2018 Economic Programs Webinar Series:

Construction and Housing Data from the U.S. Census Bureau

Wednesday, June 20th, 2018

Presenter: Phil Thompson
Economic Programs Webinar Series

• Monthly webinars on key topics
• Topics may change based on attendee feedback
• Presented by Census subject matter experts
• Will include Q&A
• Will be recorded and posted for later reference
• Learn more at https://www.census.gov/data/training-workshops.html
About the Census Bureau

• The U.S. Census Bureau is one of the federal government’s largest statistical agencies.

• We conduct more than 130 surveys each year, including
  - The Decennial Census – the once-a-decade population and housing count of all 50 states and U.S. territories
  - The American Community Survey – the ongoing annual survey of the nation’s population
  - The Economic Census – the official five-year measure of American businesses

• Our mission is to serve as the leading source of quality data about America’s people, places, and economy.
Census Bureau Economic Surveys are a key source for official statistics companies can use:

- Monthly and Quarterly are small sample surveys that provide the most **TIMELY** data available
- Annual surveys have larger samples and provide the most up-to-date **TREND** data available
- Every 5 years, the Economic Census measures all businesses and provides the most **COMPREHENSIVE** data available

These surveys set the standard for U.S. economic statistics, and are fueled by the data provided by individual businesses.
Overview

• Key Economic Terms and Concepts

• Construction Statistics

• Housing and Demographic Statistics

• Business Statistics
Key Economic Terms

• Gross Domestic Product (GDP) - is the value of the goods and services produced by the nation's economy less the value of the goods and services used up in production.

• Recession –The National Bureau of Economic Research (NBER) defines recession as "a period of falling economic activity spread across the economy, lasting more than a few months."

• Establishments (vs. Companies, Firms, etc.)
  • Our collection/tabulation level

• Employers (vs. Nonemployers)
  • Most programs only cover employer businesses
  • Nonemployers: self-employed individuals

• NAICS (North American Industry Classification System)
  • Our primary data dimension
Why are housing and construction important?

• The housing market is a major indicator of the health of the economy and can be used to identify “pivot points” in the business cycle

• People are more likely to buy homes when they feel economic conditions are strong

• The National Association of Home Builders estimates that building the average single-family home generates about 3 jobs

• New housing units indicate population growth; the data are used in the calculation of the Census Bureau’s annual population estimates
Construction is More than 6% of GDP

Census’ Construction Spending Estimates as a Percentage of Gross Domestic Product (GDP)

Source: U.S. Bureau of Economic Analysis (bea.gov)
Construction Statistics
Construction Statistics

New Residential Construction

Building Permits

New Residential Sales

Construction Spending

Characteristics of New Housing
New Residential Construction (NRC)
www.census.gov/starts

• Monthly estimates of single- and multifamily permits, starts, completions, and inventories
  • New single-family houses
    • Both attached (townhouses) and detached
  • New multifamily housing units
    • Apartments, condominiums, senior housing such as assisted living

• Data are typically released on the 12th workday of the month after the reference month

• Release contains both seasonally adjusted annual rate estimates and unadjusted estimates

• Estimates are used by economists, policy makers, manufacturers and retailers
Comparison of Seasonally Adjusted Annual Rates: Permits, Starts, and Lagged Completions (6 mo.)

Single-Family (SF) units

Multifamily (MF) units

Note: Shaded areas are recession dates from the National Bureau of Economic Research, U.S. Business Cycle Expansions and Contractions
Building Permits Survey (BPS)
https://www.census.gov/construction/bps/

• Provides the number and valuation of units authorized by building permits

• Data reported by 20,000 permit issuing jurisdictions, approximately 9,000 are in the monthly sample.

• Only data available at the state and local level

• Local level data are released on the 18th workday after the reference month

• Data are released monthly and annually for the U.S. total and for:
  • 4 Census Regions and 9 Census Divisions
  • Metropolitan Areas
  • States & Counties
  • Individual jurisdictions

• Annual data for 2017 were released May 1st
Strengths of the BPS Data

Leading
• Permits are the most leading residential construction indicator, because the permit is issued before construction begins; the data are a component of the Conference Board’s U.S. Leading Economic Index (available at www.conference-board.org)

Large
• Local governments are surveyed. The large monthly sample is affordable and response rates are high; the reliable BPS data are the foundation for all new residential construction estimates
• The annual survey is a census covering every permit-issuing jurisdiction
• Permits are public information so data are not subject to confidentiality restrictions; all data are online at www.census.gov/permits

Local
• Detailed local data are available both monthly and annually
• The local data are released on the 18th working day of the following month, making them the most timely local economic data from Census!
Texas has led the nation in permit issuance each year since 2006.

Highlights from the 2017 BPS Data
New Residential Sales (NRS)
www.census.gov/newhomesales

• Data comes from the Survey of Construction.

• Data are for single-family homes and include:
  o Number sold
  o Median and average sales price
  o Number of months between construction, completion, and sale
  o Inventories of homes for sale

• Only follows homes built for sale.
  • Does not include homes that are owner built, contractor built, built for rent, or the sale of existing homes.
New Residential Sales (NRS)

www.census.gov/newhomesales

Who uses the data?

