,459	17,364	1,708	114	537	333	12,857	1,023	12,283	27,578	5,435	1,366	76
Salinas, CA MSA	12,872	16,493	7,110	13,494	9,232	36,905	14,133	1,807	166	2,390	2,628	35,374	1,268	7,024	27,168	4,891	1,571	117
Salt Lake City--Ogden, UT MSA	59,115	74,198	37,719	58,841	35,427	102,327	80,789	9,816	653	3,238	2,229	39,622	4,146	58,602	120,318	25,880	6,959	470
San Antonio, TX MSA	74,389	84,913	37,438	73,820	53,012	166,876	87,915	10,108	799	2,539	18,760	247,562	2,967	35,509	154,488	26,087	6,974	542
San Diego, CA MSA	132,485	164,330	70,776	136,302	96,670	241,252	164,640	24,387	1,927	27,899	26,091	225,462	12,874	90,534	263,559	52,935	17,068	1,439
San Francisco, CA PMSA	89,029	107,898	37,099	97,671	71,309	140,574	84,823	25,641	2,079	45,936	16,403	97,279	8,276	55,195	142,625	38,811	15,566	1,971
San Jose, CA PMSA	79,693	100,461	39,152	89,833	52,743	141,074	80,486	20,094	1,897	47,648	8,031	120,512	6,894	44,813	130,367	31,645	15,076	1,951
San Luis Obispo--Atascadero--Paso Robles, CA MSA	11,956	15,431	6,304	11,812	10,757	18,974	16,929	2,003	150	883	881	13,014	963	10,957	25,344	4,387	1,501	116
Santa Barbara--Santa Maria--Lompoc, CA MSA	19,286	23,384	10,433	18,444	15,653	38,711	22,796	3,338	287	1,795	1,400	40,510	1,311	13,800	38,778	6,883	2,351	226
Santa Cruz--Watsonville, CA PMSA	12,630	15,331	6,513	13,652	7,930	23,238	14,373	2,637	206	1,118	367	22,381	1,025	9,817	23,885	4,741	1,703	196
Santa Fe, NM MSA	7,407	8,504	2,865	8,144	5,635	12,217	7,605	1,469	187	160	209	21,777	922	4,253	13,585	3,017	896	102
Santa Rosa, CA PMSA	22,556	26,725	9,294	24,601	17,626	38,073	27,856	4,250	303	1,552	1,030	23,126	2,022	19,930	39,669	10,271	3,484	288
Sarasota--Bradenton, FL MSA	31,985	34,653	8,212	26,305	46,850	47,139	40,841	4,932	411	616	5,757	11,044	730	30,744	59,987	12,858	3,051	343
Savannah, GA MSA	11,530	13,072	5,449	11,000	9,664	23,303	13,600	1,842	132	364	16,935	1,669	351	7,275	23,579	4,160	1,055	93
Scranton--Wilkes-Barre--Hazleton, PA MSA	32,444	36,751	12,299	31,443	32,555	56,602	44,982	3,656	286	377	1,322	2,003	380	35,006	68,778	11,941	2,610	154
Seattle--Bellevue--Everett, WA PMSA	114,397	137,601	51,187	129,380	75,244	145,863	137,841	28,222	1,912	24,401	16,675	37,305	11,938	102,376	192,276	56,424	19,838	1,514
Sharon, PA MSA	6,029	7,020	2,482	5,841	5,935	10,690	8,676	643	45	62	667	230	101	6,483	13,234	2,281	444	17
Sheboygan, WI MSA	5,309	6,568	2,234	5,778	4,502	9,265	7,765	711	39	231	251	680	103	5,817	10,179	2,884	603	33
Shreveport--Bossier City, LA MSA	19,636	21,467	8,861	18,853	15,889	42,807	24,277	2,242	157	308	24,454	2,409	629	13,509	41,413	6,599	1,510	107
Sioux City, IA--NE MSA	5,064	5,574	2,325	4,785	4,221	9,067	6,769	652	36	188	219	1,945	223	4,983	10,329	2,115	394	19
Sioux Falls, SD MSA	5,926	7,247	3,323	6,016	3,989	8,517	8,142	1,166	58	116	264	712	521	6,347	12,339	2,703	498	36
South Bend, IN MSA	13,172	14,839	6,393	12,271	11,113	23,732	16,962	1,728	154	358	4,651	3,435	465	12,309	26,578	5,240	1,259	79
Spokane, WA MSA	20,554	24,094	9,808	20,869	15,833	29,324	28,595	3,157	239	944	1,115	3,366	1,740	21,089	42,647	8,114	1,947	127
Springfield, IL MSA	5,739	6,125	2,373	5,512	4,865	7,768	6,840	1,073	89	147	2,651	463	140	5,220	10,479	2,496	700	39
Springfield, MO MSA	16,389	18,872	8,388	15,705	12,710	28,598	22,279	2,203	146	228	819	1,569	977	17,309	35,814	5,752	1,092	87
Springfield, MA MSA	30,762	32,814	14,375	28,420	24,747	53,651	37,802	4,120	389	1,264	6,027	21,180	1,141	26,966	58,899	12,957	3,085	168
Stamford--Norwalk, CT PMSA	17,615	19,763	5,524	19,390	15,352	22,725	14,754	5,104	548	1,421	4,810	12,321	731	15,084	25,136	6,324	2,812	586
State College, PA MSA	6,895	8,705	4,677	6,264	4,780	9,093	10,033	1,032	109	490	619	571	168	7,490	15,777	2,465	508	39
Stockton--Lodi, CA	25,674	30,681	13,057	26,020	19,081	71,254	31,698	2,426	149	6,249	5,614	49,451	2,689	15,410	53,913	9,220	2,853	175

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
MSA																		
Sumter, SC MSA	5,054	5,844	2,511	5,059	3,699	13,295	6,228	486	31	114	9,022	583	141	2,829	11,518	1,645	309	15
Syracuse, NY MSA	35,925	41,371	15,521	36,845	29,219	62,014	47,317	4,807	445	879	6,185	3,969	1,618	36,632	72,024	14,999	3,756	210
Tacoma, WA PMSA	33,185	40,145	16,124	36,238	21,989	54,707	47,313	4,617	308	4,564	8,053	11,494	4,604	29,484	63,642	15,457	4,503	239
Tallahassee, FL MSA	14,749	16,430	9,077	13,545	8,522	22,434	17,075	2,736	265	600	18,607	3,945	391	9,734	29,934	5,460	1,372	100
Tampa--St. Petersburg--Clearwater, FL MSA	124,534	137,304	43,103	116,594	135,627	224,377	158,006	17,538	1,252	5,111	40,345	79,176	4,870	107,528	247,414	47,730	11,347	959
Terre Haute, IN MSA	7,439	8,780	3,595	7,057	6,680	14,124	10,565	665	73	109	913	563	184	7,941	16,413	2,627	606	30
Toledo, OH MSA	30,727	34,257	14,820	29,565	23,768	51,885	41,716	3,796	285	661	11,940	7,483	1,142	28,375	60,341	12,333	3,393	187
Topeka, KS MSA	8,607	9,328	3,555	8,442	7,185	12,458	11,133	1,350	102	129	2,446	3,222	549	7,827	16,452	3,883	792	49
Trenton, NJ PMSA	17,705	19,751	7,218	18,382	13,894	31,942	18,358	3,314	369	1,918	11,193	11,174	708	13,213	29,601	7,626	2,794	254
Tucson, AZ MSA	42,313	47,665	19,424	40,065	36,782	74,933	51,946	6,328	591	1,825	3,871	75,562	5,010	30,525	87,424	14,879	3,753	315
Tulsa, OK MSA	34,010	38,917	15,815	34,678	25,323	60,815	43,484	5,350	342	757	11,234	10,462	8,547	28,693	67,930	13,645	3,532	239
Tuscaloosa, AL MSA	8,458	9,286	4,758	7,689	5,766	16,493	10,404	1,066	99	192	8,278	592	245	6,548	17,480	3,004	764	43
Tyler, TX MSA	8,728	9,538	3,923	8,142	7,545	17,325	10,766	1,169	81	155	5,793	4,878	247	6,884	17,640	3,104	814	60
Utica--Rome, NY MSA	14,777	17,773	5,910	15,171	14,141	31,369	19,907	1,566	143	247	1,916	2,326	375	15,686	32,240	6,007	1,101	58
Vallejo--Fairfield--Napa, CA PMSA	24,638	29,809	11,498	26,607	17,893	46,844	32,475	3,755	247	5,961	9,685	29,425	2,929	16,429	45,268	11,244	3,800	247
Ventura, CA PMSA	35,033	42,288	16,293	38,521	24,089	76,561	40,981	5,854	444	4,419	2,636	78,217	2,151	23,745	64,698	14,013	5,250	487
Vineland--Millville--Bridgeton, NJ PMSA	6,835	8,716	2,990	7,468	5,899	20,423	8,785	539	38	111	4,770	7,429	380	5,248	15,257	2,650	686	28
Visalia--Tulare--Porterville, CA MSA	16,046	19,775	9,208	15,807	11,526	60,316	17,046	1,099	75	1,122	814	54,061	1,431	8,522	38,631	4,136	1,118	74
Waco, TX MSA	10,550	11,678	5,535	9,385	8,567	22,492	13,669	1,079	77	170	4,701	10,634	251	8,339	22,505	3,713	720	52
Washington, DC--MD--VA--WV PMSA	233,808	266,645	102,219	260,773	143,442	346,434	229,222	54,695	6,145	35,081	222,485	137,074	13,950	150,073	353,810	108,486	43,726	4,390
Waterbury, CT PMSA	5,326	5,852	2,449	4,882	4,705	13,279	6,518	484	34	172	2,734	6,525	294	3,779	10,611	2,234	517	20
Waterloo--Cedar Falls, IA MSA	6,460	7,217	3,496	5,623	5,360	8,918	9,226	839	62	137	1,349	574	162	6,508	13,627	2,297	544	30
Wausau, WI MSA	5,940	7,412	2,561	6,637	4,674	11,194	8,801	684	39	273	57	253	104	6,682	12,120	3,002	565	31
West Palm Beach--Boca Raton, FL MSA	59,145	65,543	18,311	52,158	75,607	97,446	70,472	10,378	833	1,829	26,702	45,397	2,465	48,013	106,827	23,287	6,601	875
Wichita, KS MSA	25,906	30,023	11,964	26,328	20,212	43,089	34,274	4,156	257	1,380	6,694	10,323	1,705	24,043	49,741	11,867	3,063	166
Wichita Falls, TX MSA	6,231	8,024	3,813	5,809	5,140	12,575	8,951	796	50	294	2,205	5,057	405	5,596	14,756	2,180	407	28
Williamsport, PA MSA	6,069	7,135	2,319	6,313	5,622	11,409	8,870	564	39	39	306	179	89	6,691	13,333	2,268	464	21
Wilmington--Newark, DE--MD PMSA	25,184	27,638	10,933	25,450	19,010	37,520	30,291	4,547	378	1,349	15,883	7,732	752	20,701	42,000	11,800	3,895	278
Wilmington, NC MSA	12,111	13,730	4,916	11,677	11,606	19,553	15,608	2,103	118	133	6,893	1,959	388	10,902	24,464	4,506	1,154	99
Worcester, MA--CT PMSA	14,439	15,799	6,240	13,864	12,280	24,721	16,871	2,441	208	1,160	1,762	7,533	623	13,212	26,581	6,157	1,862	107
Yakima, WA MSA	9,988	12,241	5,317	10,055	7,525	32,223	11,374	862	68	318	216	22,813	1,433	7,019	22,966	3,362	708	44
Yolo, CA PMSA	8,463	9,512	5,259	7,672	5,105	15,127	9,340	1,463	161	1,815	559	13,131	924	5,785	16,831	2,975	961	72
York, PA MSA	18,867	21,915	7,486	20,195	15,407	36,547	25,567	2,251	155	296	1,912	3,260	375	19,834	36,319	9,091	2,137	99
Youngstown--Warren, OH MSA	29,964	34,208	11,879	29,485	28,531	57,299	42,292	2,955	189	288	10,145	3,309	717	29,479	63,117	11,123	2,729	135
Yuba City, CA MSA	6,412	7,538	3,104	6,374	5,143	17,316	8,046	568	35	1,134	543	7,780	837	4,904	14,091	2,113	562	33
Yuma, AZ MSA	7,333	8,945	3,740	6,513	7,466	24,269	8,602	460	42	112	509	25,082	502	4,023	17,579	2,038	466	27

Appendix G. Estimated Incidence of Lack of Computer Access per City.

Table 18. Estimated Incidence of Lack of Computer Access per City.

