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# The CPS Explores Using the Internet

*by Lisa Clement and Kyra Linse*

The Current Population Survey (CPS), sponsored jointly by the U.S. Bureau of Labor Statistics (BLS) and the U.S. Census Bureau, has been a source of data on employment and earnings for decades. Over the last few years, however, the CPS, like many other surveys, has experienced a slow decline in response rates. A review of paradata has found that one of the main reasons for non-response is not just refusal to participate but rather the interviewers are unable to make contact with the respondent (perhaps due to respondent avoidance or inconvenient times). This has led to an effort to think of new ways to contact respondents and reduce respondent burden so that they may be more likely to answer the CPS over the full eight months of interview.

A team composed of Census Bureau and BLS staff is researching the possibility of using the Internet as a data collection mode as well as a tool to help increase response rates. We foresee that, in the future, we could collect email addresses from our respondents in the first month of interview. In the following months, we could then send an email message to the respondent with a secure link so that respondent can complete the CPS over the Internet. This approach could help improve response rates as well as lower the costs of interviewing.

The use of the Internet for the CPS is not limited to just an additional survey mode. Email could be used to allow the respondent to set up a convenient time to meet with the interviewer, reducing travel costs. Another use could also be as simple as a Thank You message with information that lets them know their response is making our data better.

Our research has just begun. Currently we are taking steps to field a set of questions to collect email addresses and to get the respondent's reaction to the use of the Internet as a response mode. We are also reviewing the questionnaire to determine what language and questions need to change in order for it to be an understandable self-administered questionnaire.

Some of the main obstacles that the team must tackle include developing a universal email message that is not blocked by spam filters and that works for all types of respondents, regardless of their level of computer literacy. Additionally, the ever-present concerns of security and confidentiality must be taken into account. Many challenges must be resolved before the Internet can be used as a mode or tool for the CPS, but we are moving forward and will keep the CPS current.

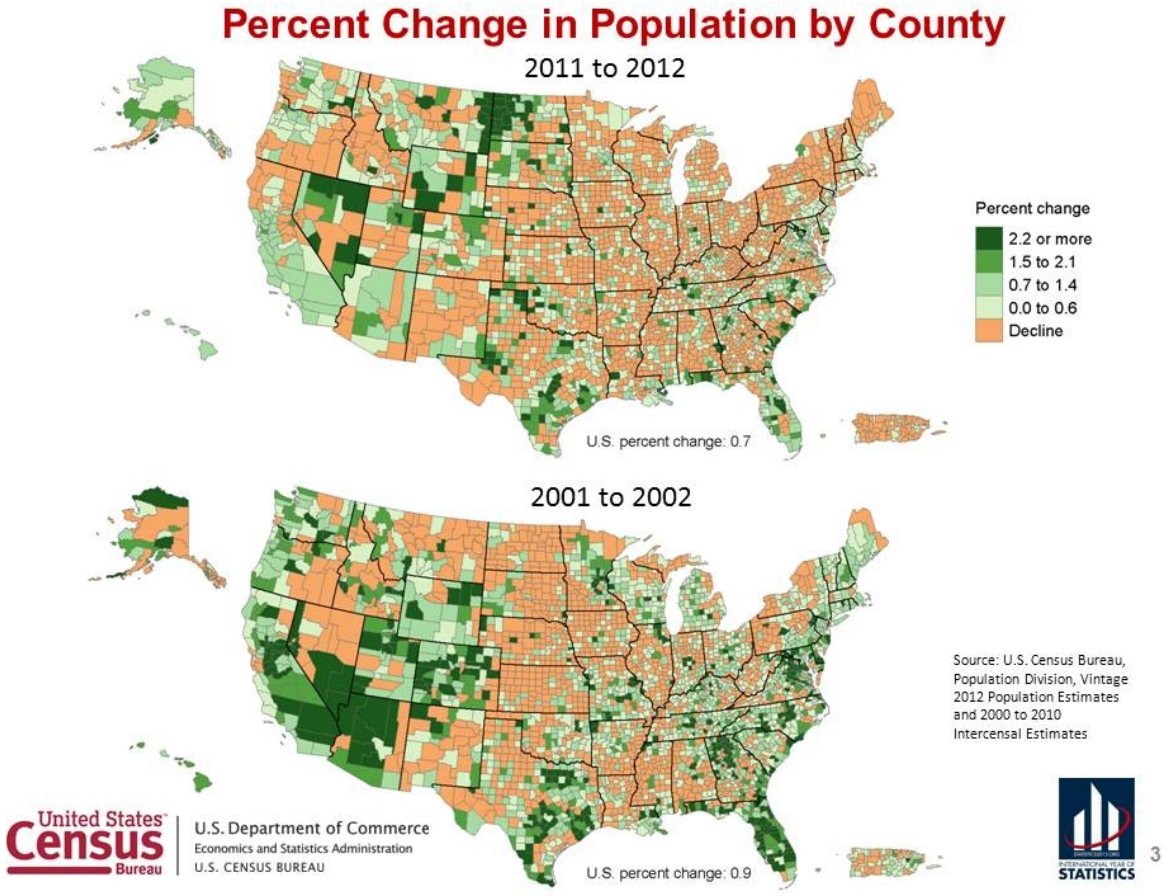
# New Pop Estimates for Counties and Metro/Micro Areas

