



July 21, 2023

MEMORANDUM FOR: JENNIFER EPPS, Survey Director
ADDP/ADDP-SO/CE Survey Team
U.S. Bureau of the Census

FROM: ADAM SAFIR, Chief
Division of Consumer Expenditure Surveys
Office of Prices and Living Conditions
U.S. Bureau of Labor Statistics

SUBJECT: PSUs for the Consumer Expenditure Survey's 2020 Census-Based
Sample Design

I. Introduction

Every ten years the Consumer Expenditure Survey (CE) updates its sample of primary sampling units (PSUs) based on the latest decennial census. The purpose is to make sure CE's sample accurately reflects the latest geographic shifts in the American population. This memo provides a list of the 91 PSUs that were recently selected by the Bureau of Labor Statistics (BLS) for the CE survey based on the 2020 census. They are scheduled to be used over the ten-year period 2025-2034.

The list of PSUs is at the end of the memo (see Appendix 1). It shows the 91 PSUs that were selected, the counties that constitute them, and their populations. The United States has 3,144 counties (or county equivalents) which BLS and the Census Bureau partitioned into 1,492 PSUs, and from which BLS selected 91 of them for CE's sample. The list of added and dropped PSUs also appears at the end of the memo (see Appendix 2).

II. Overview of CE's Geographic Sample Design

CE's overall geographic sample design remains unchanged from the 2010 census-based sample design. It still consists of the largest core-based statistical areas (CBSAs) in the country, plus a random sample of smaller CBSAs, and non-CBSA areas.¹ The areas are called PSUs and combined they represent the whole country.

There are 1,492 PSUs in the country, and they are still stratified geographically by the nine Census divisions, and demographically by three population size classes – self-representing (S), non-self-representing (N), and rural (R). The "S" PSUs are the largest CBSAs in the country (those with over 2.8 million people); the "N" PSUs are smaller CBSAs (those with under 2.8 million people); and the "R" PSUs are non-CBSA areas. The "R" PSUs were defined by BLS staff by partitioning the counties that are not in CBSAs into clusters of contiguous counties similar in size to CBSAs.

There are 23 "S" PSUs in the sample. They are self-representing, which means they are the only PSUs in their strata, and they were selected with certainty. They consist of the 21 CBSAs with over 2.8 million people, plus Anchorage and Honolulu. The threshold for this class of PSUs was increased from 2.5 million people in the 2010 census-based sample design to 2.8 million people in the 2020 census-based sample design. That keeps the set of self-representing

¹ A Core-Based Statistical Area (CBSA) is a geographic area defined by the Office of Management and Budget for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. It is a collective term for both metropolitan and micropolitan areas. A metropolitan CBSA has an urban core with 50,000 or more people, and a micropolitan CBSA has an urban core with 10,000 to 50,000 people. CBSAs consist of the county containing the urban core plus the adjacent counties that have a high degree of social and economic integration with the core as measured by commuting ties.

PSUs unchanged. Anchorage and Honolulu are treated as self-representing for publication purposes because their expenditure patterns are different than those of PSUs in the continental United States.

There are 52 “N” PSUs in the sample. They are non-self-representing, and they were randomly selected to represent the rest of the CBSAs or “urban” parts of the country. And there are 16 “R” PSUs in the sample. They are non-self-representing, and they were randomly selected to represent the non-CBSAs or “rural” parts of the country.

The PSU definitions come from the March 2020 CBSA “delineations.” Those delineations reflect concepts from the 2010 decennial census, such as how an “urban core” is defined, but with updated population estimates. They do not reflect new concepts from the 2020 decennial census, such as the new way of defining an urban core. The original plan was to use preliminary CBSA definitions from the 2020 decennial census, but those definitions were not delivered in time to use. As a result, the CE survey will be using the March 2020 CBSA definitions. Those definitions will be used for the whole ten-year period 2025-2034. They will *not* be changed when new definitions become available.

III. How PSUs Were Selected for the Sample

After stratifying the complete universe of 1,492 PSUs into nine divisions and three size classes, BLS selected 23 “S” PSUs, 52 “N” PSUs, and 16 “R” PSUs for the sample:

Region	Division	PSU Size Class			Total
		S	N	R	
1. Northeast	1. New England	1	4	1	6
	2. Middle Atlantic	2	6	1	9
2. Midwest	3. East North Central	2	7	2	11
	4. West North Central	2	3	3	8
3. South	5. South Atlantic	5	1	3	18
	6. East South Central	0	4	2	6
	7. West South Central	2	7	2	11
4. West	8. Mountain	2	4	1	7
	9. Pacific	7	7	1	15
Total		2	5	1	91
		3	2	6	

As mentioned above, the 23 “S” PSUs are the largest CBSAs in the country, plus Anchorage and Honolulu. They are the CBSAs with over 2.8 million people. They are self-representing, which means no sampling process was used when deciding to include them in the sample.