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Abilene, TX MSA	15737	13544	3186	10663	14237	14207	22933	2178	469	368	1644	3868	523	19044	34434	4600	869	208
Akron, OH PMSA	87206	75730	13570	67186	84322	65246	129111	14561	3184	2132	16497	1183	2037	120455	167110	32749	8753	1833
Albany, GA MSA	15121	12339	2673	10991	12537	17345	19460	1776	431	178	14087	360	178	11589	31097	4433	1184	207
Albany--Schenectady--Troy, NY MSA	100138	87527	14779	78605	99319	71676	140568	16845	6035	3424	9690	3118	2701	143228	185325	40188	11841	1984
Albuquerque, NM MSA	87081	77732	14637	69444	74805	76105	117893	14564	4727	2561	3339	54311	14702	70360	177457	29312	7661	1879
Alexandria, LA MSA	15601	13684	2670	11422	15522	19358	21066	1585	410	166	9434	498	517	16376	35477	3918	870	201
Allentown--Bethlehem--Easton, PA MSA	81226	71487	11576	62361	88646	73291	117796	11502	2927	2240	3378	8065	1673	115659	159207	30290	7932	1518
Altoona, PA MSA	16854	14542	2500	12271	19020	14093	27567	1608	331	173	261	124	227	25924	37232	5002	964	146
Amarillo, TX MSA	26528	22785	4693	19281	24634	25582	36913	3717	913	1027	2458	6997	814	31565	55399	8233	2022	426
Anchorage, AK MSA	29597	28400	5865	26909	14237	20234	45477	5712	1457	2738	3510	2671	6942	35768	51142	12808	4849	1027
Ann Arbor, MI PMSA	58665	53946	11545	48483	37620	30510	77424	14383	5084	4803	8506	2147	2310	80755	99033	22420	9670	2481
Anniston, AL MSA	14276	12190	2340	10244	14742	16654	19732	1282	406	113	4959	388	447	17690	31152	4289	791	151
Appleton--Oshkosh--Neenah, WI MSA	42666	40794	7313	35568	37476	32395	70048	6873	1179	904	511	985	938	67839	80824	21007	4612	692
Asheville, NC MSA	29328	24981	4212	21471	32930	24776	39483	5116	1299	569	3256	1058	586	41452	60690	9383	1963	550
Athens, GA MSA	19797	17570	5009	12913	13829	15919	26937	3447	1154	824	6437	1188	376	24472	42847	5807	1370	351
Atlanta, GA MSA	481568	431613	86354	409299	306298	419729	607708	107594	24253	29682	265602	47931	15106	482473	857287	194014	60106	16008
Atlantic--Cape May, NJ PMSA	45260	38866	5889	35029	50113	43652	63072	6602	1409	2915	10905	6109	1484	53161	86212	16717	4710	924
Auburn--Opelika, AL MSA	14493	12935	4007	9063	9135	10597	21956	2032	743	507	6599	342	365	17016	31704	4272	985	224
Augusta--Aiken, GA--SC MSA	55443	47548	9335	42511	47994	56405	75500	7612	1899	1439	33999	2097	1464	56193	113322	17345	4809	998
Austin--San Marcos, TX MSA	138965	132344	30472	112908	84285	113154	174628	35887	8490	9713	20471	55872	4957	147952	260757	55299	16511	4900
Bakersfield, CA MSA	72513	68224	14166	56972	59570	108921	94496	6845	1539	4605	6784	43077	4743	64731	162394	19885	6252	1204
Baltimore, MD PMSA	317066	268580	45612	252463	291877	269416	399314	58438	18229	15380	155770	9288	9163	344676	541801	128979	41708	9187
Barnstable--Yarmouth, MA MSA	19138	15899	1782	13643	28202	8971	26846	4148	1169	193	487	299	1043	27954	33343	7834	2135	517
Baton Rouge, LA MSA	73939	64486	14363	56027	55488	67950	103869	11083	2782	1933	42982	1928	1587	78839	150841	23398	7077	1318
Beaumont--Port Arthur, TX MSA	46157	42563	7846	35019	47535	50258	70387	4986	912	1552	21158	5484	1230	51035	99434	14616	4004	718
Bellingham, WA MSA	20877	18959	4252	15316	17574	13872	32691	3640	797	1175	207	1558	2735	28821	43294	7271	1792	374
Benton Harbor, MI MSA	20351	17747	3052	15504	21149	18012	30088	2552	758	375	4394	960	654	27044	40703	7119	1793	395
Bergen--Passaic, NJ PMSA	173611	150548	23509	138763	176406	146873	209241	38870	10075	25425	24352	45170	6390	185488	288312	64524	24364	7954
Billings, MT MSA	15778	13985	2442	12775	14179	10058	23569	3401	514	124	107	760	1117	23355	32330	5590	1229	287
Biloxi--Gulfport--Pascagoula, MS MSA	38075	34904	6802	29664	34186	36493	58429	4531	1150	1613	16408	1357	1258	45301	82145	12721	2885	536
Binghamton, NY MSA	32172	27893	4737	24021	35098	26102	47834	4084	1419	1279	1329	807	791	47315	66600	10534	2494	531
Birmingham, AL MSA	103502	84474	16598	76625	93271	92886	132783	18064	4134	1655	62679	2371	1860	104896	196355	35566	9270	2360
Bloomington, IN MSA	16681	14012	4713	9733	9838	7599	23322	3269	1282	1118	932	385	570	23474	35332	4393	1266	293
Bloomington--Normal, IL MSA	19324	16856	3845	14345	14764	10532	28238	4365	864	629	1544	596	428	27973	35259	7560	2388	456
Boise City, ID MSA	49593	47399	9545	40438	39092	43176	73912	8992	1795	1252	383	7193	2641	71727	103192	17945	4798	1042
Boston, MA--NH PMSA	438583	373888	67303	342683	400012	280423	510798	109050	36014	39294	52657	37697	20707	560415	717697	172087	62224	17886
Boulder--Longmont, CO PMSA	26733	25617	5983	21081	17649	14097	31139	8577	2606	1468	393	4303	1126	37753	48541	9902	3471	1284
Brazoria, TX PMSA	26762	27364	4778	24189	20814	31166	40671	3631	740	976	4385	9697	965	31522	55650	9690	3576	613
Bremerton, WA PMSA	27023	26842	4612	23636	22947	17590	44425	5158	1102	2121	1480	1673	3295	38379	52091	11754	3543	649
Bridgeport, CT PMSA	42617	36325	6031	32875	43564	39730	51525	7716	2553	1596	10279	9641	1954	46569	72669	16104	5419	1664
Brockton, MA PMSA	31431	27822	4767	26281	26359	24846	47623	4915	1018	709	3783	1881	3577	41840	56978	13413	4092	565
Brownsville--Harlingen--San Benito, TX MSA	38784	32451	7643	26205	34554	69932	38221	3241	861	320	290	50297	290	11198	91856	7273	1555	346
Bryan--College Station, TX MSA	18779	18431	6836	9954	9865	14375	28520	3227	1086	1524	3778	5399	500	21706	44993	4505	1250	328
Buffalo--Niagara Falls, NY MSA	148494	127752	20718	112827	161682	121942	211763	21562	6821	2884	28838	5803	4904	199275	293685	50751	14785	2591
Canton--Massillon, OH MSA	51127	44803	7565	38700	55082	43860	80310	5877	1346	388	6025	615	1284	74536	104103	18444	4219	744
Cedar Rapids, IA MSA	23146	20881	3676	18385	22068	13386	36692	4614	762	460	707	351	468	35625	43460	10084	2476	440
Champaign--Urbana, IL MSA	22761	21240	5664	15235	17833	12039	34899	4140	1599	2659	3634	938	682	30752	46730	8713	2023	414
Charleston--North Charleston, SC MSA	55597	50123	10105	42538	49067	49912	75132	10285	2537	1257	33933	2001	1482	58822	113960	18573	4749	1303
Charlotte--Gastonia--Rock	183776	163490	30667	150154	147440	176853	241579	35905	6586	4868	71410	13155	4435	217894	348004	70903	18948	4831

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Hill, NC--SC MSA																		
Charlottesville, VA MSA	20792	17627	3918	15070	17266	15283	23943	4824	1605	1111	5352	637	425	26449	39399	7500	1829	572
Chattanooga, TN--GA MSA	55555	47400	8524	41822	55456	55697	74467	8251	1929	1069	15643	1016	1237	72038	112078	18802	4287	1056
Chicago, IL PMSA	984893	878610	166850	787171	830744	913910	1223501	201526	53247	85297	334167	244028	29595	986711	1747426	374460	132588	33947
Chico--Paradise, CA MSA	25159	23024	4778	17046	28122	22656	38186	3613	770	1240	616	4077	2435	33349	56082	6964	1928	381
Cincinnati, OH--KY--IN PMSA	181653	158115	29234	141822	164409	161976	245105	31398	7834	3874	45001	2668	3932	243454	337626	70352	19223	4669
Clarksville--Hopkinsville, TN--KY MSA	15330	14682	3437	11991	10346	12835	25037	2132	442	595	5958	1236	777	18444	33362	6002	1083	154
Cleveland--Lorain--Elyria, OH PMSA	283724	240848	39668	219115	290291	241084	393880	44692	11634	7179	91556	13096	6662	348408	529346	105840	30070	6401
Colorado Springs, CO MSA	59763	57093	11470	50173	42996	38304	91081	12013	3192	2849	7016	10240	3803	78147	118259	23172	6627	1520
Columbia, MO MSA	17292	15129	4181	11739	11530	9864	23303	3781	1234	861	2340	433	588	23999	35910	5720	1294	305
Columbia, SC MSA	67820	59171	12398	52975	51541	54629	90309	13524	3267	2032	39384	2961	1695	70803	131895	25741	6241	1350
Columbus, GA--AL MSA	22266	20275	4573	15943	19775	22876	32146	2770	810	732	18809	1493	898	18545	48582	6961	1535	363
Columbus, OH MSA	178041	156039	31631	140439	139135	130810	245154	36804	8209	8294	43961	5214	5963	231643	324242	73027	20593	4271
Corpus Christi, TX MSA	30418	28011	5506	24448	24907	34400	42564	3930	974	647	1687	23313	894	24476	64713	9421	2918	529
Dallas, TX PMSA	391692	367086	75641	332385	251519	419831	479803	84284	17808	29828	109338	137416	13972	388811	732735	149763	46681	14049
Danbury, CT PMSA	22302	20200	2861	20336	18334	15644	25102	6366	1804	1242	1337	2404	927	30835	34081	8295	3668	1478
Danville, VA MSA	14491	11822	1814	10652	16735	19311	18750	1007	315	95	8337	183	158	15366	31322	4172	732	135
Davenport--Moline--Rock Island, IA--IL MSA	33407	28982	5421	24885	33241	26315	50339	4993	1087	792	3472	3036	941	45746	65749	12221	3197	559
Dayton--Springfield, OH MSA	120159	102926	19371	89265	118064	96853	176995	16746	4684	2412	30342	2175	3319	158288	227936	45089	12599	2343
Daytona Beach, FL MSA	58088	51503	7231	40067	84800	51065	89333	7041	1799	1303	9859	5859	1583	77063	125100	18062	3856	947
Decatur, AL MSA	17569	15940	2652	14351	16733	20715	25083	1995	376	58	4857	528	1114	23101	36565	5742	1778	271
Decatur, IL MSA	14469	12646	2206	10985	14969	11450	23137	1774	368	183	2679	184	207	20363	28335	5421	1417	245
Denver, CO PMSA	235669	221281	41538	201480	174905	193671	304788	57477	12761	13677	25047	71520	10548	278624	416490	104588	31065	7916
Des Moines, IA MSA	46549	40348	7915	36288	39011	30706	66154	10111	1824	1744	3943	2623	1273	65456	84196	20269	4973	992
Detroit, MI PMSA	543589	473199	82406	436067	492096	484954	762434	82345	22236	21819	226708	23684	21214	625170	966288	192471	77307	17221
Dothan, AL MSA	16766	15005	2761	12958	16103	18234	24631	1906	364	288	6862	532	600	20292	37008	4972	1162	202
Dover, DE MSA	15103	13335	2530	11583	14051	15193	22107	1733	468	415	5407	628	635	18378	30772	5694	1216	197
Duluth--Superior, MN--WI MSA	25325	23177	3925	19443	27575	17472	41673	3688	805	273	204	297	1319	39312	52601	9454	2315	286
Dutchess County, NY PMSA	32911	32117	4697	28959	32350	28870	46718	5952	1909	1328	6171	3041	978	45444	61443	12732	5051	1034
Eau Claire, WI MSA	18050	16749	3277	13648	17554	15121	29332	2336	469	231	120	179	290	28780	39022	6599	1245	210
El Paso, TX MSA	78993	67524	15521	57065	63124	118796	91908	8028	1821	1526	4533	98188	1774	23333	183353	17071	3899	837
Elkhart--Goshen, IN MSA	21386	19464	3791	16525	19475	25816	30030	2248	588	463	1685	2721	450	29906	42466	8975	1758	371
Erie, PA MSA	34922	31053	5892	26114	34696	29648	54017	4425	1104	365	3274	1126	662	51374	74769	11596	2517	415
Eugene--Springfield, OR MSA	40769	37037	7089	31261	38623	28734	62599	6559	1861	1363	610	2269	2932	59663	85373	14394	3215	671
Evansville--Henderson, IN--KY MSA	32155	27176	4929	23668	33112	25634	49520	3823	996	322	2836	316	446	47063	63293	11073	3004	548
Fargo--Moorhead, ND--MN MSA	14569	14623	3338	11211	11469	8474	24093	3361	485	300	169	184	548	23730	31820	5429	1257	264
Fayetteville, NC MSA	33866	33819	7938	26467	23832	27898	58023	4565	917	1565	23531	3633	2619	32010	76595	12110	2610	400
Fayetteville--Springdale--Rogers, AR MSA	36521	34765	6778	28771	33139	37346	54322	5086	1198	825	649	3401	2190	54112	81676	11724	2449	608
Fitchburg--Leominster, MA PMSA	17431	15418	2578	14129	16358	16831	24792	2434	615	499	802	1853	581	24507	33243	7226	1897	248
Flagstaff, AZ--UT MSA	13827	12607	2774	11117	9167	12182	18760	2541	700	208	250	2319	6561	14323	29397	4510	1195	213
Flint, MI PMSA	29215	24307	4968	21376	26232	29409	44741	2160	548	379	18975	1074	1534	27847	59589	8338	2888	408
Florence, AL MSA	18281	15675	2693	13571	19753	20223	25182	2005	554	88	4388	297	278	24726	38833	5444	1282	280
Fort Collins--Loveland, CO MSA	28561	27150	6224	22547	19410	14697	40711	7305	1933	732	289	3569	1207	41930	54547	11352	3350	866
Fort Lauderdale, FL PMSA	207296	177410	27571	159785	225976	180293	280175	35085	8927	8986	74259	54314	11470	198399	388075	75415	21159	5567
Fort Myers--Cape Coral, FL MSA	56743	51503	5987	38060	96148	48707	84130	8548	2236	717	6267	7715	1309	77680	113883	20732	4576	1495
Fort Pierce--Port St. Lucie, FL MSA	41684	36880	4361	27898	68822	38152	60300	5883	1525	525	8489	4579	1103	54137	84440	13436	3272	1186
Fort Smith, AR--OK MSA	20550	18519	3304	16103	19921	24158	30064	2006	400	779	1339	1569	1616	28538	46173	6039	1121	282
Fort Walton Beach, FL MSA	20579	19758	3471	16428	20800	13774	32835	3489	1009	1086	3527	1566	1243	27979	42464	7530	2015	481
Fort Wayne, IN MSA	55223	49190	9158	43324	50144	45677	85978	7065	1793	1004	7095	2537	1160	78636	106871	22436	5502	928
Fort Worth--Arlington, TX PMSA	198125	178859	35608	163103	144122	197999	265604	35523	7125	10805	40780	53507	7560	220679	375859	75666	22169	5227
Fresno, CA MSA	105160	95486	20829	79374	85947	157933	128022	11455	2522	12997	10031	70968	7373	76897	237224	27228	7683	1547
Gadsden, AL MSA	13174	11129	1865	9602	14881	15342	18524	1095	311	81	2998	259	262	17694	28448	3802	869	138
Gainesville, FL MSA	29073	25056	7074	18739	21145	16744	40489	5417	2076	1766	9999	2477	1200	33162	62070	7990	2054	573
Galveston--Texas City, TX PMSA	29883	27208	4640	24651	27099	28357	41980	4718	1232	1135	8369	7747	973	32612	55738	11125	3914	835
Gary, IN PMSA	78268	67625	12635	59796	73266	70714	118305	9002	2294	1370	29729	12390	1895	85660	150803	26193	9907	1360
Glens Falls, NY MSA	14986	14086	2011	12353	16800	13834	22921	1937	585	115	555	332	328	23508	32106	5551	1103	220