*by Marc J. Perry*

On March 14, 2013, the Census Bureau released July 1, 2012 population estimates for the nation's counties as well as metropolitan and micropolitan statistical areas, which use counties as their building block. These population estimates were created by updating data from the most recent decennial census in 2010 with data on births, deaths, and both domestic and international migration. In addition, these metro and micro area population estimates are the first set of population estimates using the most recent delineation of metro and micro areas announced by the Office of Management and Budget in late February (which was the subject of an article in the March issue).

For many demographers and geographers, these new population estimates were further evidence of how patterns of population growth and decline within the country have changed in recent years. While most of the country's overall population growth continues to occur in the more populous metro areas of the South and West, some of the fastest population growth this past year was in predominantly rural areas, such as western North Dakota and eastern Montana, which had been experiencing population declines only a few years earlier. North Dakota, whose population in 2010 was smaller than in 1930, was the fastest-growing state between 2011 and 2012 and contains some of the country's fastest-growing counties and micro areas. While there are numerous reasons for local shifts in population growth, for many counties the turnaround has been driven by growth of the oil and natural gas sector.

A March 22 C-SPAN 'America by the Numbers' segment examined these recent population estimates with a series of graphics and maps, including the below maps that illustrate how county-level growth patterns have changed from ten years ago. In these two maps we see population growth by county for 2011 to 2012 (the top map) and 2001-2002 (the bottom map). For both maps, the counties shaded in green saw population growth; those in orange had population declines. The darkest shaded counties had the fastest growth, increasing by 2.2 percent or more. To put it in context, the U.S. population grew 0.7 percent last year, so 2.2 percent growth is approximately three times as fast. The geographic patterns of the two maps are quite different, in terms of both the relative numbers of growing and declining counties and where they are located. Many more counties were growing between 2001 and 2002, including most counties along the Eastern Seaboard from New England down to Florida, the larger metro areas of Texas, and large parts of Colorado, Utah, Arizona, southern Nevada, and the interior of California.




More information on metro and micro areas, including complete lists of the new 2013 areas and their components, is available at the Census Bureau's "Metropolitan and Micropolitan Statistical Areas" website, at <https://www.census.gov/population/metro/>. In the coming months, the Census Bureau will release 2012 estimates of the total population of cities and towns, as well as national, state, and county population estimates by age, sex, race, and Hispanic origin. More information on the Population Estimates Program is available at

<https://www.census.gov/popest/> and the archived C-SPAN segment is available at <https://www.census.gov/newsroom/cspan/>.