By contrast, the 52 “N” PSUs are a representative sample of CBSAs with under 2.8 million people. They are non-self-representing, which means they were chosen with a sampling process. In the sampling process, the universe of CBSAs with under 2.8 million people was partitioned into 52 strata based on their Census division, their population, and four variables that research found were correlated with expenditures – income, education, computer ownership, and urbanicity. Then one PSU was selected from each stratum in a semi-random process.

To be more precise, within each division, the “N” PSUs were partitioned into two smaller size classes – those with over 200,000 people, and those with under 200,000 people – and within each of those smaller size classes, the PSUs were stratified by the four variables that research found were correlated with expenditures. The PSUs were stratified into these two size classes to make sure both large and small PSUs were selected for the sample. With stratification completed, a sample of “N” PSUs with over 200,000 people was selected in a two-step process. The first step was determining whether a stratum had a PSU that was already in the sample. If it did, then that PSU was automatically

selected. Otherwise, the second step was randomly selecting a PSU from the stratum with probability proportional to its population. Then a sample of “N” PSUs with under 200,000 people was selected in a three-step process. The first step was determining whether a stratum had a PSU that was already in the sample. If it did, then that PSU was automatically selected. Otherwise, the second step was identifying the PSUs that were geographically close to an “S” PSU or a selected “N” PSU with over 200,000 people. “Geographically close” meant within 20 miles of them, and the purpose of it was to facilitate data collection. And the third step was randomly selecting one of those PSUs with probability proportional to its population.²

The 16 “R” PSUs are a representative sample of non-CBSA or “rural” areas. They were selected in a similar three-step semi-random process. After stratifying the “R” PSUs within each Census division by the four variables that research found were correlated with expenditures, the first step was determining whether a stratum had a PSU that was already in the sample. If it did, then that PSU was automatically selected. Otherwise, the second step was identifying the PSUs that were geographically close to an “S” PSU or a selected “N” PSU. Again, “geographically close” meant within 20 miles of them. The third step was randomly selecting one of those PSUs with probability proportional to its population.

IV. Connecticut

The governor of Connecticut recently asked the Census Bureau to change the definitions of its counties, and the Census Bureau agreed to do it. Since the sample design is based on CBSA definitions from March 2020, which pre-dates the new counties, a mapping was made to link the new counties to the March 2020 CBSAs. This table shows the mapping. It includes both county names and FIPS codes:

Mapping of Connecticut’s New Counties to the March 2020 CBSAs		
CBSA	Old Definition	New Definition
Hartford, CT	Hartford, Middlesex, Tolland (09003, 09007, 09013)	Capitol, Lower Connecticut River Valley (09110, 09130)
New Haven, CT	New Haven (09009)	South Central Connecticut, Naugatuck Valley (09170, 09140)
Bridgeport, CT	Fairfield (09001)	Greater Bridgeport, Western Connecticut (09120, 09190)
Torrington, CT	Litchfield (09005)	Northwest Hills (09160)
Norwich, CT	New London (09011)	Southeastern Connecticut (09180)
Worcester, MA	Windham (09015)	Northeastern Connecticut (09150)

V. Alaska and Hawaii

Alaska has four CBSAs (Anchorage, Fairbanks, Juneau, Ketchikan), and Hawaii also has four CBSAs (Honolulu, Hilo, Kahului-Wailuku-Lahaina, Kapaa). The four CBSAs in Alaska were grouped into a single state stratum, and Anchorage was selected with certainty to represent it. Likewise, the four CBSAs in Hawaii were grouped into a single state stratum, and Honolulu was selected with certainty to represent it. These state-level strata were defined by the Consumer Price Index program, and the CE program is using them to be consistent with the CPI program.

² The small “N” PSUs (those with under 200,000 people) were required to be geographically close to an “S” PSU or a large “N” PSU in the sample to make data collection easier by allowing field representatives (FRs) to travel from one PSU to another PSU to fill in for another FR when the need arises. For example, when an FR gets sick or goes on vacation. Twenty miles was felt to be a reasonable distance for an FR in one PSU to travel to another PSU, collect data in that PSU, and then return home at the end of the day.

The distance between PSUs was computed from the edge of one PSU to the edge of the other PSU. The edges of the PSUs were determined by starting with their geographic areas, and the latitudes and longitudes of their population centers (their demographic centers, not their geographic centers), and then backing into their radii under the assumption that the PSUs’ shapes were circles. The distance between two PSUs was the shortest distance between the two circles. In practice, this edge-to-edge distance was computed as the distance between the two PSUs’ centers, minus the sum of the two circles’ radii.