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Goldsboro, NC MSA	13865	12483	2285	10888	12966	15193	20206	1631	319	257	9145	864	323	13855	31063	4109	840	161
Grand Junction, CO MSA	14052	12428	2294	10217	15182	11379	21140	2081	501	96	103	2106	552	19777	29975	4338	1064	222
Grand Rapids--Muskegon--Holland, MI MSA	116529	105298	21283	91575	95565	99889	171577	19052	4034	3160	16555	10389	3731	159215	225241	45447	12949	2271
Greeley, CO PMSA	20774	19747	4166	16732	15593	21888	30850	2899	584	293	177	7901	703	25769	43013	7972	1984	351
Green Bay, WI MSA	26833	25341	4648	22495	22123	20862	42754	4756	665	892	512	1361	1425	40566	50864	12292	3001	523
Greensboro--Winston-Salem--High Point, NC MSA	157624	137285	24582	123182	147840	155583	213954	25806	4957	3142	57645	10930	3639	188506	312274	58056	13204	3096
Greenville, NC MSA	17633	14224	3581	11938	13669	16461	23017	2692	648	287	11314	732	370	16864	36118	5460	1127	257
Greenville--Spartanburg--Anderson, SC MSA	100234	87088	15915	77160	95057	109524	132117	14688	3223	1797	36374	4277	1717	123145	203623	34896	8150	1685
Hagerstown, MD PMSA	16125	14393	2224	12707	17605	16465	24439	1531	469	162	1507	244	261	24079	32627	6127	1422	224
Hamilton--Middletown, OH PMSA	41015	36251	7721	30891	34132	33431	61561	6044	1470	1189	4202	727	797	59792	77097	15510	4880	927
Harrisburg--Lebanon--Carlisle, PA MSA	79994	69319	11768	61443	82181	68123	118389	10944	2787	1576	8369	2743	1391	114770	154307	31881	7508	1275
Hartford, CT MSA	89720	75935	12396	68794	93730	78887	109266	16957	5401	4429	19058	15950	3380	103493	151554	36113	12155	2807
Hattiesburg, MS MSA	14299	11582	2821	9771	11496	12474	19527	2201	464	201	6283	294	215	16362	30659	3742	836	192
Hickory--Morganton--Lenoir, NC MSA	42354	38797	6553	34011	41853	56071	58051	4360	874	1489	5736	2186	706	60327	91885	15574	2351	523
Honolulu, HI MSA	106159	101060	18777	82481	106049	80804	157187	21404	4677	100868	4602	10333	48036	37969	209006	42602	12190	2291
Houma, LA MSA	12083	10981	2296	9577	9206	18643	15632	953	177	211	3794	316	1614	14744	26726	3759	845	134
Houston, TX PMSA	485412	445630	92678	403880	320903	586114	580374	88503	20150	47065	166436	221511	15297	393685	955115	165258	51094	15068
Huntsville, AL MSA	42414	37244	6818	34095	36299	35566	55069	8818	2062	1005	17517	1225	2016	50070	81401	13993	5005	1117
Indianapolis, IN MSA	196861	171380	31912	156314	168925	166294	273165	34357	7988	3828	49334	6552	4154	260297	359194	78543	23143	4691
Iowa City, IA MSA	13889	12907	3788	9455	8033	5743	19333	3733	1081	808	499	569	272	20863	27465	5575	1333	306
Jackson, MI MSA	19237	18129	3011	15859	18749	17128	31190	2365	510	163	2394	624	544	28599	38744	7697	2048	303
Jackson, MS MSA	55009	45116	10124	40385	42233	53275	68992	9452	2114	535	47732	739	859	45570	111371	17105	4071	955
Jackson, TN MSA	13676	11209	2276	9892	12558	14369	17993	1794	423	165	7860	160	237	14428	28270	4244	832	217
Jacksonville, FL MSA	136370	117996	21786	108349	117300	116046	195539	21648	4744	5928	54123	7992	4460	156736	262164	50764	13024	2992
Jacksonville, NC MSA	14564	19818	5704	10410	9914	11850	33303	1545	324	644	5931	2209	1034	21064	42396	4802	945	134
Jamestown, NY MSA	17548	15525	2736	13164	18648	16781	26889	1688	560	96	536	849	393	26363	38199	5699	1146	167
Janesville--Beloit, WI MSA	18187	16787	2789	14894	17580	15594	29549	2152	488	220	1103	830	358	27485	34240	8085	2151	307
Jersey City, NJ PMSA	76744	69128	14501	58600	64189	97496	86814	13984	3194	13621	16574	50034	4953	47008	154919	26196	7740	1569
Johnson City--Kingsport--Bristol, TN--VA MSA	40731	35497	5863	30941	44205	43470	56692	5035	1246	246	1882	581	562	61839	87969	12367	2615	578
Johnstown, PA MSA	29541	27435	4297	21939	37205	29467	48593	2546	536	125	1236	342	230	46677	70093	8337	1386	190
Joplin, MO MSA	19233	16945	3182	14179	19762	18858	29425	1989	467	249	300	681	1291	28461	43213	5634	979	202
Kalamazoo--Battle Creek, MI MSA	55700	49326	9678	42451	50597	44595	85272	7800	1955	1193	7808	2709	2373	77261	110407	20754	5373	952
Kankakee, IL PMSA	12799	10762	2083	9448	12142	11726	19417	1207	368	184	3364	819	209	16199	24712	4774	1245	177
Kansas City, MO--KS MSA	205719	180929	32945	163947	181802	156144	287651	40111	9063	6090	45370	15179	7597	265958	372627	85898	24188	4906
Kenosha, WI PMSA	17900	16354	3028	14360	15871	15824	27775	2396	526	303	1039	1674	495	25928	33988	7260	2304	301
Killeen--Temple, TX MSA	35263	34952	8588	25891	26937	29796	60490	4282	968	1812	12781	8237	1997	38437	81271	11503	2437	477
Knoxville, TN MSA	74217	63858	11658	56467	71739	66200	101084	11931	3174	1393	9287	987	1690	106122	152465	23341	6041	1394
Kokomo, IN MSA	12376	10968	1863	9786	12165	10569	19769	1367	321	123	1010	224	247	18454	23137	4238	1783	285
La Crosse, WI--MN MSA	13609	11664	2720	9339	12084	7607	21594	2174	548	300	279	113	354	20522	27103	5118	1004	228
Lafayette, LA MSA	30138	26185	5588	23075	23490	33949	38923	4619	904	565	12162	723	322	36752	64291	8305	2444	525
Lafayette, IN MSA	22304	21413	6047	14467	16871	14041	37582	3198	1043	1628	692	1596	587	33124	48808	7330	2030	335
Lake Charles, LA MSA	22254	19524	3910	16461	20964	22954	32422	2680	540	171	9797	452	439	26777	47073	6479	1997	343
Lakeland--Winter Haven, FL MSA	60195	53449	8354	43007	77809	69244	84862	6511	1591	1315	14760	7457	1796	74943	129292	19384	4174	834
Lancaster, PA MSA	56722	50358	9216	43019	56792	61538	77812	7956	1688	1458	2333	3943	911	83092	110983	22580	5249	986
Lansing--East Lansing, MI MSA	55650	48740	10470	42715	42942	35675	85695	8847	2503	2143	6127	3059	2126	77106	102815	21932	7181	1011
Laredo, TX MSA	21078	18262	4691	15012	14313	41578	19900	1471	464	170	70	32587	111	1684	51763	3554	842	143
Las Cruces, NM MSA	19867	18583	4137	14440	17782	27791	24119	2555	782	240	482	20447	812	11662	47560	4506	1204	237
Las Vegas, NV--AZ MSA	160182	156630	28182	133425	144232	173795	245086	20065	4532	17424	28155	54270	11201	170476	326987	63222	17048	3412
Lawrence, MA--NH PMSA	32115	27246	4833	25846	27400	30664	38161	6039	1823	1738	613	9622	814	38391	57978	10789	3683	1182
Lexington, KY MSA	33245	29507	6802	25163	23896	23011	43589	7145	2235	1448	8557	1529	978	42963	65462	11172	3333	877
Lima, OH MSA	18697	17310	3049	14667	18872	15428	32281	1699	412	130	2599	376	481	27601	38840	7009	1719	247
Lincoln, NE MSA	30522	28487	6854	22675	22333	16857	46336	7007	1456	1273	1405	1372	1096	45601	60443	12786	2796	621
Little Rock--North Little Rock, AR MSA	72753	63604	12708	55367	63935	63047	104009	11508	2654	1068	27807	1927	1956	89360	148080	25346	6002	1236
Longview--Marshall, TX MSA	21287	18572	3707	15543	20633	21854	30877	2476	572	250	9260	1998	549	23926	45466	6418	1541	328
Los Angeles--Long Beach, CA PMSA	1120109	1021556	213377	882436	874374	1507306	1258090	189890	46694	281315	202769	767129	67883	627038	2318550	325318	110018	31033
Louisville, KY--IN MSA	116926	99366	17062	90711	113811	99285	156966	19582	5524	2540	28327	2511	3138	153820	219511	42664	11845	2881
Lowell, MA--NH PMSA	34630	31248	5312	29833	27442	30280	46222	6577	1762	4956	1267	3138	1439	46458	60033	14479	4889	1113
Lubbock, TX MSA	29833	26458	6391	21082	23870	28128	41588	4726	1105	727	3918	11844	568	32139	64453	8962	2086	486
Lynchburg, VA MSA	27392	23511	4158	19967	29902	28023	37834	3628	861	358	9521	462	564	34442	57090	8910	1951	414
Macon, GA MSA	40279	33251	6502	30537	34762	41702	54357	4983	1243	738	29035	1274	796	37043	79387	13865	3525	573