# Occupational Change Data Captured in Tree Maps

*by Jennifer Day*

This month, we presented a poster at the Population Association of America (PAA) Annual Meetings in New Orleans, La. featuring our new Equal Employment Opportunity (EEO) Tabulation based on American Community Survey data. Produced after each decennial census over the past 5 decades, the EEO Tabulation provides an in-depth view of the diversity of the American workforce by detailed occupation across many geographic entities. The current EEO tabulation contains more than 19 billion statistics. Our goal for the PAA poster was to highlight uses and features of the tabulation.

One of the figures in our poster, shown here, is a tree map showing the gender shift by occupation since 2000. The tree map is a nifty figure used to display concisely and elegantly a very large number of categories that, typically, are difficult to present graphically. Developed by Ben Shneiderman, a computer science professor at University of Maryland and a recent speaker at the Census Bureau, the first tree map revealed efficiencies in shared computer storage space by mapping the hierarchical tree of his department's hard drives.

In our tree map, we show a change in labor force representation (or share) of men and of women between two time periods for almost 500 occupations, while indicating the extent of this shift and the size of the occupation group relative to other occupations. The relative size of the block signifies the size of the occupation; color shade and intensity shows the shift in gender representation, i.e., the deeper the color, the larger the shift. A deeper blue shade indicates a greater proportion of men in the current year than in 2000 for each occupation; likewise, the deeper orange color indicates a greater proportion of women in the current year than in 2000 for the occupation. A lighter shade is a modest gender shift in the occupation sex ratio, and a white block represents no shift. For easier comprehension, we arranged the occupations in the figure by their 22 broad occupation groups, starting with Management occupations on the top left, and ending with Material moving occupations on the bottom right.

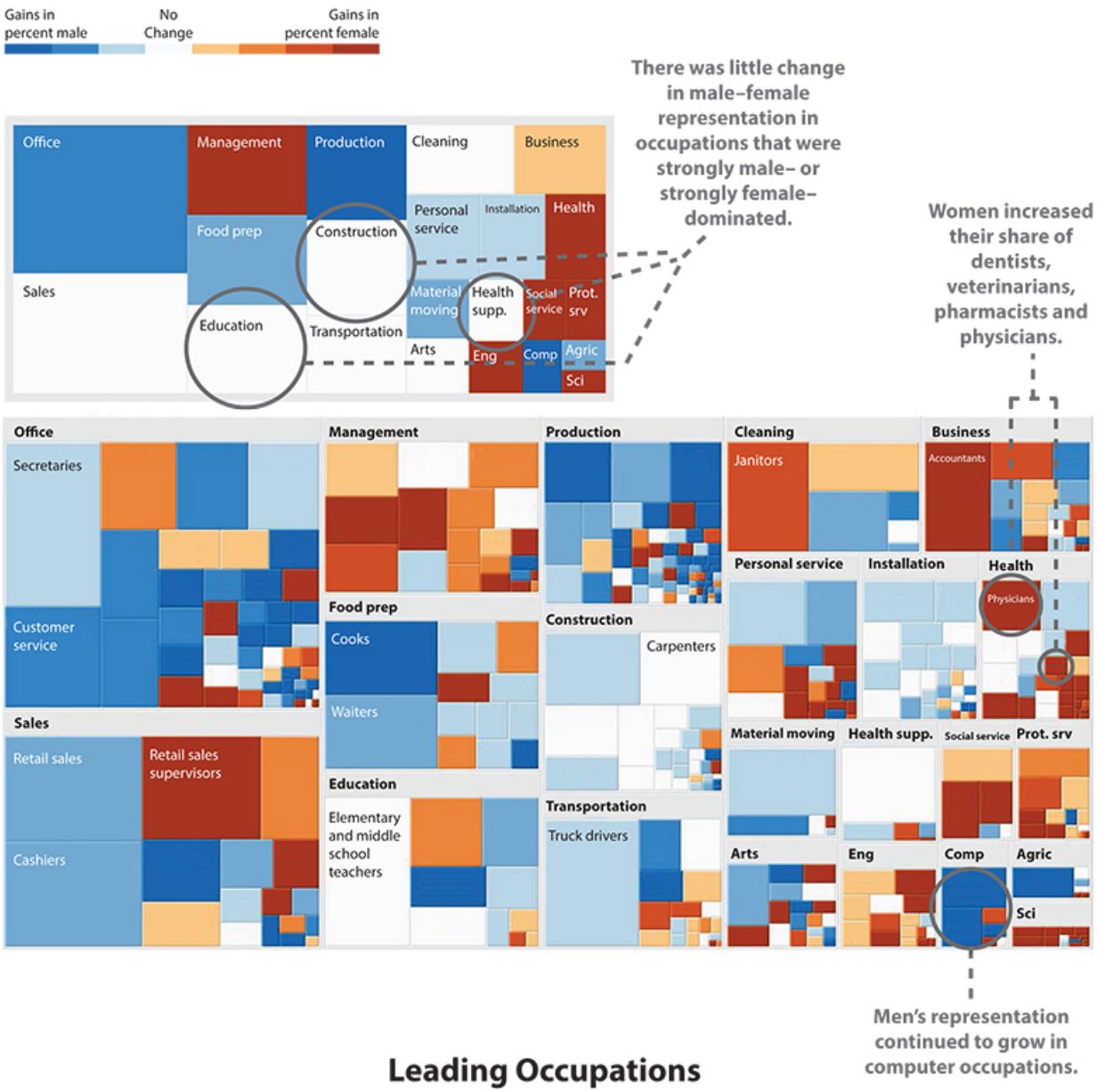
Overall, men's representation grew in computer occupations and in some production occupations. We also see an increase in women's representation among many health care occupations, particularly among dentists, veterinarians, and physicians. Little changed among occupations that were mostly male- or female-dominated, such as construction workers and school teachers. To view the entire poster, see https://www.census.gov/people/io/publications/wp_posters.html