Anchorage and Honolulu are classified as self-representing PSUs for publication purposes, but non-self-representing PSUs for the purpose of drawing their samples. That means when drawing their samples, their *stratum* populations should be used as their measure of size.

Alaska also has twenty-five non-CBSA (“rural” or “R”) PSUs, and Hawaii has one non-CBSA (“rural” or “R”) PSU. They were not included in the Anchorage and Honolulu strata because they are out-of-scope for the CPI program. Instead, they were stratified and treated just like any other non-CBSA PSUs in their division.

VI. Phase-In/Phase-Out Process

The phase-in/phase-out (PIPO) process will be different in this sample design than in past sample designs. In past sample designs, the old sample of PSUs was dropped at the same time the new sample of PSUs was introduced. Both were done in a single year. However, this time the PIPO process will be done over a three-year period instead of in a one-year period. A few old PSUs will be dropped, and a few new PSUs will be added each year. At the end of the three-year period, the changeover from the old sample design to the new sample design will be complete. The purpose of the longer PIPO period is to smooth out over time the costs associated with hiring and training new field staff.

As mentioned above, there were 91 PSUs in the 2010 census-based sample design, and there will still be 91 PSUs in the 2020 census-based sample design. However, 24 of those PSUs will be changing. The table below shows the number of old PSUs that will be dropped from the sample, and the number of new PSUs that will be added to the sample by PSU size class.

Number of PSUs Being Dropped from the Old Sample Design And Added to the New Sample Design				
	S	N	R	Total
Number of PSUs in the 2010 census-based sample design	23	52	16	91
Number of old PSUs being dropped	-0	-14	-10	-24
Number of new PSUs being added	+0	+14	+10	+24
Number of PSUs in the 2020 census-based sample design	23	52	16	91

Here is a list of the 24 PSUs being dropped from the sample, and the 24 PSUs being added to the sample. All 24 of them will be phased-in/phased-out over the three-year period 2025-2027.

24 Old PSUs Being Dropped from the Sample, and 24 New PSUs Being Added to the Sample	
Old PSUs Being Dropped	New PSUs Being Added
N23E Columbus, OH	N11D Burlington-South Burlington, VT
N23G Dayton, OH	N11E Pittsfield, MA
N23H Flint, MI	N12G Kingston, NY
N23J Frankfort, IN	N12H Chambersburg-Waynesboro, PA
N24C Omaha-Council Bluffs, NE-IA	N23K Indianapolis-Carmel-Anderson, IN
N24F Brookings, SD	N23L Green Bay, WI
N35J Greenville-Anderson-Mauldin, SC	N23M Terre Haute, IN
N35K Winston-Salem, NC	N24H St. Cloud, MN
N35M Ocala, FL	N35R Gainesville, GA
N35O Wilmington, NC	N35S Punta Gorda, FL
N35Q Clarksburg, WV	N35T Winchester, VA-WV
N36D Huntsville, AL	N49L Sacramento-Roseville-Folsom, CA
N36F Meridian, MS	N49M Eugene-Springfield, OR
N37E Baton Rouge, LA	N49N Yuba City, CA
R12G Susquehanna-Wayne, PA	R12A Delaware-Sullivan, NY
R23K Cheboygan-Presque Isle, MI	R23A Hardin-Wyandot, OH
R24G Daviess-Gentry-Grundy-Harrison-Mercer-Worth, MO	R24A Crawford-Gasconade-Iron-Washington, MO
R24H Cedar-Knox, NE	R24B Meeker-Renville-Sibley, MN
R35S McDowell-Mingo-Wyoming, WV	R24C Johnson-Nemaha-Otoe-Pawnee-Richardson, NE
R36G Floyd-Johnson-Lawrence-Martin-Pike, KY	R35A Caroline-Essex-King George-Middlesex, VA
R36H Carroll-Decatur-Henderson, TN	R35C Lancaster-Northumberland-Richmond-Westmoreland, VA
R48G Ravalli, MT	R36A Franklin-Marion-Winston, AL
R48H Lincoln, NM	R36B Casey-Marion-Washington, KY
R48I Gooding, ID	R48A Daggett-Duchesne, UT

The exact schedule for the PIPO has been only partially determined at this point. The PSUs being phased-in/phased-out have been determined for 2025, but not for 2026-2027. The basic plan is to phase-in/phase-out 8 PSUs per year as this table shows.