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Madison, WI MSA	52764	49589	10060	43156	39873	27947	74029	13112	3732	3029	2781	2668	1498	78207	93402	25020	6799	1458
Manchester, NH PMSA	13380	11993	2201	10246	13191	12051	19176	2274	425	561	431	722	363	19687	26163	5561	1238	209
Mansfield, OH MSA	15394	14965	2404	12460	16798	16053	25557	1405	290	130	2712	161	447	22973	33863	5615	1163	216
McAllen--Edinburg--Mission, TX MSA	62088	55414	13881	43190	48584	126240	58248	4876	1136	790	711	89241	549	12030	156775	9895	2021	455
Medford--Ashland, OR MSA	22690	19861	3130	16946	26612	18216	33547	3448	863	399	185	1935	1377	32543	47533	6924	1869	404
Melbourne--Titusville--Palm Bay, FL MSA	60840	55197	7355	45256	83516	44695	91828	10186	2662	1968	8781	4215	2271	83837	121603	21576	6171	1331
Memphis, TN--AR--MS MSA	122430	102094	20787	94564	95968	115951	158537	19946	4986	4157	101356	4104	2435	101412	232431	43410	11387	2823
Merced, CA MSA	22551	21506	4610	17437	18642	37527	28595	1832	343	2718	1446	16697	1888	16308	52687	6004	1550	298
Miami, FL PMSA	281224	239827	44339	208297	282454	379227	313114	36189	12513	7068	99110	271878	9665	88303	609819	71455	18580	5286
Middlesex--Somerset--Hunterdon, NJ PMSA	144503	129244	21496	121310	125766	101119	177777	35578	10414	28544	19717	24843	4568	164951	227613	56530	25065	6995
Milwaukee--Waukesha, WI PMSA	184221	160905	29553	142940	171291	152121	251449	35494	7544	5300	45472	16659	5577	231619	332996	76106	21535	4464
Minneapolis--St. Paul, MN--WI MSA	340663	312756	57765	288613	259432	219386	484075	80976	16286	20800	27739	15945	12994	488337	574049	161336	47730	10691
Mobile, AL MSA	67427	56186	10814	49537	64583	69832	91739	8394	2043	1440	33978	1404	2196	73699	139550	20175	5015	1081
Modesto, CA MSA	51659	46786	9483	40478	42637	68402	70061	5249	1102	3962	1976	23413	5076	51793	109155	16494	4526	882
Monmouth--Ocean, NJ PMSA	141563	120782	17045	109667	163951	102306	192528	28143	6846	6811	14480	11967	3207	190922	237168	49927	20816	5923
Monroe, LA MSA	18831	14630	3396	12649	16499	18671	24173	2540	607	237	12090	294	256	18165	39329	5051	1014	272
Montgomery, AL MSA	41102	36144	7074	31224	37499	41526	53812	6436	1851	528	29369	704	931	40571	85009	13180	3382	799
Muncie, IN MSA	15386	13337	3051	10269	15039	13158	23351	1698	588	124	1708	258	285	22396	32502	4835	1199	195
Myrtle Beach, SC MSA	25062	22465	3737	18772	28571	22748	37692	3403	768	232	7337	920	555	32977	53230	8242	1810	425
Naples, FL MSA	31838	29516	3596	21305	53929	28072	42326	6565	1623	398	2406	8945	713	40569	59114	11236	3227	1565
Nashua, NH PMSA	14044	12655	2124	12089	11318	10158	19116	3113	730	720	247	869	334	20705	23164	6329	2023	512
Nashville, TN MSA	153171	135618	26555	122889	121287	141340	204359	28892	5992	3927	42499	7094	4737	197309	290958	59734	15568	3672
Nassau--Suffolk, NY PMSA	339496	299370	44847	280328	337732	231524	441779	69529	25144	21900	49665	49533	9513	428383	545981	120487	55269	17846
New Bedford, MA PMSA	22442	19130	3327	16396	24624	29742	27533	2578	633	351	1051	1614	2848	30152	45564	7573	1913	312
New Haven--Meriden, CT PMSA	45511	38388	7243	34139	42982	36773	58203	7499	3067	2218	10375	7607	1636	52386	79588	17755	5851	1220
New Orleans, LA MSA	156181	131043	25584	118556	136792	165459	200639	22636	5680	5968	108791	11479	4275	138551	321065	47116	12375	2678
New York, NY PMSA	1199234	987472	195720	895780	1054422	1326622	1282380	211282	71218	206361	481333	443940	78519	810323	2246492	365141	127232	36792
Newark, NJ PMSA	253501	216137	35486	206495	229595	215393	303953	54031	15081	19437	94754	49323	9296	252178	419776	92548	35762	11217
Newburgh, NY--PA PMSA	39631	36889	6267	34143	32769	35616	58239	5756	1829	1140	4922	6180	1093	53177	72931	15327	5714	1123
Norfolk--Virginia Beach--Newport News, VA--NC MSA	187346	169542	35075	146474	150634	148250	280615	30011	7609	10741	113523	9054	7603	189595	372192	71495	17989	3601
Oakland, CA PMSA	293300	261174	46392	244199	239774	236267	353537	69073	19299	95972	67780	79624	24817	239392	485166	110665	44741	13619
Ocala, FL MSA	33757	29352	3722	21765	55680	33745	51339	3076	870	450	7096	2872	960	43953	75243	9387	1768	449
Odessa--Midland, TX MSA	28238	24547	4833	21376	25497	35288	36171	3837	631	252	3013	14488	524	27760	59658	8275	2157	526
Oklahoma City, OK MSA	109631	98197	20692	82958	92773	95448	154949	18660	4450	6143	22835	11551	13751	130485	226341	37669	9271	1963
Olympia, WA PMSA	25587	23678	4431	20711	22153	18138	37419	4852	1370	2028	992	1696	2467	35582	47779	10753	3461	479
Omaha, NE--IA MSA	70461	62637	12615	55659	56242	50565	99038	15041	3013	2261	12564	6711	2434	92533	133395	28076	7291	1634
Orange County, CA PMSA	335238	311702	60161	276017	265612	351487	409708	71272	16274	94213	9668	159097	18469	293640	623532	115218	43712	13450
Orlando, FL MSA	201622	183847	32367	160686	192931	175785	284856	37453	7697	9825	47941	51348	8961	224023	407118	72135	18344	4670
Panama City, FL MSA	18422	16288	2661	14460	19103	16400	27938	2209	627	648	3746	496	789	24791	38663	6136	1402	285
Pensacola, FL MSA	50127	47074	8556	39246	49789	44557	75853	7728	1798	1730	16254	2114	2882	63778	108184	16283	4213	915
Peoria--Pekin, IL MSA	42987	38298	6838	32716	44016	33460	66904	6212	1380	724	5275	949	771	62557	82611	16273	4954	822
Philadelphia, PA--NJ PMSA	640043	543968	93805	493739	628646	536841	831345	118904	32132	36751	207782	43869	16688	753263	1129299	242782	80526	18839
Phoenix--Mesa, AZ MSA	360146	339174	66445	280828	329535	349578	496193	65685	15247	15314	23662	135704	21288	413040	704601	137791	38829	10084
Pittsburgh, PA MSA	298091	252139	39334	218649	352980	222819	432651	47428	11945	5387	38291	3369	4723	424190	598369	95345	26558	5478
Portland, ME MSA	30639	26539	4218	25537	27493	17927	41195	7282	1783	776	714	471	874	46024	56812	12323	2983	774
Portland--Vancouver, OR--WA PMSA	216809	198744	36635	182426	168988	158507	306542	45942	10443	19547	11701	22711	14199	292902	400221	88499	26433	6041
Providence--Fall River--Warwick, RI--MA MSA	131933	110310	19865	98045	132749	144341	165377	19202	4903	5114	8009	15175	6793	174267	255216	47007	12831	2106
Provo--Orem, UT MSA	40549	37058	12558	24269	21659	26707	63502	7572	1418	829	242	3992	1537	59736	88016	11553	3606	703
Pueblo, CO MSA	16793	14710	2729	12097	18230	16404	24874	1991	459	261	605	10010	593	15865	36986	5061	1067	157
Punta Gorda, FL MSA	19539	16835	1548	10764	41409	16863	29357	2316	684	220	1675	909	429	28070	40520	6436	1285	366
Racine, WI PMSA	22388	19829	3047	18443	21986	19220	33642	3313	654	116	3043	1788	367	31249	40056	9430	3047	464
Raleigh--Durham--Chapel Hill, NC MSA	146641	131466	27131	120851	98858	114337	175532	37693	9279	7066	63747	12738	4183	164108	266495	56754	17822	4748
Reading, PA MSA	46211	40746	6804	35782	48226	45594	67657	5791	1313	748	1999	4458	778	66514	90030	17870	4588	793
Redding, CA MSA	19993	17703	2668	15716	22214	16437	31394	2592	553	640	170	1464	2062	28127	41969	6169	1739	340
Reno, NV MSA	40198	39024	6837	34217	34964	35207	60513	7194	1517	3240	1519	10025	4107	50191	77738	16877	4661	1082
Richland--Kennewick--Pasco, WA MSA	21551	20730	4136	17414	17847	25016	29269	3208	872	944	446	7263	888	26971	44514	7244	2607	458
Richmond--Petersburg,	125832	106724	19038	101409	106191	106860	158477	26015	5947	4767	71275	4313	3869	129835	224110	51495	14007	3185

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
VA MSA																		
Riverside--San Bernardino, CA PMSA	364383	341117	67432	285299	323761	443263	517072	40800	10038	29944	50942	206706	23808	314370	764000	116707	37768	7475
Roanoke, VA MSA	31000	25544	4158	23423	32636	27303	42631	4699	1068	417	7503	534	759	40499	61105	10780	2330	553
Rochester, MN MSA	14764	13377	2310	12409	12436	9623	21182	3151	756	782	390	336	423	22202	25519	7235	1697	410
Rochester, NY MSA	127276	111391	19401	101104	118838	100490	177354	21651	6495	4049	21405	7539	3945	171455	241093	49180	14006	2529
Rockford, IL MSA	38157	34753	5889	30758	36990	35976	57649	5126	1104	718	5613	3851	793	52408	72096	15849	4462	762
Rocky Mount, NC MSA	18149	14996	2476	14275	17256	21781	24385	1890	308	55	14002	690	293	16158	38087	5772	1082	205
Sacramento, CA PMSA	197467	174200	31321	157219	178256	159428	278573	36207	7950	34216	27001	40016	17235	212279	359735	74650	26190	5123
Saginaw--Bay City--Midland, MI MSA	49467	43953	7634	38990	47998	42214	78748	5785	1235	715	7236	2746	1229	69199	99778	16597	5072	910
St. Cloud, MN MSA	20193	19580	4072	15616	17823	17292	33767	2627	503	432	175	303	314	32655	43129	8295	1502	271
St. Joseph, MO MSA	12490	11509	2185	9432	12546	10588	20319	1535	314	96	628	375	282	19162	27037	4358	866	165
St. Louis, MO--IL MSA	324114	278238	50296	249368	307801	282833	445067	52545	13561	8027	106194	7339	7464	407024	604465	123304	34848	7364
Salem, OR PMSA	32826	31123	5936	25406	31901	34150	48372	4636	1025	1150	444	7597	2046	43869	68946	12033	3073	534
Salinas, CA MSA	32179	31886	6463	25863	27294	44285	39371	4905	1497	5120	3504	20902	2536	25087	67919	10830	3535	819
Salt Lake City--Ogden, UT MSA	147786	143450	34290	112778	104740	122792	225053	26644	5879	6939	2971	23413	8292	209291	300795	57305	15657	3289
San Antonio, TX MSA	185972	164164	34034	141487	156730	200250	244905	27436	7189	5441	25013	146286	5934	126816	386219	57764	15692	3794
San Diego, CA MSA	331213	317704	64342	261246	285807	289501	458641	66193	17341	59782	34787	133227	25748	323337	658897	117214	38403	10072
San Francisco, CA PMSA	222571	208602	33725	187202	210826	168688	236294	69596	18710	98434	21870	57483	16551	197124	356562	85939	35024	13794
San Jose, CA PMSA	199233	194224	35592	172180	155934	169289	224211	54541	17076	102103	10707	71211	13788	160048	325918	70070	33921	13657
San Luis Obispo--Atascadero--Paso Robles, CA MSA	29889	29833	5730	22639	31802	22768	47160	5436	1352	1893	1174	7689	1925	39132	63359	9714	3376	812
Santa Barbara--Santa Maria--Lompoc, CA MSA	48213	45208	9484	35351	46278	46453	63503	9061	2579	3847	1866	23937	2621	49285	96944	15240	5288	1584
Santa Cruz--Watsonville, CA PMSA	31573	29640	5920	26166	23446	27885	40038	7158	1857	2395	489	13224	2049	35060	59712	10497	3832	1372
Santa Fe, NM MSA	18516	16440	2604	15609	16660	14660	21185	3988	1679	342	278	12868	1844	15190	33961	6680	2015	713
Santa Rosa, CA PMSA	56388	51668	8449	47151	52111	45687	77599	11534	2727	3326	1372	13665	4043	71179	99172	22742	7838	2018
Sarasota--Bradenton, FL MSA	79961	66994	7465	50418	138512	56566	113771	13386	3698	1321	7676	6526	1459	109799	149968	28471	6865	2401
Savannah, GA MSA	28824	25272	4954	21083	28572	27963	37884	4999	1185	780	22579	986	701	25983	58948	9210	2374	653
Scranton--Wilkes-Barre--Hazleton, PA MSA	81109	71051	11180	60265	96248	67922	125307	9923	2577	807	1762	1183	759	125022	171945	26440	5872	1074
Seattle--Bellevue--Everett, WA PMSA	285992	266029	46533	247978	222460	175035	383984	76601	17206	52287	22233	22043	23875	365628	480690	124939	44634	10601
Sharon, PA MSA	15071	13571	2256	11194	17546	12827	24169	1745	405	133	889	135	202	23153	33085	5051	998	117
Sheboygan, WI MSA	13273	12697	2030	11074	13310	11117	21630	1928	349	495	334	401	206	20775	25447	6385	1357	233
Shreveport--Bossier City, LA MSA	49089	41503	8055	36134	46975	51368	67629	6086	1412	660	32605	1423	1258	48245	103532	14613	3398	745
Sioux City, IA--NE MSA	12660	10775	2113	9170	12478	10880	18856	1770	319	403	292	1149	446	17797	25821	4683	886	136
Sioux Falls, SD MSA	14814	14010	3021	11531	11793	10220	22680	3164	526	247	352	420	1042	22668	30846	5984	1121	252
South Bend, IN MSA	32931	28688	5812	23518	32855	28478	47251	4691	1384	768	6201	2029	930	43961	66446	11603	2832	550
Spokane, WA MSA	51384	46581	8915	39998	46811	35189	79657	8568	2152	2023	1486	1988	3479	75317	106616	17966	4380	888
Springfield, IL MSA	14347	11840	2157	10564	14383	9321	19053	2911	804	315	3534	273	280	18642	26196	5527	1575	270
Springfield, MO MSA	40973	36486	7625	30101	37576	34318	62062	5979	1313	488	1091	926	1954	61818	89535	12737	2456	608
Springfield, MA MSA	76904	63441	13068	54471	73164	64381	105304	11182	3504	2707	8035	12515	2281	96307	147246	28691	6942	1174
Stamford--Norwalk, CT PMSA	44038	38208	5021	37164	45388	27269	41101	13854	4931	3044	6413	7280	1461	53869	62840	14003	6327	4100
State College, PA MSA	17237	16830	4251	12005	14131	10911	27948	2801	981	1048	824	337	335	26751	39442	5458	1141	272
Stockton--Lodi, CA MSA	64185	59317	11870	49870	56413	85505	88302	6584	1342	13390	7485	29221	5378	55035	134781	20416	6419	1221
Sumter, SC MSA	12635	11297	2283	9696	10936	15954	17350	1318	274	243	12028	344	281	10102	28794	3641	695	103
Syracuse, NY MSA	89812	79983	14109	70619	86387	74417	131811	13048	4004	1883	8246	2345	3236	130829	180061	33211	8451	1467
Tacoma, WA PMSA	82961	77612	14658	69455	65010	65648	131799	12532	2776	9780	10737	6791	9208	105299	159104	34225	10132	1673
Tallahassee, FL MSA	36873	31764	8251	25961	25195	26920	47566	7425	2387	1286	24809	2331	781	34764	74835	12090	3087	699
Tampa--St. Petersburg--Clearwater, FL MSA	311334	265455	39184	223471	400985	269252	440160	47603	11270	10953	53792	46785	9740	384029	618534	105687	25530	6710
Terre Haute, IN MSA	18598	16974	3268	13525	19748	16949	29430	1805	658	232	1217	332	367	28361	41031	5817	1362	210
Toledo, OH MSA	76817	66230	13472	56666	70270	62261	116209	10302	2562	1415	15920	4421	2283	101338	150853	27309	7633	1309
Topeka, KS MSA	21516	18034	3231	16181	21242	14950	31012	3663	917	276	3261	1903	1098	27952	41128	8597	1782	341
Trenton, NJ PMSA	44262	38185	6562	35232	41077	38330	51141	8994	3317	4110	14924	6602	1415	47190	74003	16885	6285	1776
Tucson, AZ MSA	105782	92151	17657	76790	108745	89919	144707	17177	5315	3911	5161	44650	10020	109017	218558	32947	8443	2204
Tulsa, OK MSA	85024	75238	14377	66466	74869	72977	121134	14521	3077	1621	14978	6182	17093	102473	169824	30214	7946	1670
Tuscaloosa, AL MSA	21145	17953	4325	14736	17047	19791	28981	2893	888	411	11036	349	490	23387	43700	6650	1719	299
Tyler, TX MSA	21819	18440	3566	15606	22307	20790	29989	3173	726	333	7724	2882	493	24584	44100	6874	1831	417
Utica--Rome, NY MSA	36942	34360	5372	29076	41806	37643	55454	4251	1288	530	2554	1374	750	56021	80599	13301	2477	408
Vallejo--Fairfield--Napa, CA PMSA	61594	57631	10452	50996	52900	56213	90464	10192	2227	12774	12912	17387	5857	58676	113169	24897	8548	1732
Ventura, CA PMSA	87582	81756	14812	73831	71219	91873	114161	15890	3994	9469	3514	46219	4302	84802	161744	31029	11813	3409
Vineland--Millville--Bridgeton, NJ PMSA	17086	16851	2718	14314	17440	24508	24471	1463	339	238	6359	4389	760	18743	38142	5867	1543	196
Visalia--Tulare--Porterville, CA MSA	40114	38232	8370	30297	34077	72378	47484	2983	671	2403	1084	31945	2861	30435	96578	9157	2515	518
Waco, TX MSA	26375	22576	5031	17987	25329	26990	38077	2929	696	363	6267	6283	502	29781	56262	8221	1620	365