For more information on the EEO tabulation, please visit https://www.census.gov/people/eeotabulation/
If you have any questions about the EEO tabulation, please contact the Demographic Directorate's Industry and Occupation Statistics Branch at 301-763-3239.

## Shifting occupational shares by sex: 2000 to 2006-2010

For each occupation group, the change in representation is shown by color and intensity. The deeper the color, the larger the shift.

**Deeper blue shades indicate gains in percent male.**
**Deeper orange shades indicate gains in percent female.**




## Leading Occupations

**Men:**

- Truck drivers.....3.2M
- Miscellaneous managers.....2.1M
- Freight, stock, and material moving .....1.9M

**Women:**

- Secretaries and administrative assistants .....3.8M
- Cashiers .....2.8M
- Elementary and middle school teachers.....2.7M

Source: U.S. Census Bureau, 2000 and 2006-2010 Equal Employment Opportunity Tabulation

# The 2012 Economic Census

The Economic Census is the U.S. Government's official five-year measure of American business and the economy. Collected for years ending in "2" and "7," economic census results serve as the foundation for the gross domestic product (GDP) and other indicators of economic performance. This cornerstone of U.S. business activity provides an essential benchmark for our nation's economic indicators.

Many people rely on economic census data. Chambers of Commerce rely on statistics from the economic eensus to promote economic development in their industries and local areas. Business associations use economic census statistics for strategic planning. Businesses also use the information to research and identify new markets for their products or services. Government offices, at every level, also rely on economic statistics for making important decisions affecting cities, counties and states.

Late last year, 2012 Economic Census forms were sent to a little over 4 million of the 7 million business locations with paid employees in the United States, as well as to businesses in Puerto Rico, Northern Marianas, American Samoa, Guam, and the Virgin Islands. These business locations have received report forms tailored to their particular industry, making filing easier than ever.