CE's 3-Year PIPO Schedule						
Dropped PSUs				Added PSUs		
	2025	2026	2027	2025	2026	2027
“N” PSUs	N23E Columbus, OH	TBD	TBD	N11E Pittsfield, MA	TBD	TBD
	N23H Flint, MI	TBD	TBD	N12H Chambersburg, PA	TBD	TBD
	N35M Ocala, FL	TBD		N23K Indianapolis, IN	TBD	
	N36D Huntsville, AL	TBD		N23L Green Bay, WI	TBD	
	N36F Meridian, MS	TBD		N35S Punta Gorda, FL	TBD	
	N37E Baton Rouge, LA	TBD		N49L Sacramento, CA	TBD	
“R” PSUs	R48I Gooding, ID	TBD	TBD	R24B Meeker-Renville, MN	TBD	TBD
	R48G Ravalli, MT	TBD	TBD	R35A Caroline-Essex, VA	TBD	TBD
			TBD			TBD
			TBD			TBD
			TBD			TBD
			TBD			TBD

VII. SAS Dataset with PSU Information

In addition to providing the complete list of 91 selected PSUs at the end of the memo, a SAS dataset is also being provided. The file is called CECPI_PSULIST_2020DESIGN.sas7bdat. It has 3,144 records, one for every county (or county equivalent) in the United States, and it contains the following variables:

Variable name	Format	Description
State_Name	Character \$2	State Name (DC, MD, VA, WV, etc.)
County_Name	Character \$33	County name (Montgomery, Howard, Fairfax, Loudon, etc.)
State_FIPS	Character \$2	State FIPS code (01,02,...,56)
County_FIPS	Character \$3	County FIPS code (001,002,003,...)
FIPS	Character \$5	State and county FIPS codes concatenated (09110, 09120, etc.)
PSU_Code	Character \$8	PSU code (N12C.001, N12C.002, etc.)
PSU_Name	Character \$85	PSU name (Washington-Arlington-Alexandria, DC-VA-MD-WV)
PSU_Type	Character \$5	CBSA type (Metro, Micro, Rural)
Selected	Character \$1	Was the PSU selected for sample? (Y/N)
Stratum	Character \$4	Stratum code (N12C, N12D, etc. These are the first four characters of PSU_Code.)
CBSA_Code	Character \$5	CBSA code from the March 2020 definitions
County_Population	Numeric	Number of people in the county (2020 census)
PSU_Population	Numeric	Number of people in the PSU (2020 census)
Stratum_Population	Numeric	Number of people in the stratum (2020 census)
County_Latitude	Numeric	Population center of the county (the <i>demographic</i> center, not the geographic center)
County_Longitude	Numeric	Population center of the county (the <i>demographic</i> center, not the geographic center)
County_Area_Square_Miles	Numeric	County area in square miles (land plus water)
County_Land_Square_Miles	Numeric	County area in square miles (land)
County_Water_Square_Miles	Numeric	County area in square miles (water)

Most of the variables are self-explanatory. However, a few need some explanation. The main one is “PSU_Code.” It has eight characters. The first four characters identify the stratum; then there is a decimal point; and then there are three more characters that identify the specific PSU within the stratum. Examples include S35A.001 for Washington-Arlington-Alexandria, DC-VA-MD-WV, and N11B.001 for Hartford-East Hartford-Middletown, CT. The characters have the following meaning:

- 1st character: S, N, R (self-representing, non-self-representing, “rural”)
- 2nd character: Region (1,2,3,4)
- 3rd character: Division (1,2,...,9)
- 4th character: Unique stratum identifier (A,B,C,...)
- 5th character: Decimal point to separate the stratum and PSU
- 6th through 8th characters: Unique PSU identifier within the stratum (001,002,003,...)

Most of the time the characters to the right of the decimal point are ignored because they are only of academic interest. That is because CE selects only one PSU per stratum, which means there is a one-to-one correspondence between the strata in the survey and the PSUs in the sample. For example, as the table below shows, Stratum=N11B has four PSUs: Hartford-East Hartford-Middletown, CT; New Haven-Milford, CT; Bridgeport-Stamford-Norwalk, CT; and, and Barnstable Town, MA. However, since Hartford-East Hartford-Middletown, CT was selected for the sample, it is the only PSU in the stratum that most people ever see, so most people refer to it as PSU=N11B instead of Stratum=N11B or PSU=N11B.001. We will use that convention ourselves for the remainder of this memo.

The 4 PSUs in Stratum=N11B			
Stratum	PSU_Cod e	PSU_Name	Selected
N11B	N11B.001	Hartford-East Hartford-Middletown, CT	Y
N11B	N11B.002	New Haven-Milford, CT	N
N11B	N11B.003	Bridgeport-Stamford-Norwalk, CT	N
N11B	N11B.004	Barnstable Town, MA	N

Also “PSU_Name” is the PSU’s name according to the March 2020 CBSA definitions; “CBSA_Code” is the PSU’s five-character code according to the March 2020 CBSA definitions; and “PSU_Type” indicates whether the PSU is a metropolitan CBSA, a micropolitan CBSA, or a non-CBSA area according to the March 2020 CBSA definitions.