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Washington, DC--MD--VA--WV PMSA	584521	515512	92926	499814	424089	415720	638548	148458	55305	75174	296646	80998	27900	535974	884525	240218	98382	30726
Waterbury, CT PMSA	13316	11313	2226	9356	13909	15934	18155	1313	303	368	3645	3855	587	13497	26526	4946	1162	142
Waterloo--Cedar Falls, IA MSA	16149	13952	3178	10777	15846	10701	25700	2278	559	293	1798	339	323	23241	34068	5085	1223	212
Wausau, WI MSA	14850	14330	2328	12721	13818	13432	24516	1856	350	584	75	149	208	23865	30299	6646	1271	215
West Palm Beach--Boca Raton, FL MSA	147863	126717	16645	99969	223532	116934	196314	28169	7497	3918	35603	26825	4929	171475	267067	51565	14851	6125
Wichita, KS MSA	64764	58045	10876	50461	59755	51707	95477	11280	2310	2956	8925	6099	3409	85866	124351	26276	6892	1165
Wichita Falls, TX MSA	15578	15512	3466	11133	15197	15090	24934	2160	446	630	2939	2988	809	19985	36890	4827	915	194
Williamsport, PA MSA	15171	13793	2108	12099	16623	13690	24710	1531	350	82	407	105	177	23897	33332	5022	1044	144
Wilmington--Newark, DE--MD PMSA	62961	53434	9938	48779	56204	45023	84382	12341	3399	2890	21177	4568	1503	73932	105001	26129	8764	1946
Wilmington, NC MSA	30277	26544	4468	22380	34314	23463	43478	5708	1064	285	9191	1157	775	38935	61158	9976	2597	695
Worcester, MA--CT PMSA	36096	30544	5672	26572	36304	29665	46997	6626	1874	2485	2349	4451	1245	47186	66451	13633	4190	750
Yakima, WA MSA	24971	23666	4833	19272	22247	38668	31685	2340	615	681	287	13480	2866	25067	57414	7445	1592	307
Yolo, CA PMSA	21157	18390	4781	14703	15093	18152	26017	3970	1446	3888	745	7758	1848	20660	42077	6586	2162	502
York, PA MSA	47168	42369	6805	38706	45551	43856	71221	6110	1391	634	2548	1926	749	70836	90797	20130	4808	693
Youngstown--Warren, OH MSA	74909	66135	10799	56513	84353	68758	117813	8019	1697	616	13526	1955	1433	105282	157792	24630	6139	948
Yuba City, CA MSA	16031	14573	2821	12216	15206	20779	22413	1542	312	2430	724	4597	1674	17516	35227	4679	1265	229
Yuma, AZ MSA	18333	17292	3399	12484	22074	29122	23961	1249	376	239	678	14820	1004	14367	43946	4512	1047	189

Appendix H. Estimated Incidence of Nonreaders of Newspapers per City.

Table 19. Estimated Incidence of Nonreaders of Newspapers per City.

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Abilene, TX MSA	29376	23820	21669	25498	8793	16812	32930	4930	2242	760	2928	10861	1203	38849	45912	8162	2560	1248
Akron, OH PMSA	162784	133181	92282	160662	52081	77208	185391	32954	15216	4407	29385	3322	4686	245728	222813	58103	25775	11002
Albany, GA MSA	28226	21700	18177	26282	7743	20526	27943	4020	2062	368	25094	1011	409	23642	41463	7865	3486	1247
Albany--Schenectady--Troy, NY MSA	186925	153927	100498	187970	61344	84816	201842	38123	28836	7077	17261	8755	6213	292186	247101	71302	34867	11907
Albuquerque, NM MSA	162552	136701	99533	166063	46203	90057	169282	32961	22587	5294	5947	152490	33814	143535	236610	52006	22558	11274
Alexandria, LA MSA	29121	24066	18157	27314	9587	22907	30249	3588	1963	344	16805	1400	1191	33408	47303	6952	2561	1208
Allentown--Bethlehem--Easton, PA MSA	151623	125718	78717	149126	54752	86728	169143	26031	13988	4630	6017	22646	3848	235945	212276	53741	23356	9108
Altoona, PA MSA	31461	25574	17001	29344	11747	16677	39583	3640	1584	358	465	349	522	52885	49643	8875	2840	878
Amarillo, TX MSA	49519	40071	31918	46108	15215	30272	53004	8412	4363	2123	4379	19647	1872	64393	73865	14607	5953	2560
Anchorage, AK MSA	55248	49945	39884	64349	8793	23943	65301	12928	6962	5659	6253	7499	15968	72967	68189	22724	14278	6167
Ann Arbor, MI PMSA	109508	94871	78506	115939	23235	36104	111173	32553	24291	9926	15151	6029	5313	164741	132044	39778	28472	14889
Anniston, AL MSA	26649	21438	15915	24496	9105	19708	28333	2902	1944	234	8834	1089	1030	36088	41536	7610	2329	909
Appleton--Oshkosh--Neenah, WI MSA	79644	71741	49729	85055	23147	38334	100581	15556	5637	1869	911	2767	2159	138392	107766	37270	13581	4153
Asheville, NC MSA	54746	43933	28644	51345	20339	29318	56694	11579	6210	1175	5799	2971	1349	84562	80920	16648	5780	3302
Athens, GA MSA	36955	30900	34066	30879	8541	18838	38679	7801	5518	1703	11466	3338	865	49923	57129	10303	4035	2106
Atlanta, GA MSA	898927	759044	587212	978760	189184	496679	872606	243503	115879	61343	473104	134576	34744	984245	1143050	344219	176979	96049
Atlantic--Cape May, NJ PMSA	84485	68352	40048	83765	30952	51655	90565	14941	6736	6024	19425	17154	3413	108450	114949	29660	13869	5549
Auburn--Opelika, AL MSA	27055	22749	27253	21673	5642	12540	31527	4599	3551	1048	11755	962	841	34713	42272	7580	2900	1347
Augusta--Aiken, GA--SC MSA	103494	83619	63484	101657	29643	66746	108411	17229	9074	2975	60560	5889	3369	114634	151097	30773	14161	5993
Austin--San Marcos, TX MSA	259401	232744	207212	269997	52058	133899	250748	81219	40566	20073	36464	156873	11401	301822	347677	98112	48615	29400
Bakersfield, CA MSA	135359	119981	96329	136239	36793	128890	135686	15493	7356	9518	12084	120947	10910	132051	216526	35280	18410	7228
Baltimore, MD PMSA	591858	472330	310167	603716	180277	318809	573374	132254	87096	31786	277465	26080	21076	703139	722402	228835	122807	55124
Barnstable--Yarmouth, MA MSA	35725	27960	12121	32625	17419	10615	38549	9387	5588	399	868	841	2400	57027	44457	13899	6287	3103
Baton Rouge, LA MSA	138019	113407	97669	133979	34272	80408	149146	25084	13292	3996	76563	5413	3650	160832	201121	41512	20840	7908
Beaumont--Port Arthur, TX MSA	86159	74852	53355	83742	29359	59471	101069	11285	4358	3207	37687	15398	2829	104111	132578	25932	11792	4310
Bellingham, WA MSA	38970	33342	28920	36626	10854	16415	46940	8238	3812	2430	370	4376	6291	58795	57726	12900	5276	2244
Benton Harbor, MI MSA	37989	31210	20756	37075	13062	21314	43203	5776	3626	775	7827	2696	1506	55170	54271	12632	5280	2374
Bergen--Passaic, NJ PMSA	324074	264757	159865	331826	108956	173799	300449	87969	48139	52545	43377	126824	14698	378395	384416	114479	71740	47728
Billings, MT MSA	29454	24594	16607	30550	8758	11902	33843	7698	2458	256	191	2134	2570	47645	43106	9917	3619	1727
Biloxi--Gulfport--Pascagoula, MS MSA	71075	61383	46258	70938	21115	43184	83898	10255	5498	3333	29228	3812	2893	92415	109527	22570	8495	3220
Binghamton, NY MSA	60055	49054	32211	57443	21678	30887	68685	9244	6781	2643	2368	2268	1820	96524	88800	18690	7344	3186
Birmingham, AL MSA	193204	148558	112868	183233	57609	109916	190663	40882	19754	3420	111648	6657	4279	213989	261806	63101	27297	14162
Bloomington, IN MSA	31137	24643	32051	23275	6076	8993	33488	7400	6126	2311	1660	1081	1311	47888	47109	7794	3729	1762
Bloomington--Normal, IL MSA	36073	29643	26149	34305	9119	12464	40548	9880	4128	1300	2751	1676	985	57065	47013	13413	7033	2741
Boise City, ID MSA	92573	83358	64906	96700	24145	51092	106130	20350	8579	2589	682	20196	6075	146325	137589	31838	14127	6256
Boston, MA--NH PMSA	818689	657527	457664	819459	247066	331833	733453	246797	172067	81207	93797	105843	47626	1143248	956929	305315	183215	107319
Boulder--Longmont, CO PMSA	49901	45051	40685	50413	10900	16681	44712	19413	12452	3034	700	12082	2592	77017	64722	17568	10220	7707
Brazoria, TX	49956	48123	32494	57844	12856	36880	58400	8217	3537	2017	7811	27228	2220	64306	74201	17193	10531	3682

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Bremerton, WA PMSA	50443	47205	31362	56523	14173	20815	63790	11675	5269	4384	2637	4697	7578	78294	69455	20854	10432	3895
Bridgeport, CT PMSA	79553	63883	41016	78615	26907	47014	73985	17462	12201	3298	18309	27071	4496	95001	96893	28572	15958	9984
Brockton, MA PMSA	58671	48928	32419	62848	16280	29401	68382	11123	4866	1466	6739	5281	8227	85354	75970	23798	12050	3395
Brownsville--Harlingen--San Benito, TX MSA	72398	57069	51974	62664	21342	82753	54882	7335	4113	661	516	141219	667	22844	122475	12905	4579	2080
Bryan--College Station, TX MSA	35054	32413	46489	23803	6093	17010	40952	7304	5193	3150	6730	15160	1151	44281	59990	7992	3681	1969
Buffalo--Niagara Falls, NY MSA	277189	224667	140884	269805	99862	144298	304070	48800	32592	5960	51368	16295	11281	406521	391581	90043	43534	15546
Canton--Massillon, OH MSA	95437	78792	51443	92544	34021	51901	115317	13300	6433	803	10733	1727	2953	152053	138804	32723	12423	4468
Cedar Rapids, IA MSA	43206	36722	25003	43965	13630	15841	52686	10443	3645	951	1259	987	1076	72676	57947	17892	7290	2643
Champaign--Urbana, IL MSA	42488	37354	38521	36432	11014	14247	50112	9370	7641	5497	6473	2634	1570	62734	62306	15459	5957	2488
Charleston--North Charleston, SC MSA	103781	88147	68717	101721	30306	59062	107882	23277	12122	2598	60443	5620	3409	119997	151947	32952	13983	7819
Charlotte--Gastonia--Rock Hill, NC--SC MSA	343049	287517	208541	359065	91065	209277	346882	81259	31468	10062	127199	36935	10202	444505	464005	125797	55792	28986
Charlottesville, VA MSA	38813	31000	26642	36037	10664	18085	34379	10918	7670	2297	9533	1788	977	53956	52532	13308	5387	3435
Chattanooga, TN--GA MSA	103704	83359	57968	100009	34252	65908	106927	18674	9217	2210	27864	2853	2845	146958	149437	33360	12624	6341
Chicago, IL PMSA	1838467	1545143	1134582	1882366	513106	1081461	1756821	456085	254405	176281	595236	685157	68068	2012892	2329901	664365	390399	203683
Chico--Paradise, CA MSA	46963	40492	32497	40762	17370	26810	54832	8178	3682	2562	1098	11448	5602	68031	74776	12357	5678	2289
Cincinnati, OH--KY--IN PMSA	339087	278064	198792	339139	101546	191671	351946	71059	37430	8007	80158	7492	9045	496647	450169	124818	56602	28019
Clarksville--Hopkinsville, TN--KY MSA	28616	25820	23375	28675	6390	15188	35950	4826	2113	1229	10612	3472	1788	37626	44483	10649	3189	927
Cleveland--Lorain--Elyria, OH PMSA	529618	423560	269745	523970	179297	285282	565572	101146	55588	14837	163084	36770	15324	710752	705795	187780	88541	38409
Colorado Springs, CO MSA	111557	100405	78000	119980	26556	45327	130783	27188	15251	5889	12497	28752	8749	159421	157679	41113	19513	9120
Columbia, MO MSA	32279	26606	28433	28072	7121	11673	33461	8557	5898	1780	4168	1218	1354	48958	47880	10149	3810	1834
Columbia, SC MSA	126597	104059	84307	126679	31834	64644	129675	30609	15612	4201	70153	8314	3898	144438	175860	45670	18378	8102
Columbus, GA--AL MSA	41564	35657	31100	38126	12214	27069	46158	6270	3871	1513	33504	4192	2066	37832	64776	12351	4521	2179
Columbus, OH MSA	332343	274413	215096	335834	85936	154792	352016	83293	39221	17141	78306	14640	13716	472553	432322	129564	60635	25628
Corpus Christi, TX MSA	56781	49261	37441	58463	15383	40707	61118	8895	4654	1337	3006	65458	2056	49931	86284	16716	8594	3178
Dallas, TX PMSA	731159	645565	514365	794835	155350	496800	688947	190749	85083	61645	194758	385822	32137	793175	976980	265709	137450	84296
Danbury, CT PMSA	41632	35525	19460	48631	11324	18512	36045	14407	8623	2566	2382	6752	2132	62903	45442	14718	10800	8872
Danville, VA MSA	27051	20790	12339	25473	10336	22852	26923	2280	1507	196	14851	514	364	31347	41763	7402	2156	813
Davenport--Moline--Rock Island, IA--IL MSA	62360	50969	36867	59508	20531	31140	72282	11301	5194	1638	6186	8525	2165	93323	87666	21683	9415	3359
Dayton--Springfield, OH MSA	224297	181008	131726	213460	72922	114609	254147	37899	22383	4985	54047	6109	7634	322909	303914	79997	37098	14060
Daytona Beach, FL MSA	108431	90574	49172	95812	52376	60427	128273	15935	8598	2693	17561	16451	3641	157210	166800	32046	11355	5682
Decatur, AL MSA	32796	28032	18036	34319	10335	24512	36017	4516	1800	121	8652	1485	2564	47127	48753	10188	5235	1626
Decatur, IL MSA	27009	22241	15002	26270	9246	13549	33223	4016	1758	379	4773	517	477	41541	37780	9619	4173	1474
Denver, CO PMSA	439915	389149	282462	481801	108030	229177	437645	130080	60972	28266	44616	200806	24261	568394	555321	185559	91471	47501
Des Moines, IA MSA	86892	70958	53825	86776	24095	36335	94990	22884	8718	3605	7023	7366	2928	133531	112262	35962	14644	5954
Detroit, MI PMSA	1014700	832178	560367	1042770	303942	573862	1094777	186360	106242	45094	403824	66497	48793	1275348	1288385	341482	227627	103326
Dothan, AL MSA	31297	26388	18775	30986	9946	21577	35367	4313	1742	596	12224	1496	1382	41396	49345	8822	3423	1213
Dover, DE MSA	28193	23452	17207	27700	8678	17978	31743	3923	2236	857	9632	1764	1462	37492	41029	10103	3582	1184
Duluth--Superior, MN--WI MSA	47274	40761	26693	46494	17032	20676	59839	8348	3849	564	364	834	3034	80198	70135	16773	6818	1717
Dutchess County, NY PMSA	61434	56482	31939	69251	19981	34163	67082	13470	9124	2746	10993	8538	2250	92707	81924	22589	14874	6206
Eau Claire, WI MSA	33695	29456	22285	32636	10842	17893	42118	5286	2243	477	214	505	668	58711	52029	11708	3666	1261
El Paso, TX MSA	147454	118749	105544	136461	38988	140575	131970	18169	8704	3155	8076	275682	4081	47600	244470	30288	11482	5026
Elkhart--Goshen, IN MSA	39921	34230	25784	39516	12029	30549	43121	5088	2813	958	3001	7639	1036	61009	56622	15924	5178	2230
Erie, PA MSA	65188	54612	40069	62447	21430	35084	77563	10016	5278	754	5833	3162	1523	104804	99692	20573	7414	2495