The information collected in the economic census is critical to measuring the health of the U.S. economy. The Census Bureau recognizes that reporting this information imposes a burden on the business community, but has taken steps to minimize the burden and facilitate reporting. Businesses with four or fewer paid employees will have information collected from a small sample, excusing almost 3 million small locations from having to file. However, it is very important for small businesses that received an economic census report form to respond because their response represents 10 other small businesses.

Businesses with multiple locations received a form for each location, mailed generally to company headquarters. It is important that they return each completed form so the Census Bureau can publish detailed industry statistics for small geographic areas, such as towns, cities, and places.

Economic census forms were due February 12, 2013, but it is not too late to respond. Filing extensions are still being granted to businesses that need more time to respond. Responding to the economic census is easier than ever, as businesses of all sizes are now able to report electronically. Businesses with only one location can report directly through an online questionnaire. Those with more than one location can use downloadable software with a spreadsheet-style option and use it to return their data by uploading a file to a secure Census Bureau website. Businesses looking to request time extensions, get help with their form and file electronically should check out <www.econhelp.census.gov>.

For detailed information about the value of the economic census, visit <business.census.gov>. The site includes video testimonials from business owners, government officials, and other key individuals. It also provides examples of how economic census statistics are used. First statistics from the 2012 Economic Census are expected to be published in December of this year.

# Respondent Advocate Position Created at the Census Bureau

The Census Bureau recently appointed Tim Olson to serve as the agency's first Respondent Advocate. Tim officially starts in April after having served nearly 20 years in the bureau's Field Division managing censuses and surveys at both the regional and national levels. Tim also oversaw the 2010 Census partnership program, which recruited more than 257,000 local organizations that urged their constituents to participate in the census.

The Census Bureau's Respondent Advocate will represent the interests of respondents in Census Bureau surveys and censuses. Since this is a new position at the Census Bureau, Tim will initially identify "survey hot

spots" that negatively affect respondents and then seek out potential solutions that will foster a more positive experience with the Census Bureau. For example, the respondent advocate will look at current messaging and communication channels used with the more than 5 million households included in Census Bureau surveys each year during the intercensal period and determine if improvements can be made.

Tim's responsibilities will include working with respondents who feel dissatisfied with their survey experience, Congressional Offices that have direct interaction with respondents, and other major stakeholders. When surveys are in the design phase, Tim will work with subject matter areas to ensure that questions asked of respondents are easy to understand and are as non-invasive as possible. Tim will advise Census Bureau service providers, such as the respondent correspondence unit, call centers, and regional offices, to encourage effective interactions with respondents. He will also elevate throughout the agency an increased consideration of respondents' needs during the conduct of all censuses and surveys.

Tim is looking forward to these new responsibilities and representing the voice of our most valued resource – the respondent.

# The New U.S. Census Bureau Population Clock

In April, the U.S. Census Bureau launched its new, redesigned Population Clock. The Pop Clock is located at: <www.census.gov/popclock>.

One of the most frequently visited parts of the Census Bureau website is the Pop Clock. The Bureau is revamping the Pop Clock page to highlight the population estimates and projections data available on the website.

New features include:
**U.S. Population Growth** - select a date to display data for any given day, month, and year
**Population Growth by Region** - hover by region and a series of percentages will appear
**Age Sex Pyramid** - press "play" or hover over a year to see the data
**Most Populous and High Density** - select a county or state and link to QuickFacts to discover more detailed data about your selection

The U.S. POP Clock is based on a series of short-term projections for the resident population of the United States. This includes people whose usual residence is in the 50 states and the District of Columbia. These projections do not include members of the Armed Forces overseas, their dependents, or other U.S. citizens residing outside the United States.

The projections are based on a monthly series of population estimates starting with the April 1, 2010 resident population from the 2010 Census.

At the end of each year, a new series of population estimates, from the census date forward, is used to revise the postcensal estimates, including the population clock projections series. Once a series of monthly projections is completed, the daily population clock numbers are derived by interpolation. Within each calendar month, the daily numerical population change is assumed to be constant, subject to negligible differences caused by rounding.