Here is an example of what the database looks like for stratum N49L. It is a group of “N” PSUs in the West region and the Pacific division. The stratum has 3 PSUs (Sacramento, San Jose, Oxnard) and 7 counties (El Dorado, Placer, Sacramento, Yolo, San Benito, Santa Clara, Ventura). Sacramento is the PSU selected to represent the stratum, which can be seen by the letter “Y” in the column labeled “Selected.” That particular PSU has four counties and its population is 2,397,382 (= 191,185 + 404,739 + 1,585,055 + 216,403). The population of the whole stratum is 5,241,693, so its stratum-to-PSU inflation factor will be 2.186 (= 5,241,693 / 2,397,382).

Stratum	PSU Code	PSU Name	Selected	State FIPS	County FIPS	State Name	County Name	County Population	PSU Population	Stratum Population
N49L	N49L.001	Sacramento, CA	Y	06	017	CA	El Dorado	191,185	2,397,382	5,241,693
N49L	N49L.001	Sacramento, CA	Y	06	061	CA	Placer	404,739	2,397,382	5,241,693
N49L	N49L.001	Sacramento, CA	Y	06	067	CA	Sacramento	1,585,055	2,397,382	5,241,693
N49L	N49L.001	Sacramento, CA	Y	06	113	CA	Yolo	216,403	2,397,382	5,241,693
N49L	N49L.002	San Jose, CA	N	06	069	CA	San Benito	64,209	2,000,468	5,241,693
N49L	N49L.002	San Jose, CA	N	06	085	CA	Santa Clara	1,936,259	2,000,468	5,241,693
N49L	N49L.003	Oxnard, CA	N	06	111	CA	Ventura	843,843	843,843	5,241,693

Note: The county, PSU, and stratum populations over the entire United States sum to 331,449,281, which is the Census Bureau’s official estimate of the U.S. resident population on April 1, 2020 (the 2020 decennial census). When working with and manipulating the database, the best way of verifying the accuracy of one’s computations is to look for three numbers. There should be 3,144 counties; 1,492 PSUs; and 331,449,281 people.

VIII. Other Aspects of CE’s Sample Design

The purpose of this memo is only to provide PSU definitions for CE’s 2020 census-based sample design. Other aspects of the redesign, such as the sample size, will be covered in separate memos.

cc	<u>CPI/CE Area Selection Team</u>	<u>BLS</u>	<u>Census</u>
:	Asia Anuwa (SMD)	Janel Brattland (DCES)	Michael Bagley (ADDP)
	Stephen Ash (SMD)	Rob Cage (CPI)	James Farber (DSMD)
	Eric Clover-Wadel (DCPPI)	Brett Creech (DCES)	Rachel Gliozzi (DSMD)
	Melissa Edwards (DCES)	Scott Curtin (DCES)	John Gloster (ADDP)
	Steven Joering (OFO)	Robert Eddy (OPLC)	Eloise Parker (ADDP)
	Bill Johnson (SMD)	Laura Erhard (DCES)	Alicia Walker (FLD)
	Chris Miller (DCPPI)	Kirk Hagemeyer (SMD)	Michael White (DSMD)
	Brian Nix (SMD)	Sharon Krieger (SMD)	
	David Swanson (SMD)	Steven Paben (SMD)	
	Alek Traczyk (SMD)	Barry Steinberg (SMD)	
	Alice Yu (SMD)	Anya Stockburger	

(CPI)
Lauren Vermeer
(SMD)

DRAFT

Appendix 1. U.S. Consumer Expenditure Survey: 2020 Census-Based Sample Design (91 PSUs)

Division 1 (New England), Northeast Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
S11A	Boston-Cambridge-Newton, MA-NH	MA: Essex, Middlesex, Norfolk, Plymouth, Suffolk NH: Rockingham, Strafford	4,941,632	4,941,632
N11B	Hartford-East Hartford-Middletown, CT	CT: Capitol, Lower Connecticut River Valley	1,150,473	3,346,659
N11C	Springfield, MA	MA: Franklin, Hampden, Hampshire	699,162	3,333,200
N11D	Burlington-South Burlington, VT	VT: Chittenden, Franklin, Grand Isle	225,562	1,701,880
N11E	Pittsfield, MA	MA: Berkshire	129,026	1,132,074
R11A	Addison, VT	VT: Addison	37,363	660,760