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Eugene--Springfield, OR MSA	76102	65134	48206	74755	23855	34001	89886	14845	8893	2818	1088	6371	6743	121713	113831	25539	9468	4028
Evansville--Henderson, IN--KY MSA	60022	47793	33520	56598	20452	30334	71106	8652	4761	666	5051	889	1026	96009	84391	19646	8847	3288
Fargo--Moorhead, ND--MN MSA	27197	25716	22698	26808	7084	10028	34595	7607	2320	621	302	516	1261	48410	42427	9633	3703	1585
Fayetteville, NC MSA	63217	59474	53978	63292	14720	33013	83315	10333	4385	3236	41915	10202	6024	65302	102126	21485	7687	2404
Fayetteville--Springdale--Rogers, AR MSA	68172	61139	46097	68802	20468	44193	78002	11510	5725	1706	1157	9549	5038	110390	108901	20800	7212	3649
Fitchburg--Leominster, MA PMSA	32538	27115	17530	33788	10103	19917	35598	5509	2939	1032	1429	5205	1338	49994	44324	12821	5585	1489
Flagstaff, AZ--UT MSA	25811	22171	18868	26585	5662	14415	26938	5751	3346	430	446	6513	15090	29220	39196	8002	3520	1279
Flint, MI PMSA	54535	42747	33787	51117	16202	34800	64244	4888	2622	784	33800	3017	3530	56808	79452	14793	8504	2452
Florence, AL MSA	34125	27566	18317	32452	12200	23931	36159	4539	2647	183	7817	835	639	50442	51778	9659	3775	1682
Fort Collins--Loveland, CO MSA	53314	47746	42328	53917	11989	17392	58457	16534	9239	1514	515	10022	2778	85537	72729	20141	9866	5196
Fort Lauderdale, FL PMSA	386954	311997	187482	382096	139573	213346	402303	79404	42655	18571	132275	152498	26382	404734	517433	133801	62302	33403
Fort Myers--Cape Coral, FL MSA	105921	90575	40711	91014	59385	57637	120803	19347	10686	1483	11164	21663	3012	158468	151844	36782	13475	8974
Fort Pierce--Port St. Lucie, FL MSA	77811	64858	29659	66712	42508	45146	86585	13315	7289	1086	15121	12858	2538	110440	112588	23839	9634	7120
Fort Smith, AR--OK MSA	38360	32568	22472	38509	12304	28587	43169	4540	1913	1610	2385	4407	3717	58218	61564	10715	3301	1697
Fort Walton Beach, FL MSA	38415	34748	23606	39285	12847	16299	47148	7897	4823	2246	6283	4398	2860	57077	56618	13361	5934	2888
Fort Wayne, IN MSA	103083	86506	62278	103603	30971	54051	123456	15991	8566	2076	12639	7124	2669	160418	142495	39806	16200	5570
Fort Worth--Arlington, TX PMSA	369834	314545	242136	390030	89016	234299	381381	80394	34044	22331	72640	150232	17389	450185	501145	134246	65278	31365
Fresno, CA MSA	196300	167924	141642	189809	53085	186887	183826	25925	12049	26862	17868	199258	16958	156871	316299	48308	22623	9287
Gadsden, AL MSA	24592	19572	12687	22962	9191	18155	26598	2480	1486	167	5341	729	603	36096	37931	6745	2560	830
Gainesville, FL MSA	54271	44065	48103	44812	13060	19814	58138	12259	9923	3650	17811	6956	2760	67652	82760	14176	6050	3439
Galveston--Texas City, TX PMSA	55782	47850	31552	58949	16738	33556	60279	10678	5890	2346	14908	21753	2238	66530	74317	19738	11526	5013
Gary, IN PMSA	146101	118928	85922	142992	45252	83678	169874	20375	10964	2832	52955	34789	4359	174747	201071	46472	29172	8160
Glens Falls, NY MSA	27974	24773	13676	29540	10377	16370	32913	4385	2795	238	989	934	755	47957	42808	9849	3249	1320
Goldsboro, NC MSA	25882	21954	15541	26037	8008	17978	29013	3692	1524	532	16290	2427	744	28265	41417	7290	2474	971
Grand Junction, CO MSA	26230	21857	15604	24433	9377	13466	30355	4711	2395	199	183	5914	1270	40346	39967	7697	3135	1334
Grand Rapids--Muskegon--Holland, MI MSA	217522	185179	144729	218985	59025	118202	246367	43118	19277	6531	29490	29169	8583	324799	300322	80632	38130	13626
Greeley, CO PMSA	38779	34727	28329	40013	9631	25901	44297	6561	2794	605	315	22184	1618	52569	57350	14143	5843	2106
Green Bay, WI MSA	50089	44566	31612	53794	13664	24687	61390	10765	3180	1843	912	3822	3279	82755	67819	21808	8837	3138
Greensboro--Winston-Salem--High Point, NC MSA	294232	241433	167161	294567	91313	184107	307216	58403	23686	6493	102681	30688	8371	384553	416366	103002	38878	18579
Greenville, NC MSA	32915	25015	24357	28548	8443	19479	33050	6092	3097	594	20154	2057	851	34403	48157	9688	3320	1547
Greenville--Spartanburg--Anderson, SC MSA	187104	153156	108222	184514	58712	129603	189706	33241	15399	3714	64791	12010	3951	251216	271498	61912	23999	10110
Hagerstown, MD PMSA	30100	25313	15125	30388	10873	19484	35092	3465	2243	335	2684	687	601	49122	43503	10871	4188	1348
Hamilton--Middletown, OH PMSA	76561	63752	52507	73871	21081	39560	88395	13679	7027	2458	7485	2041	1834	121976	102796	27518	14370	5564
Harrisburg--Lebanon--Carlisle, PA MSA	149323	121906	80023	146929	50759	80612	169994	24769	13319	3258	14907	7703	3199	234132	205743	56563	22108	7652
Hartford, CT MSA	167478	133541	84298	164509	57892	93350	156894	38377	25807	9154	33948	44783	7774	211126	202072	64072	35790	16843
Hattiesburg, MS MSA	26692	20369	19186	23366	7100	14761	28039	4982	2217	415	11191	827	494	33379	40879	6639	2463	1155
Hickory--Morganton--Lenoir, NC MSA	79061	68229	44566	81332	25850	66351	83356	9868	4176	3077	10218	6138	1625	123068	122513	27631	6922	3139
Honolulu, HI MSA	198164	177727	127689	197238	65501	95618	225704	48441	22350	208461	8198	29012	110482	77457	278675	75585	35895	13748
Houma, LA MSA	22555	19311	15614	22902	5686	22061	22445	2157	848	437	6759	888	3713	30079	35635	6669	2490	807
Houston, TX PMSA	906103	783695	630212	965800	198204	693569	833357	200296	96275	97269	296465	621935	35183	803117	1273488	293200	150445	90412

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
Huntsville, AL MSA	79174	65498	46368	81531	22420	42087	79073	19957	9853	2077	31203	3440	4638	102143	108536	24826	14737	6707
Indianapolis, IN MSA	367475	301392	217005	373794	104336	196781	392237	77757	38166	7911	87877	18396	9555	531006	478925	139351	68144	28148
Iowa City, IA MSA	25927	22699	25761	22610	4961	6796	27760	8448	5166	1671	890	1599	625	42560	36620	9891	3925	1840
Jackson, MI MSA	35910	31883	20476	37925	11580	20269	44786	5352	2437	337	4265	1754	1251	58342	51659	13656	6033	1819
Jackson, MS MSA	102684	79343	68845	96574	26085	63042	99066	21393	10100	1106	85022	2074	1977	92964	148495	30348	11989	5732
Jackson, TN MSA	25528	19713	15477	23656	7756	17003	25836	4060	2025	341	14002	449	546	29434	37693	7530	2449	1303
Jacksonville, FL MSA	254558	207511	148149	259097	72450	137321	280775	48993	22669	12252	96407	22440	10258	319743	349552	90066	38350	17953
Jacksonville, NC MSA	27186	34852	38789	24894	6123	14023	47820	3496	1552	1332	10564	6202	2378	42971	56528	8521	2783	809
Jamestown, NY MSA	32757	27303	18610	31481	11518	19858	38610	3820	2679	199	955	2386	906	53780	50932	10112	3376	1003
Janesville--Beloit, WI MSA	33949	29523	18971	35618	10858	18453	42430	4871	2332	455	1964	2331	824	56069	45654	14345	6333	1843
Jersey City, NJ PMSA	143257	121571	98607	140130	39646	115371	124656	31649	15262	28151	29523	140482	11394	95897	206559	46478	22790	9415
Johnson City--Kingsport--Bristol, TN--VA MSA	76032	62425	39875	73990	27303	51440	81405	11397	5956	509	3353	1631	1294	126153	117292	21942	7699	3471
Johnstown, PA MSA	55143	48249	29223	52463	22980	34869	69774	5763	2564	260	2202	961	529	95221	93457	14791	4081	1142
Joplin, MO MSA	35902	29800	21643	33908	12206	22316	42252	4502	2231	515	536	1914	2969	58060	57618	9996	2885	1215
Kalamazoo--Battle Creek, MI MSA	103974	86746	65810	101514	31251	52771	122442	17654	9343	2465	13909	7606	5460	157614	147209	36823	15820	5716
Kankakee, IL PMSA	23892	18926	14170	22594	7499	13875	27881	2732	1758	380	5992	2301	482	33047	32949	8471	3666	1066
Kansas City, MO--KS MSA	384009	318186	224028	392048	112289	184770	413038	90779	43301	12587	80816	42620	17473	542554	496836	152400	71221	29439
Kenosha, WI PMSA	33414	28761	20594	34339	9802	18725	39882	5424	2517	627	1850	4701	1138	52894	45318	12881	6784	1810
Killeen--Temple, TX MSA	65825	61467	58401	61915	16637	35259	86858	9691	4629	3745	22767	23128	4593	78411	108361	20408	7176	2864
Knoxville, TN MSA	138538	112303	79275	135031	44309	78336	145146	27002	15167	2879	16543	2773	3888	216490	203286	41411	17788	8369
Kokomo, IN MSA	23102	19288	12672	23402	7514	12507	28386	3095	1535	255	1800	630	568	37647	30849	7520	5250	1713
La Crosse, WI--MN MSA	25404	20513	18502	22334	7463	9001	31006	4920	2620	621	498	319	816	41865	36137	9080	2957	1371
Lafayette, LA MSA	56257	46050	37999	55180	14509	40173	55889	10455	4323	1168	21663	2030	740	74975	85721	14734	7198	3155
Lafayette, IN MSA	41635	37658	41123	34596	10420	16615	53964	7238	4983	3364	1232	4483	1351	67574	65078	13006	5979	2013
Lake Charles, LA MSA	41540	34336	26592	39363	12948	27162	46555	6067	2582	355	17452	1270	1010	54626	62764	11495	5881	2058
Lakeland--Winter Haven, FL MSA	112364	93996	56807	102845	48058	81939	121853	14735	7604	2719	26292	20937	4132	152885	172389	34391	12292	5005
Lancaster, PA MSA	105881	88561	62672	102872	35077	72820	111730	18006	8068	3013	4155	11071	2096	169507	147977	40061	15456	5918
Lansing--East Lansing, MI MSA	103881	85716	71198	102145	26523	42215	123050	20024	11960	4430	10914	8588	4889	157297	137086	38912	21144	6069
Laredo, TX MSA	39345	32116	31900	35899	8840	49201	28574	3330	2220	352	124	91494	256	3437	69017	6306	2481	863
Las Cruces, NM MSA	37086	32682	28132	34532	10983	32886	34632	5784	3738	496	859	57409	1869	23790	63413	7995	3546	1424
Las Vegas, NV--AZ MSA	299007	275453	191644	319061	89084	205658	351918	45410	21652	36010	50152	152374	25764	347771	435983	112168	50198	20475
Lawrence, MA--NH PMSA	59948	47915	32866	61806	16923	36286	54795	13668	8711	3592	1093	27017	1872	78319	77304	19143	10845	7095
Lexington, KY MSA	62058	51892	46255	60173	14759	27230	62590	16171	10681	2994	15242	4294	2251	87645	87283	19822	9816	5265
Lima, OH MSA	34901	30442	20733	35074	11656	18257	46353	3845	1971	270	4630	1056	1106	56306	51787	12436	5063	1486
Lincoln, NE MSA	56975	50099	46610	54223	13794	19948	66534	15859	6959	2632	2503	3852	2522	93026	80591	22684	8234	3727
Little Rock--North Little Rock, AR MSA	135806	111856	86417	132401	39489	74605	149347	26044	12684	2208	49531	5412	4501	182294	197441	44969	17675	7416
Longview--Marshall, TX MSA	39735	32661	25210	37169	12744	25861	44336	5605	2737	516	16495	5611	1262	48810	60621	11386	4537	1973
Los Angeles--Long Beach, CA PMSA	2090869	1796529	1450967	2110175	540054	1783645	1806488	429752	223096	581385	361182	2153863	156131	1279159	3091400	577178	323944	186201
Louisville, KY--IN MSA	218262	174747	116027	216919	70295	117488	225387	44317	26392	5251	50458	7052	7217	313793	292681	75694	34878	17286
Lowell, MA--NH PMSA	64643	54954	36122	71340	16949	35831	66370	14885	8422	10244	2258	8811	3311	94775	80044	25689	14396	6682
Lubbock, TX MSA	55689	46529	43460	50414	14743	33285	59716	10696	5282	1503	6979	33256	1307	65565	85937	15900	6144	2917
Lynchburg, VA MSA	51132	41346	28279	47749	18469	33161	54326	8210	4114	739	16960	1299	1298	70262	76120	15808	5746	2489
Macon, GA MSA	75187	58476	44220	73024	21470	49348	78051	11278	5939	1525	51719	3577	1831	75567	105849	24600	10379	3441
Madison, WI MSA	98494	87209	68412	103200	24627	33070	106298	29675	17833	6261	4954	7493	3446	159543	124536	44391	20021	8750
Manchester, NH PMSA	24977	21091	14968	24501	8147	14261	27535	5146	2035	1160	768	2028	835	40162	34884	9867	3645	1259
Mansfield, OH MSA	28736	26318	16347	29795	10375	18996	36697	3181	1390	269	4831	453	1029	46865	45150	9962	3427	1296
McAllen--Edinburg--Mission,	115899	97452	94394	103280	30007	149384	83639	11035	5429	1633	1266	250561	1264	24541	209034	17555	5950	2733