The Pop Clock app is downloadable, embeddable, and can be shared on the web via e-mail, Facebook, and Twitter.

# The Census Bureau Releases Population Bracketology

*by Marjorie Hanson*

On March 18, 2013, the Census Bureau released Population Bracketology, an interactive data visualization game with two interactive brackets in which players try to pick the most populous states or the most populous metro areas. The game provides a new, innovative way to promote the population data available on the Census Bureau's web site. The objective is to pick which of two metro areas or two states has the larger population.

Begin the game by choosing a geographic level: metro areas or states. Visitors click on the name in each matchup that they think has the larger population. Green shows a correct answer, red indicates an incorrect answer. Opposing names are shown for the next round, and players choose again.

Five preliminary rounds lead up to the final match to select the most populous of the states or metro areas. Players receive a point for each correct guess, and pop data whizzes can compile a perfect score of 63. At the end, players can mouse over their choices to see the actual population estimates of each pair or to view the data table.

Each time a game is loaded, it generates new city or state match-ups, so the game can be played over and over.

John Metcalfe, writing in *TheAtlantic.com* on April 1,advised that Population Bracketology
". . . is an undeniably addictive pastime for anyone who thinks they know the relative size of every major American city."

Visit https://www.census.gov/dataviz/visualizations/057/ to play Population Bracketology and test your knowledge of population data.

# Recent and Upcoming Data Releases

## May 2013

**Demographic**

**International Programs E-Learning Courses** — The Census Bureau provides instruction on how foreign countries can conduct their own censuses and surveys. (Scheduled for release May 9.)

## April 2013

**Demographic**

**Who's Minding the Kids? Child Care Arrangements: Spring 2011** — April 3 — Report and accompanying detailed tables provide data on child care arrangements of preschoolers and grade-schoolers by various demographic characteristics of employed and nonemployed mothers. They also examine the size of weekly child care payments made by selected characteristics of the family and analyze historical trends. The statistics are national level and come from the Survey of Income and Program Participation. Also released are a series of related maps and detailed tables on child care facilities per capita at the state and county levels, from the 2007 Economic Census. Internet address: <https://www.census.gov/newsroom/releases/archives/children/cb13-62.html>.

**Estimates of Income and Earnings by Selected Demographic Characteristics: 2011 Fourth Quarter** — April 2 — Using data collected by the Survey of Income and Program Participation, this table package presents income and earnings estimates at the individual, family and household level for the fourth quarter (October, November and December) of 2011. Also, quarterly estimates by selected demographic characteristics, such as gender, race/ethnicity, age, marital status and highest level of educational attainment are presented. Monthly income and earnings estimates for individuals, families, and households are also provided for the fourth quarter of 2011. Internet address: <https://www.census.gov/newsroom/releases/archives/income_wealth/cb13-tps39.html>.

**Computer and Internet Use: 2011** — Based on Current Population Survey statistics from July 2011, the Computer and Internet Access in the United States report provides household and individual level analysis of computer use and Internet access, as well as a profile of individual smartphone usage. Analysis of the level of connectivity individuals have to the Internet is also provided. (Scheduled for release in April.)

**Economic Characteristics of Households in the United States: Third Quarter 2011** — This set of tables examines the role of government-sponsored benefit programs and the labor market among the nation's people and households within the economic climate of the third quarter of 2011. Specifically, it presents statistics on average monthly income, participation in government-sponsored social welfare or social insurance programs, and labor force activity during the period. (Scheduled for release in April.)

**Survey of Fishing, Hunting and Wildlife-Associated Recreation: State Reports** — Results from one of the oldest continuing and most comprehensive recreation surveys. Includes information on the number of anglers, hunters and wildlife watchers, as well as how often they participate and how much they spend on their activities. The reports are being released on a state-by-state flow basis alphabetically by state name during the first half of 2013. The list of reports that have been released so far can be found at <https://www.census.gov/prod/www/abs/fishing.html>.