Division 2 (Middle Atlantic), Northeast Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
S12A	New York-Newark-Jersey City, NY-NJ-PA	NY: Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Rockland, Suffolk, Westchester NJ: Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union PA: Pike	20,140,470	20,140,470
S12B	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	PA: Bucks, Chester, Delaware, Montgomery, Philadelphia NJ: Burlington, Camden, Gloucester, Salem DE: New Castle MD: Cecil	6,245,051	6,245,051
N12C	Pittsburgh, PA	PA: Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, Westmoreland	2,370,930	4,392,090
N12D	Buffalo-Cheektowaga, NY	NY: Erie, Niagara	1,166,902	3,010,523
N12E	Rochester, NY	NY: Livingston, Monroe, Ontario, Orleans, Wayne, Yates	1,090,135	2,044,456
N12F	Reading, PA	PA: Berks	428,849	2,371,021
N12G	Kingston, NY	NY: Ulster	181,851	1,587,894
N12H	Chambersburg-Waynesboro, PA	PA: Franklin	155,932	2,505,473
R12A	Delaware-Sullivan, NY	NY: Delaware, Sullivan	122,932	759,757

Division 3 (East North Central), Midwest Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
S23A	Chicago-Naperville-Elgin, IL-IN-WI	IL: Cook, DeKalb, DuPage, Grundy, Kane, Kendall, Lake, McHenry, Will IN: Jasper, Lake, Newton, Porter WI: Kenosha	9,618,502	9,618,502
S23B	Detroit-Warren-Dearborn, MI	MI: Lapeer, Livingston, Macomb, Oakland, St. Clair, Wayne	4,392,041	4,392,041
N23C	Cincinnati, OH-KY-IN	OH: Brown, Butler, Clermont, Hamilton, Warren KY: Boone, Bracken, Campbell, Gallatin, Grant, Kenton, Pendleton IN: Dearborn, Franklin, Ohio, Union	2,256,884	4,395,810
N23D	Cleveland-Elyria, OH	OH: Cuyahoga, Geauga, Lake, Lorain, Medina	2,088,251	4,581,867
N23F	Milwaukee-Waukesha, WI	WI: Milwaukee, Ozaukee, Washington, Waukesha	1,574,731	3,374,770
N23I	Janesville-Beloit, WI	WI: Rock	163,687	6,656,008
N23K	Indianapolis-Carmel-Anderson, IN	IN: Boone, Brown, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Putnam, Shelby	2,111,040	4,621,876
N23L	Green Bay, WI	WI: Brown, Kewaunee, Oconto	328,268	2,883,718
N23M	Terre Haute, IN	IN: Clay, Parke, Sullivan, Vermillion, Vigo	185,031	2,878,687
R23A	Hardin-Wyandot, OH	OH: Hardin, Wyandot	52,596	301,222
R23B	Holmes, OH	OH: Holmes	44,223	2,698,641

Division 4 (West North Central), Midwest Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
S24A	Minneapolis-St. Paul-Bloomington, MN-WI	MN: Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Le Sueur, Mille Lacs, Ramsey, Scott, Sherburne, Washington, Wright WI: Pierce, St. Croix	3,690,261	3,690,261
S24B	St. Louis, MO-IL	MO: Franklin, Jefferson, Lincoln, St. Charles, St. Louis, Warren, St. Louis City IL: Bond, Calhoun, Clinton, Jersey, Macoupin, Madison, Monroe, St. Clair	2,820,253	2,820,253
N24D	Wichita, KS	KS: Butler, Harvey, Sedgwick, Sumner	647,610	4,992,147
N24E	Lincoln, NE	NE: Lancaster, Seward	340,217	2,489,617
N24H	St. Cloud, MN	MN: Benton, Stearns	199,671	5,466,283
R24A	Crawford-Gasconade-Iron-Washington, MO	MO: Crawford, Gasconade, Iron, Washington	70,901	2,734,097
R24B	Meeker-Renville-Sibley, MN	MN: Meeker, Renville, Sibley	52,959	336,192
R24C	Southeastern Nebraska	NE: Johnson, Nemaha, Otoe, Pawnee, Richardson	38,691	160,902