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
TX MSA																		
Medford--Ashland, OR MSA	42354	34929	21287	40524	16437	21556	48170	7805	4124	824	330	5435	3168	66389	63377	12284	5503	2424
Melbourne--Titusville--Palm Bay, FL MSA	113569	97072	50017	108222	51583	52890	131856	23052	12719	4067	15642	11836	5225	171028	162137	38280	18170	7991
Memphis, TN--AR--MS MSA	228537	179545	141353	226132	59274	137209	227643	45143	23825	8592	180540	11524	5602	206881	309908	77018	33531	16941
Merced, CA MSA	42096	37821	31348	41698	11514	44407	41059	4147	1642	5617	2576	46881	4342	33269	70250	10652	4564	1792
Miami, FL PMSA	524952	421764	301506	498101	174457	448752	449599	81901	59785	14609	176540	763352	22231	180139	813092	126775	54709	31720
Middlesex--Somerset--Hunterdon, NJ PMSA	269740	227291	146174	290089	77679	119657	255270	80520	49759	58991	35122	69752	10506	336500	303484	100295	73803	41972
Milwaukee--Waukesha, WI PMSA	343880	282971	200966	341813	105797	180010	361055	80329	36045	10955	80998	46775	12828	472503	443995	135027	63410	26786
Minneapolis--St. Paul, MN--WI MSA	635905	550019	392806	690162	160237	259606	695082	183263	77812	42988	49410	44770	29887	996208	765398	286242	140539	64151
Mobile, AL MSA	125864	98811	73540	118459	39889	82634	131728	18998	9763	2976	60524	3944	5052	150346	186067	35794	14767	6488
Modesto, CA MSA	96430	82280	64489	96795	26334	80943	100601	11879	5269	8188	3520	65737	11676	105658	145540	29264	13326	5297
Monmouth--Ocean, NJ PMSA	264251	212411	115906	262247	101264	121062	276451	63693	32710	14077	25793	33602	7378	389481	316225	88581	61292	35542
Monroe, LA MSA	35152	25729	23092	30249	10190	22094	34710	5749	2902	489	21536	826	589	37057	52439	8963	2988	1632
Montgomery, AL MSA	76724	63563	48103	74666	23161	49139	77269	14566	8847	1091	52314	1979	2142	82766	113346	23384	9959	4797
Muncie, IN MSA	28721	23456	20751	24556	9289	15570	33530	3843	2811	256	3042	724	656	45688	43336	8579	3530	1173
Myrtle Beach, SC MSA	46782	39508	25414	44890	17646	26918	54122	7702	3669	479	13070	2584	1278	67274	70973	14623	5331	2550
Naples, FL MSA	59432	51908	24459	50948	33309	33219	60776	14858	7756	823	4286	25115	1640	82762	78819	19936	9503	9393
Nashua, NH PMSA	26216	22257	14449	28910	6990	12020	27449	7046	3492	1489	440	2442	769	42238	30886	11230	5956	3074
Nashville, TN MSA	285919	238501	180576	293866	74912	167253	293439	65388	28631	8117	75702	19919	10896	402511	387945	105980	45841	22032
Nassau--Suffolk, NY PMSA	633725	526479	304966	670351	208599	273970	634349	157355	120134	45260	88467	139075	21882	873901	727974	213767	162736	107081
New Bedford, MA PMSA	41892	33642	22624	39209	15209	35194	39534	5835	3024	726	1873	4532	6551	61511	60753	13436	5633	1872
New Haven--Meriden, CT PMSA	84955	67510	49257	81638	26547	43515	83574	16972	14654	4585	18480	21359	3763	106869	106117	31500	17230	7321
New Orleans, LA MSA	291538	230455	173976	283505	84489	195793	288097	51230	27137	12334	193784	32231	9834	282644	428086	83593	36439	16069
New York, NY PMSA	2238571	1736589	1330901	2142083	651260	1569836	1841366	478166	340266	426479	857375	1246447	180594	1653059	2995323	647831	374627	220752
Newark, NJ PMSA	473202	380104	241307	493792	141808	254882	436446	122282	72056	40170	168782	138485	21381	514444	559701	164199	105300	67304
Newburgh, NY--PA PMSA	73979	64875	42617	81647	20239	42146	83626	13027	8738	2357	8768	17353	2515	108482	97242	27194	16826	6741
Norfolk--Virginia Beach--Newport News, VA--NC MSA	349713	298161	238511	350264	93039	175429	402934	67919	36358	22199	202214	25421	17487	386774	496256	126847	52968	21609
Oakland, CA PMSA	547493	459306	315467	583955	148095	279583	507643	156323	92209	198344	120734	223560	57081	488361	646889	196342	131739	81718
Ocala, FL MSA	63014	51620	25315	52047	34390	39932	73718	6962	4156	930	12640	8065	2209	89665	100324	16655	5208	2698
Odessa--Midland, TX MSA	52711	43169	32870	51117	15748	41758	51937	8683	3018	522	5367	40679	1207	56630	79544	14683	6353	3156
Oklahoma City, OK MSA	204644	172692	140710	198379	57301	112947	222492	42232	21261	12696	40676	32432	31628	266189	301788	66832	27299	11779
Olympia, WA PMSA	47762	41642	30133	49526	13683	21464	53731	10981	6546	4191	1767	4762	5675	72588	63705	19078	10191	2875
Omaha, NE--IA MSA	131528	110155	85787	133098	34738	59835	142208	34040	14396	4674	22379	18843	5598	188768	177860	49812	21469	9808
Orange County, CA PMSA	625779	548165	409097	660041	164054	415926	588299	161300	77758	194707	17221	446697	42478	599026	831376	204419	128708	80703
Orlando, FL MSA	376361	323317	220096	384250	119163	208012	409025	84764	36777	20305	85396	144172	20612	457007	542824	127981	54014	28020
Panama City, FL MSA	34388	28645	18096	34578	11799	19407	40116	5001	2999	1340	6674	1393	1814	50574	51550	10886	4130	1710
Pensacola, FL MSA	93571	82786	58183	93849	30752	52726	108918	17490	8592	3576	28953	5935	6629	130109	144245	28890	12406	5490
Peoria--Pekin, IL MSA	80242	67353	46498	78234	27186	39594	96068	14060	6595	1498	9397	2664	1773	127618	110149	28871	14587	4937
Philadelphia, PA--NJ PMSA	1194747	956635	637879	1180682	388281	635262	1193726	269098	153523	75952	370111	123171	38382	1536657	1505732	430743	237104	113039
Phoenix--Mesa, AZ MSA	672274	596479	451828	671545	203536	413667	712483	148656	72851	31649	42148	381017	48963	842602	939468	244468	114332	60507
Pittsburgh, PA MSA	556437	443417	267475	522856	218017	263669	621243	107339	57073	11133	68206	9460	10864	865348	797825	169160	78199	32870
Portland, ME MSA	57194	46672	28682	61069	16981	21214	59152	16481	8518	1605	1273	1323	2010	93889	75749	21863	8784	4649
Portland--Vancouver, OR--WA PMSA	404710	349516	249118	436237	104375	187566	440163	103976	49894	40398	20843	63768	32658	597521	533629	157015	77831	36248
Providence--Fall River--Warwick,	246275	193994	135084	234457	81992	170804	237465	43457	23426	10570	14266	42608	15624	355504	340288	83401	37780	12637

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
RI--MA MSA																		
Provo--Orem, UT MSA	75692	65171	85394	58035	13377	31603	91182	17137	6776	1713	431	11211	3537	121862	117355	20497	10620	4222
Pueblo, CO MSA	31347	25870	18562	28928	11259	19411	35717	4506	2194	540	1078	28106	1364	32365	49315	8980	3143	946
Punta Gorda, FL MSA	36473	29607	10529	25741	25576	19955	42155	5242	3272	456	2984	2553	988	57263	54027	11419	3783	2199
Racine, WI PMSA	41791	34871	20725	44105	13580	22744	48307	7498	3125	241	5421	5022	846	63748	53408	16730	8972	2788
Raleigh--Durham--Chapel Hill, NC MSA	273731	231200	184496	288992	61059	135299	252046	85306	44335	14603	113549	35766	9621	334782	355327	100693	52476	28490
Reading, PA MSA	86261	71657	46271	85566	29786	53953	97148	13106	6274	1546	3561	12516	1790	135690	120040	31705	13509	4761
Redding, CA MSA	37321	31133	18148	37583	13720	19450	45078	5867	2644	1324	304	4112	4743	57380	55958	10945	5122	2040
Reno, NV MSA	75037	68630	46493	81825	21595	41661	86891	16282	7247	6697	2706	28147	9446	102390	103650	29944	13725	6497
Richland--Kennewick--Pasco, WA MSA	40230	36457	28125	41644	11023	29603	42028	7261	4168	1951	796	20392	2042	55021	59352	12853	7679	2749
Richmond--Petersburg, VA MSA	234887	187688	129460	242501	65588	126451	227557	58876	28416	9851	126959	12110	8900	264865	298813	91362	41242	19112
Riverside--San Bernardino, CA PMSA	680182	599896	458542	682237	199970	524527	742463	92337	47962	61885	90741	580369	54758	641315	1018667	207062	111206	44855
Roanoke, VA MSA	57868	44923	28276	56013	20158	32308	61214	10635	5103	861	13365	1499	1746	82618	81473	19127	6862	3320
Rochester, MN MSA	27561	23525	15708	29675	7681	11387	30416	7133	3612	1617	695	943	974	45293	34025	12836	4998	2463
Rochester, NY MSA	237583	195894	131932	241770	73400	118913	254663	49000	31032	8368	38129	21169	9074	349768	321458	87255	41239	15179
Rockford, IL MSA	71227	61117	40050	73554	22847	42572	82778	11601	5276	1485	9999	10813	1825	106913	96128	28119	13140	4576
Rocky Mount, NC MSA	33878	26373	16841	34136	10658	25774	35015	4277	1476	114	24942	1940	674	32962	50782	10242	3188	1232
Sacramento, CA PMSA	368605	306352	212983	375959	110099	188656	400002	81943	37987	70713	48096	112354	39640	433051	479647	132444	77117	30738
Saginaw--Bay City--Midland, MI MSA	92339	77297	51914	93238	29646	49953	113075	13093	5903	1477	12889	7711	2828	141166	133038	29447	14935	5461
St. Cloud, MN MSA	37695	34434	27692	37343	11008	20463	48487	5945	2407	894	313	852	722	66618	57505	14718	4424	1630
St. Joseph, MO MSA	23314	20241	14864	22556	7749	12530	29177	3475	1500	198	1120	1054	650	39091	36050	7732	2550	993
St. Louis, MO--IL MSA	605013	489316	342016	596315	190112	334685	639070	118919	64793	16590	189159	20607	17167	830329	805953	218766	102610	44187
Salem, OR PMSA	61276	54733	40368	60754	19704	40411	69457	10492	4898	2378	791	21330	4708	89492	91928	21350	9050	3205
Salinas, CA MSA	60068	56077	43950	61847	16858	52405	56533	11101	7155	10582	6241	58689	5835	51177	90559	19215	10409	4918
Salt Lake City--Ogden, UT MSA	275868	252274	233174	269688	64692	145304	323154	60300	28090	14341	5293	65737	19071	426955	401061	101670	46103	19739
San Antonio, TX MSA	347148	288703	231434	338339	96804	236963	351658	62092	34347	11245	44555	410727	13649	258705	514959	102485	46205	22768
San Diego, CA MSA	618264	558722	437526	624718	176528	342577	658561	149806	82854	123550	61965	374061	59222	659608	878529	207960	113077	60437
San Francisco, CA PMSA	415466	366852	229336	447658	130216	199614	339294	157507	89395	203432	38956	161395	38069	402134	475416	152472	103126	82766
San Jose, CA PMSA	371901	341566	242027	411735	96312	200325	321944	123437	81586	211013	19073	199939	31713	326497	434558	124318	99879	81941
San Luis Obispo--Atascadero--Paso Robles, CA MSA	55794	52465	38968	54136	19642	26942	67717	12302	6460	3912	2092	21590	4428	79831	84479	17235	9942	4876
Santa Barbara--Santa Maria--Lompoc, CA MSA	89999	79505	64495	84536	28583	54969	91184	20506	12326	7950	3324	67209	6030	100542	129258	27038	15572	9504
Santa Cruz--Watsonville, CA PMSA	58937	52125	40260	62571	14481	32997	57491	16201	8873	4950	871	37131	4714	71523	79616	18625	11284	8233
Santa Fe, NM MSA	34563	28912	17709	37327	10290	17347	30420	9026	8026	706	496	36130	4241	30987	45281	11852	5935	4281
Santa Rosa, CA PMSA	105259	90865	57453	112753	32186	54062	111424	26104	13031	6874	2445	38368	9299	145205	132230	40349	23080	12111
Sarasota--Bradenton, FL MSA	149261	117818	50762	120566	85551	66936	163364	30296	17672	2730	13673	18323	3356	223991	199957	50514	20215	14408
Savannah, GA MSA	53805	44445	33687	50418	17647	33090	54398	11315	5662	1613	40219	2769	1613	53005	78598	16340	6990	3918
Scranton--Wilkes-Barre--Hazleton, PA MSA	151405	124952	76027	144113	59447	80375	179928	22458	12314	1669	3139	3322	1747	255044	229260	46911	17289	6449
Seattle--Bellevue--Everett, WA PMSA	533853	467844	316428	592993	137401	207125	551362	173361	82209	108060	39603	61892	54913	745881	640920	221666	131424	63608
Sharon, PA MSA	28133	23867	15342	26769	10837	15179	34705	3949	1935	276	1584	381	466	47233	44114	8962	2938	703
Sheboygan, WI MSA	24777	22330	13807	26483	8221	13155	31059	4365	1670	1023	595	1128	475	42380	33929	11328	3996	1403
Shreveport--Bossier City, LA MSA	91634	72988	54779	86409	29014	60785	97108	13774	6747	1365	58078	3997	2895	98420	138042	25926	10006	4475
Sioux City, IA--NE MSA	23632	18950	14372	21929	7707	12875	27075	4007	1528	833	520	3226	1027	36307	34428	8309	2609	817
Sioux Falls, SD	27653	24639	20544	27575	7284	12093	32566	7161	2515	512	627	1180	2398	46243	41128	10617	3301	1517