**American Community Survey**

**Rental Housing Market Condition Measures: A Comparison of U.S. Metropolitan Areas from 2009 to 2011 and Physical Characteristics of Housing: 2011** — Two briefs covering the housing market are profiled in this release. *Physical Characteristics of Housing: 2009-2011* highlights statistics on basic physical and structural characteristics of the total housing inventory at the national level and for metropolitan statistical areas based on data collected during the American Community Survey from 2009 to 2011. The report examines types of housing structures, newer and older houses, and the size of the houses measured by the number of rooms.
*Rental Housing Market Condition Measures: A Comparison of U.S. Metropolitan Areas from 2009 to 2011* examines four characteristics of the rental housing stock, including gross rent, gross rent as a percentage of household income, rental vacancy rates, and renter share of total households and describes significant changes between 2009 and 2011 based on the results of the American Community Survey. (Scheduled for release April 16.)

**Economic**

**2012 Annual Survey of State Government Tax Collections** — This survey provides an annual summary of taxes collected by state for up to 25 categories, such as property tax, sales and gross receipts taxes, license taxes, income taxes and others. Data also provide details on tax collections by type of tax imposed and collected by state governments. Internet address: <https://www.census.gov/govs/statetax/> (Scheduled for release April 11.)

**County Business Patterns: 2011** — These statistics provide the only detailed annual information on the number of establishments, employees, and quarterly and annual payroll for nearly 1,200 industries covered at the national, state and county levels. (Scheduled for release April 30.)

## March 2013

### Demographic

**Household Debt in the U.S.: 2000 to 2011 and Measuring the Wealth of U.S. Households** — March 21 — The first study and accompanying detailed tables examine the median value of debt and percent holding debt for households, by type of asset owned and various characteristics of the householder (race and Hispanic origin, age, education, type of household, labor force activity, income quintile, net worth and tenure). The statistics, from the Survey of Income and Program Participation, are provided for the nation and regions. The second study and associated detailed tables examine the median value of assets and percent holding assets for households in 2011 by type of asset owned and householder characteristics similar to those explored in the household debt study. Internet address:
< https://www.census.gov/newsroom/releases/archives/cb13-51.html>.

**Disability Employment Tabulation 2008-2010** — March 14 — This tabulation, based on data collected during the American Community Survey from 2008 to 2010, provides in-depth labor force characteristics of people with a disability, such as employment status, occupation, education and earnings. Additionally, the tabulation provides information about the disability status and diversity of the labor force across several variables, including sex, race, Hispanic origin, age and citizenship. Internet address:
< https://www.census.gov/newsroom/releases/archives/american_community_survey_acs/cb13-47.html>.
**County, Puerto Rico Municipio, Metropolitan and Micropolitan Area Population Estimates: July 1, 2012** — March 14 — Internet tables showing population estimates, rankings and components of change for the nation's counties, county equivalents, metro and micro areas since the 2010 Census and up to July 1, 2012. Internet address:
< https://www.census.gov/newsroom/releases/archives/population/cb13-46.html>.

**Extraction Tool for Local Employment Dynamics Data** — March 28 — A beta version of a new tool allows users to extract data for all 30 Local Employment Dynamics Quarterly Workforce Indicators, including measures of employment, turnover, hiring, job creation, job destruction and average monthly earnings. Primarily for advanced users, the new tool allows users to extract data in comma separated value (.csv format) for specific geographies and industries without first downloading large data sets. Internet address:
<https://www.census.gov/newsroom/releases/archives/employment_occupations/cb13-tps35.html>.