Division 5 (South Atlantic), South Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
S35A	Washington-Arlington-Alexandria, DC-VA-MD-WV	DC: District of Columbia VA: Arlington, Clarke, Culpeper, Fairfax, Fauquier, Loudon, Madison, Prince William, Rappahannock, Spotsylvania, Stafford, Warren, Alexandria City, Fairfax City, Falls Church City, Fredericksburg City, Manassas City, Manassas Park City MD: Calvert, Charles, Frederick, Montgomery, Prince George's WV: Jefferson	6,385,162	6,385,162
S35B	Miami-Fort Lauderdale-Pompano Beach, FL	FL: Broward, Miami-Dade, Palm Beach	6,138,333	6,138,333
S35C	Atlanta-Sandy Springs-Alpharetta, GA	GA: Barrow, Bartow, Butts, Carroll, Cherokee, Clayton, Cobb, Coweta, Dawson, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Haralson, Heard, Henry, Jasper, Lamar, Meriwether, Morgan, Newton, Paulding, Pickens, Pike, Rockdale, Spalding, Walton	6,089,815	6,089,815
S35D	Tampa-St. Petersburg-Clearwater, FL	FL: Hernando, Hillsborough, Pasco, Pinellas	3,175,275	3,175,275
S35E	Baltimore-Columbia-Towson, MD	MD: Anne Arundel, Baltimore, Carroll, Harford, Howard, Queen Anne's, Baltimore City	2,844,510	2,844,510
N35F	Charlotte-Concord-Gastonia, NC-SC	NC: Anson, Cabarrus, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Union SC: Chester, Lancaster, York	2,660,329	5,242,048
N35G	Orlando-Kissimmee-Sanford, FL	FL: Lake, Orange, Osceola, Seminole	2,673,376	4,279,224
N35H	Richmond, VA	VA: Amelia, Charles City, Chesterfield, Dinwiddie, Goochland, Hanover, Henrico, King and Queen, King William, New Kent, Powhatan, Prince George, Sussex, Colonial Heights City, Hopewell City, Petersburg City, Richmond City	1,314,434	3,114,108
N35I	Raleigh-Cary, NC	NC: Franklin, Johnston, Wake	1,413,982	4,963,233
N35L	Cape Coral-Fort Myers, FL	FL: Lee	760,822	3,934,031
N35O	Gainesville, FL	FL: Alachua, Gilchrist, Levy	339,247	2,420,826
N35P	Jacksonville, NC	NC: Onslow	204,576	2,651,818
N35R	Gainesville, GA	GA: Hall	203,136	2,879,738
N35S	Punta Gorda, FL	FL: Charlotte	186,847	1,271,140
N35T	Winchester, VA-WV	VA: Frederick, Winchester City WV: Hampshire	142,632	7,058,712
R35A	Central Virginia	VA: Caroline, Essex, King George, Middlesex	78,834	690,246
R35B	Southern Virginia	VA: Halifax, Mecklenburg	64,341	2,305,129
R35C	Eastern Virginia	VA: Lancaster, Northumberland, Richmond, Westmoreland	50,158	149,211

Division 6 (East South Central), South Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
N36A	Louisville/Jefferson County, KY-IN	KY: Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer IN: Clark, Floyd, Harrison, Washington	1,285,439	3,879,172
N36B	Birmingham-Hoover, AL	AL: Bibb, Blount, Chilton, Jefferson, St. Clair, Shelby	1,115,289	4,442,587
N36C	Chattanooga, TN-GA	TN: Hamilton, Marion, Sequatchie GA: Catoosa, Dade, Walker	562,647	3,017,577
N36E	Florence-Muscle Shoals, AL	AL: Colbert, Lauderdale	150,791	5,480,843
R36A	Northwestern Alabama	AL: Franklin, Marion, Winston	84,994	869,088
R36B	Central Kentucky	KY: Casey, Marion, Washington	47,549	1,605,760

Division 7 (West South Central), South Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
S37A	Dallas-Fort Worth-Arlington, TX	TX: Collin, Dallas, Denton, Ellis, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise	7,637,387	7,637,387
S37B	Houston-The Woodlands-Sugar Land, TX	TX: Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, Waller	7,122,240	7,122,240
N37C	San Antonio-New Braunfels, TX	TX: Atascosa, Bandera, Bexar, Comal, Guadalupe, Kendall, Medina, Wilson	2,558,143	4,297,783
N37D	Oklahoma City, OK	OK: Canadian, Cleveland, Grady, Lincoln, Logan, McClain, Oklahoma	1,425,695	5,331,471
N37F	Lafayette, LA	LA: Acadia, Iberia, Lafayette, St. Martin, Vermilion	478,384	2,299,468
N37G	Brownsville-Harlingen, TX	TX: Cameron	421,017	2,304,839
N37H	Amarillo, TX	TX: Armstrong, Carson, Oldham, Potter, Randall	268,691	3,617,045
N37I	Russellville, AR	AR: Pope, Yell	83,644	2,559,064
N37J	Paris, TX	TX: Lamar	50,088	2,876,907
R37A	Northeastern Texas	TX: Rains, Van Zandt, Wood	116,548	2,194,370
R37B	Northern Arkansas	AR: Cleburne, Conway, Van Buren	61,222	466,715

Division 8 (Mountain), West Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
S48A	Phoenix-Mesa-Chandler, AZ	AZ: Maricopa, Pinal	4,845,832	4,845,832
S48B	Denver-Aurora-Lakewood, CO	CO: Adams, Arapahoe, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson, Park	2,963,821	2,963,821
N48C	Las Vegas-Henderson-Paradise, NV	NV: Clark	2,265,461	4,566,830
N48D	Provo-Orem, UT	UT: Juab, Utah	671,185	2,635,101
N48E	Yuma, AZ	AZ: Yuma	203,881	3,549,617
N48F	St. George, UT	UT: Washington	180,279	5,074,188
R48A	Northeastern Utah	UT: Daggett, Duchesne	20,531	1,280,660