PMSA/MSA	Sex F	Sex M	Age Y	Age M	Age O	Ed No HS	Ed HS	Ed Coll	Ed Prof	Race A	Race B	Race H	Race O	Race W	Inc 30K	Inc 30-50	Inc 50-75	Inc 75+
South Bend, IN MSA	61471	50451	39523	56240	20293	33699	67848	10616	6615	1587	11047	5698	2140	89680	88594	20586	8341	3304
Spokane, WA MSA	95917	81919	60628	95648	28912	41640	114380	19390	10282	4182	2647	5583	8003	153647	142155	31875	12896	5330
Springfield, IL MSA	26782	20823	14669	25262	8883	11031	27359	6590	3843	652	6295	768	645	38031	34929	9806	4638	1621
Springfield, MO MSA	76482	64165	51853	71982	23209	40609	89115	13532	6274	1009	1944	2602	4494	126109	119380	22598	7231	3650
Springfield, MA MSA	143554	111568	88862	130258	45189	76184	151206	25306	16745	5595	14314	35139	5247	196468	196328	50903	20440	7046
Stamford--Norwalk, CT PMSA	82205	67193	34146	88870	28034	32268	59017	31355	23559	6292	11424	20441	3362	109894	83787	24844	18629	24602
State College, PA MSA	32177	29598	28912	28708	8728	12912	40130	6339	4688	2167	1469	947	771	54573	52589	9685	3362	1635
Stockton--Lodi, CA MSA	119812	104316	80716	119256	34843	101181	126793	14901	6411	27674	13334	82044	12371	112273	179708	36222	18900	7331
Sumter, SC MSA	23586	19868	15525	23188	6754	18879	24913	2984	1313	503	21426	966	648	20608	38393	6460	2048	618
Syracuse, NY MSA	167650	140660	95946	168873	53357	88060	189267	29530	19134	3893	14689	6585	7445	266892	240081	58923	24885	8802
Tacoma, WA PMSA	154861	136491	99677	166089	40153	77683	189250	28362	13265	20212	19125	19069	21178	214811	212139	60723	29834	10040
Tallahassee, FL MSA	68829	55862	56109	62082	15561	31856	68301	16805	11406	2658	44191	6544	1797	70918	99780	21450	9090	4196
Tampa--St. Petersburg--Clearwater, FL MSA	581157	466834	266453	534388	247667	318615	632024	107733	53849	22636	95818	131359	22402	783420	824712	187509	75171	40262
Terre Haute, IN MSA	34717	29852	22224	32342	12197	20056	42258	4085	3147	480	2168	934	845	57857	54709	10321	4012	1264
Toledo, OH MSA	143392	116475	91614	135506	43402	73676	166864	23316	12244	2925	28358	12415	5251	206729	201137	48452	22475	7858
Topeka, KS MSA	40164	31715	21976	38693	13120	17691	44530	8290	4383	571	5810	5345	2526	57023	54838	15254	5248	2046
Trenton, NJ PMSA	82624	67153	44623	84252	25371	45357	73433	20355	15851	8495	26583	18538	3255	96269	98670	29958	18508	10656
Tucson, AZ MSA	197459	162060	120073	183630	67166	106404	207784	38874	25394	8084	9193	125363	23047	222395	291411	58454	24860	13228
Tulsa, OK MSA	158712	132316	97765	158941	46242	86357	173936	32865	14704	3350	26679	17357	39313	209046	226432	53605	23397	10021
Tuscaloosa, AL MSA	39471	31573	29411	35239	10529	23420	41614	6547	4243	850	19659	982	1128	47710	58267	11799	5063	1795
Tyler, TX MSA	40729	32430	24250	37318	13778	24601	43062	7181	3471	688	13758	8093	1135	50152	58800	12196	5392	2507
Utica--Rome, NY MSA	68959	60426	36531	69531	25821	44544	79627	9621	6156	1095	4550	3859	1725	114284	107466	23600	7294	2453
Vallejo--Fairfield--Napa, CA PMSA	114975	101351	71076	121947	32673	66518	129898	23067	10641	26400	23001	48819	13473	119700	150892	44172	25172	10394
Ventura, CA PMSA	163487	143779	100722	176553	43988	108716	163924	35961	19086	19570	6259	129768	9896	172996	215658	55051	34783	20456
Vineland--Millville--Bridgeton, NJ PMSA	31894	29635	18482	34229	10771	29001	35138	3312	1619	492	11328	12325	1750	38236	50856	10410	4544	1176
Visalia--Tulare--Porterville, CA MSA	74880	67235	56921	72449	21047	85648	68183	6752	3207	4968	1932	89691	6581	62087	128770	16247	7407	3113
Waco, TX MSA	49235	39703	34213	43013	15644	31939	54674	6629	3326	751	11164	17642	1155	60755	75016	14586	4770	2193
Washington, DC--MD--VA--WV PMSA	1091106	906591	631900	1195209	261937	491936	916889	335985	264235	155359	528402	227418	64171	1093388	1179367	426194	289682	184360
Waterbury, CT PMSA	24857	19896	15141	22373	8590	18855	26070	2973	1450	761	6494	10826	1350	27534	35368	8775	3422	857
Waterloo--Cedar Falls, IA MSA	30146	24538	21612	25772	9787	12663	36903	5156	2675	606	3202	952	744	47412	45424	9023	3603	1274
Wausau, WI MSA	27720	25201	15834	30419	8535	15895	35202	4201	1674	1207	135	420	479	48685	40399	11791	3742	1294
West Palm Beach--Boca Raton, FL MSA	276010	222847	113192	239056	138064	138372	281887	63751	35823	8098	63418	75317	11338	349809	356089	91486	43728	36751
Wichita, KS MSA	120894	102079	73961	120667	36908	61186	137095	25529	11041	6110	15899	17126	7841	175167	165802	46620	20294	6991
Wichita Falls, TX MSA	29079	27281	23573	26622	9386	17856	35804	4889	2134	1302	5236	8390	1861	40769	49187	8564	2696	1167
Williamsport, PA MSA	28320	24258	14337	28933	10267	16200	35481	3466	1676	170	725	297	407	48750	44443	8910	3075	865
Wilmington--Newark, DE--MD PMSA	117527	93970	67582	116647	34714	53278	121165	27929	16239	5973	37721	12827	3457	150821	140001	46358	25807	11679
Wilmington, NC MSA	56518	46681	30387	53519	21194	27765	62431	12919	5083	590	16371	3250	1784	79429	81545	17700	7647	4173
Worcester, MA--CT PMSA	67379	53716	38572	63543	22423	35103	67482	14997	8954	5136	4185	12498	2865	96260	88602	24188	12337	4501
Yakima, WA MSA	46612	41620	32867	46086	13740	45757	45496	5297	2938	1408	512	37849	6593	51137	76552	13209	4689	1844
Yolo, CA PMSA	39494	32341	32513	35161	9322	21480	37358	8986	6912	8037	1327	21784	4251	42148	56102	11686	6368	3012
York, PA MSA	88048	74512	46277	92559	28134	51897	102266	13828	6647	1310	4540	5409	1723	144505	121063	35715	14158	4161
Youngstown--Warren, OH MSA	139830	116307	73435	135140	52100	81364	169167	18149	8110	1274	24094	5489	3296	214775	210389	43698	18076	5688
Yuba City, CA MSA	29924	25629	19187	29212	9392	24588	32183	3490	1492	5022	1290	12907	3851	35732	46970	8302	3725	1379
Yuma, AZ MSA	34221	30411	23119	29853	13634	34461	34406	2828	1799	494	1209	41612	2309	29310	58595	8006	3084	1136

References

[1] *Summary File 3: 2000 Census of Population and Housing: Technical Documentation*, SF3/18 (RV), U.S. Census Bureau, July 2007. [Adobe Systems Portable Document Format (PDF)]. Available: http://www.census.gov/prod/cen2000/doc/sf3.pdf

[2] *Public Use Microdata Sample: 2000 Census of Population and Housing: Technical Documentation*, PUMS/15-US (RV), U.S. Census Bureau, December 2005. [Adobe Systems Portable Document Format (PDF)]. Available: http://www.census.gov/prod/cen2000/doc/pums.pdf

[3] U.S. Census Bureau, "About Metropolitan and Micropolitan Statistical Areas", June 07, 2005; http://www.census.gov/population/www/estimates/aboutmetro.html.

[4] U.S. Census Bureau, "Metropolitan and Micropolitan Statistical Areas", April 04, 2007; http://www.census.gov/population/www/estimates/metroarea.html.

[5] *1999 Metropolitan Area maps by State*, U.S. Census Bureau. [Adobe Systems Portable Document Format (PDF)]. Available: http://www.census.gov/geo/www/mapGallery/stma99.pdf

[6] *METROPOLITAN AREAS AND COMPONENTS, 1999, WITH FIPS CODES (Metropolitan areas defined by Office of Management and Budget, 6/30/99)*, Population Division, U.S. Census Bureau, Internet Release Date: July 1999, Last Revised: January 28, 2002. [text]. Available: http://www.census.gov/population/estimates/metro-city/99mfips.txt

[7] *METROPOLITAN AREAS 1999 - LISTS I-IV*, Attachments to OMB Bulletin No. 99-04, Statistical Policy Office, Office of Management and Budget, 1999. [Adobe Systems Portable Document Format (PDF)]. Available: http://www.whitehouse.gov/omb/inforeg/msa99.pdf

[8] *State and Metropolitan Area Data Book 1997-98 (5th Edition)*, U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, 1998. [Adobe Systems Portable Document Format (PDF)]. Available : http://www.census.gov/prod/3/98pubs/smadb-97.pdf

[9] U.S. Census Bureau, "Metropolitan Areas Ranked by Population: 2000", June 21, 2007; http://www.census.gov/population/www/cen2000/phc-t3.html.

[10] *Metropolitan Areas*, SB/94-9, U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, April 1994. [Adobe Systems Portable Document Format (PDF)]. Available : http://www.census.gov/apsd/www/statbrief/sb94_9.pdf

[11] U.S. Census Bureau, "Census 2000 Public Use Microdata Areas (PUMAs)", February 07, 2005; http://www.census.gov/geo/puma/puma2000.html.

[12] U.S. Census Bureau, "Census 2000 Public Use Microdata Area (PUMA) Maps", October 04, 2005; http://www.census.gov/geo/www/maps/puma5pct.htm.

[13] U.S. Census Bureau, "Public Use Microdata Sample File (PUMS): 2000 PUMS Top Coded Values", October 17, 2007; http://www.census.gov/acs/www/Products/PUMS/C2SS/MinMaxVal.htm.

[14] Hirshman, Brian & Martin, Michael & Carley, Kathleen. (2008). Modeling Information Access in Construct. *Carnegie Mellon University, School of Computer Science, Institute for Software Research, Technical Report CMU-CS-08-115*. http://www.casos.cs.cmu.edu/publications/papers/CMU-CS-08-115.pdf.