### American Community Survey

**2006-2010 County-to-County Migration Flows Mapper Tool and 2006-2010 County-to-County Characteristics Migration Tables** — March 19 — Based on data collected during the American Community Survey from 2006 to 2010, the county-to-county migration tables give added information on the paths of the 17.3 million people who moved to another county. The tables provide the current county of residence, the county of residence one year ago and the estimated number of movers between the counties. Additional tables provide the same information broken down by selected characteristics: age, sex, race or Hispanic origin.
The Census Bureau has developed its first beta version of an online mapping tool called Census Flows Mapper. It is an interactive application that allows users to select a county in the U.S. and view the outbound, inbound and net migration flows for that county. Additionally, users can choose flows based on characteristics such as age, sex, race or Hispanic origin. The application also allows users to download the data for the flow they have selected, zoom in and out on the map to an area of interest, view additional statistics of the selected county and print their map to a PDF file. Internet address:
< https://www.census.gov/newsroom/releases/archives/american_community_survey_acs/cb13-52.html>.
**Commuting in the United States** — March 5 —These commuting products, based on statistics from the American Community Survey, examine U.S. residents traveling across county and state lines to work. In addition, the products present U.S. workers who have commutes of 60 minutes or longer and workers who have "megacommutes" of at least 90 minutes and 50 miles. Statistics are available for every county in the U.S. that show the number of workers that commute into or out of the county and which counties those commuters travel to and from. A new infographic about home-based workers provides a snapshot of people working from home at least one day per week. Internet address:
<https://www.census.gov/newsroom/releases/archives/american_community_survey_acs/cb13-41.html>.
**New Infographic on Working-at-Home Population** — March 5 — Today many Americans work from home either full or part time. Using data from the 2010 American Community Survey, the 1980, 1990 and 2000

decennial censuses and Survey of Income and Program Participation data spanning 1996 - 2008, the Census Bureau has released an infographic, "Working at Home Is on the Rise," providing a statistical snapshot of the 13.4 million people who work at least one day per week from home. Internet address: <https://www.census.gov/how/index.html>.

**Economic**

**Quarterly Survey of Public Pensions: 4th Quarter 2012** — March 28 — This quarterly survey (formerly known as the Finances of Selected State and Local Government Employee Retirement Systems Survey) provides national summary statistics on the revenues, expenditures and composition of assets of the 100 largest state and local public employee retirement systems in the United States. These 100 systems comprise 89.4 percent of financial activity among such entities, based on the 2007 Census of Governments. This survey presents the most current statistics about investment decisions by state and local public employee retirement systems, which are among the largest types of institutional investors in the U.S. financial markets. These statistical tables are published three months after each calendar quarter and show national financial transactions and trends for the past five years. For more information, please visit <https://www.census.gov/govs/qpr/>.
Historical data from the Quarterly Survey of Public Pensions is available in the Census Bureau's Economic Indicator Database <https://www.census.gov/econ/currentdata/> and
< https://www.census.gov/newsroom/releases/archives/governments/cb13-tps33.html>.

**Information and Communication Technology** — March 28 — These statistics estimate capitalized and noncapitalized spending in 2011 for Information and Communication Technology (ICT) equipment and computer software at the sector level, as well as at the North American Industry Classification System three-digit and selected four-digit industry level. The estimates provide policymakers and the private sector with a relevant, timely and more accurate measure of U.S. companies' total investment in ICT equipment.
These statistics are important for federal agencies to assess future productivity and economic growth prospects, and reconcile important differences between reported production and consumption of technology. Rapid changes in ICT equipment result in these assets having shorter useful lives and being replaced at a much faster rate than other types of equipment. As a result, rather than capitalizing the value of such assets and expensing the cost over two or three years, companies often expense the full cost of such assets during the current annual period. Statistics based only as capitalized expenditures may substantially underreport ICT spending. Internet address: <https://www.census.gov/newsroom/releases/archives/economic_surveys/cb13-tps34.html>.

**Summary of State and Local Government Tax Revenue: 4th Quarter 2012** — March 26 — This summary shows quarterly tax revenue statistics on property, sales, license, income and other taxes. Statistics are shown for individual state governments as well as national estimates of total state and local taxes, including 12-month calculations. This quarterly survey has been conducted continuously since 1962. Internet address: <https://www.census.gov/govs/qtax/> and
<https://www.census.gov/newsroom/releases/archives/miscellaneous/cb13-tps32.html>.