Division 9 (Pacific), West Region

PSU	PSU Name	PSU Definition (State and County)	PSU Population	Stratum Population
S49A	Los Angeles-Long Beach-Anaheim, CA	CA: Los Angeles, Orange	13,200,998	13,200,998
S49B	San Francisco-Oakland-Berkeley, CA	CA: Alameda, Contra Costa, Marin, San Francisco, San Mateo	4,749,008	4,749,008
S49C	Riverside-San Bernardino-Ontario, CA	CA: Riverside, San Bernardino	4,599,839	4,599,839
S49D	Seattle-Tacoma-Bellevue, WA	WA: King, Pierce, Snohomish	4,018,762	4,018,762
S49E	San Diego-Chula Vista-Carlsbad, CA	CA: San Diego	3,298,634	3,298,634
S49F	Urban Honolulu, HI	HI: Honolulu	1,016,508	1,455,189
S49G	Anchorage, AK	AK: Anchorage, Matanuska-Susitna	398,328	540,186
N49H	Portland-Vancouver-Hillsboro, OR-WA	OR: Clackamas, Columbia, Multnomah, Washington, Yamhill WA: Clark, Skamania	2,512,859	3,826,789
N49I	Santa Rosa-Petaluma, CA	CA: Sonoma	488,863	3,456,846
N49J	Chico, CA	CA: Butte	211,632	3,142,008
N49K	Moses Lake, WA	WA: Grant	99,123	2,145,810
N49L	Sacramento-Roseville-Folsom, CA	CA: El Dorado, Placer, Sacramento, Yolo	2,397,382	5,241,693
N49M	Eugene-Springfield, OR	OR: Lane	382,971	1,669,038
N49N	Yuba City, CA	CA: Sutter, Yuba	181,208	1,570,215
R49A	Tillamook, OR	OR: Tillamook	27,390	757,508

Appendix 2. PSUs Being Dropped/Added in the New Sample Design

This table shows the 14 **N-size PSUs that are being dropped** from the sample.

1	N23E	Columbus, OH	8	N35K	Winston-Salem, NC
2	N23 G	Dayton-Kettering, OH	9	N35M	Ocala, FL
3	N23 H	Flint, MI	10	N35O	Wilmington, NC
4	N23J	Frankfort, IN	11	N35Q	Clarksburg, WV
5	N24 C	Omaha-Council Bluffs, NE-IA	12	N36D	Huntsville, AL
6	N24 G	Brookings, SD	13	N36F	Meridian, MS
7	N35J	Greenville-Anderson, SC	14	N37E	Baton Rouge, LA

This table shows the 14 **N-size PSUs that are being added** to the sample.

1	15540	Burlington-South Burlington, VT	8	41060	St. Cloud, MN
2	38340	Pittsfield, MA	9	23580	Gainesville, GA
3	28740	Kingston, NY	10	39460	Punta Gorda, FL
4	16540	Chambersburg-Waynesboro, PA	11	49020	Winchester, VA-WV
5	26900	Indianapolis-Carmel-Anderson, IN	12	40900	Sacramento-Roseville-Folsom, CA
6	24580	Green Bay, WI	13	21660	Eugene-Springfield, OR
7	45460	Terre Haute, IN	14	49700	Yuba City, CA

This table shows the 10 **R-Size PSUs that are being dropped** from the sample.

1	R12G	Northeast Pennsylvania
2	R23K	Northern Michigan
3	R24G	Northern Missouri
4	R24H	Northeast Nebraska
5	R35S	Southwest West Virginia
6	R36G	Eastern Kentucky
7	R36H	Western Tennessee
8	R48G	Ravalli, MT
9	R48H	Lincoln, NM
10	R48I	Gooding, ID

This table shows the 10 **R-Size PSUs that are being added** to the sample.

1	R0107	Franklin-Marion-Winston, AL
2	R2107	Casey-Marion-Washington, KY
3	R2715	Meeker-Renville-Sibley, MN
4	R2909	Crawford-Gasconade-Iron-Washington, MO
5	R3117	Johnson-Nemaha-Otoe-Pawnee-Richardson, NE
6	R3603	Delaware-Sullivan, NY
7	R3902	Hardin-Wyandot, OH
8	R4902	Daggett-Duchesne, UT
9	R5106	Caroline-Essex-King George-Middlesex, VA
10	R5109	Lancaster-Northumberland-Richmond-Westmoreland, VA