• The Bureau of Economic Analysis uses the estimates in development of the national income and product accounts.
• The Federal Reserve Board and Council of Economic Advisers use the estimates to determine the condition of the economy.
• The Department of Housing and Urban Development uses the estimates to develop and evaluate housing programs.
• Manufacturers use estimates to plan production schedules and establish market shares.
• Insurance companies use estimates to adjust rates and establish replacement costs.
• Financial institutions use data to estimate mortgage demand.
Houses Sold and For Sale vs. Existing Home Sales

*Indexed to March

Recession

Sold*

For Sale*

Existing Home Sales**†

† Source: Realtors

Source: U.S. Census Bureau and HUD, New Residential Sales, https://www.census.gov/newhomesales; National Association of Realtors, realtor.org
2017 Annual Total: $1,234
(In Billions of Dollars)

- Private Nonresidential: $436.7 (35%)
- Private Residential Improvements: $190.3 (15%)
- Private Single Family Residential: $264.5 (22%)
- State and Local: $257.1 (21%)
- Federal: $22.7 (2%)
- Private Multifamily: $62.7 (5%)

Source: U.S. Census Bureau, Construction Spending, https://census.gov/constructionspending
April 2018 Total Construction Expenditures
Seasonally Adjusted Annual Rate: 1993-2018

Source: U.S. Census Bureau, Construction Spending, https://www.census.gov/constructionspending
Provides national and regional annual data on the characteristics of new privately-owned residential structures, such as:

- Square footage
- Number of bedrooms and bathrooms
- Type of wall material
- Sales prices

All characteristics are available at a national level, with many available at a regional level

The most recent release was June 1st

https://www.census.gov/construction/chars/
Median Square Feet of Floor Area in New Single-Family Houses Completed

Note: Shaded areas are recession dates from the National Bureau of Economic Research, U.S. Business Cycle Expansions and Contractions
Housing and Demographic Statistics
Housing and Demographic Statistics

Current Population Survey/Housing Vacancy Survey

American Housing Survey

Survey of Market Absorption of New Multifamily Units

Rental Housing Finance Survey

American Community Survey
Current Population Survey/Housing Vacancy Survey
https://www.census.gov/housing/hvs/index.html

Provides current information on the rental and homeowner vacancy rates, and characteristics of units available for occupancy.

Data Sources

- OCCUPIED DATA from the Current Population Survey
- VACANT DATA from the Housing Vacancy Survey

Quarterly CPS/HVS release

Data users include:

- Department of Housing and Urban Development
- Bureau of Economic Analysis
- Federal Reserve Board
- National Association of Homebuilders
- Fannie Mae/Freddie Mac
- Joint Center for Housing Studies
- White House’s Council of Economic Advisers
- Students
- Media

The data are collected monthly and released quarterly (in January, April, July, and October) and annually (in February of the following year).
Current Population Survey/Housing Vacancy Survey

https://www.census.gov/housing/hvs/index.html

• Homeownership rates, rental vacancy rates, and homeowner vacancy rates for...
  • United States
  • By Region (Northeast, Midwest, South, West)
  • By State
  • By Metro/Non-metro areas (inside MSAs, outside MSAs, 75 largest MSAs, central city, suburbs)

• Housing inventories for the U.S. and region

• National homeownership rates by demographic characteristic
  • Age
  • Race/Ethnicity
  • Income Status

• National and Regional characteristics of vacant units
  • rooms in unit
  • bedrooms in unit
  • # of units in structure
  • duration of vacancy
  • year structure built
  • asking rent/sale price
Figure 3.
Annual Rental Vacancy Rates for the United States and Regions: 1968–2017

American Housing Survey
https://www.census.gov/programs-surveys/ahs.html

• Conducted every two years. Re-designed with new sample in 2015.
• Data are available at the national level and for selected metropolitan statistical areas. For 2015, seven states are available (CA, CO, FL, NY, OH, PA TX).

Provides current and continuous panel of data on a wide range of housing and demographic characteristics, including:

• Size and composition of the nation’s housing inventory, vacancies, physical condition of housing units, characteristics of occupants
• Fuel usage, equipment breakdowns, home improvements, mortgages and other housing costs
• People eligible for and beneficiaries of subsidized housing, home values, and characteristics of recent movers
• Rotating topical areas such as food security, access to arts and culture, health characteristics, and eviction risk
Millennial Housing Trends (25- to 34-year-olds)
Structure of Millennial Headed Households

- 39% are married couple households
- 23% are households with non-relatives
- 22% are single-person households
- 14% are unrelated partner households
- 1% other
- 47% are households with children

The Millennial Home

- Own: 34%
- Rent: 66%

Elements of Community

- 86% of millennials have lived in the same residence since 2010
- 56% of millennials have lived in the same residence since 2013

Millennial Homeowners

- 78% first-time homeowners
- $139,900 median purchase price for those 25-29
- $160,000 median purchase price for those 30-34

- 59% used savings or cash on hand for down payment
- 61% have done some home improvement in the past 2 years
- 34% of these households cite energy efficiency as a reason for improvements

Agree that their neighborhood has...
- 80% good schools
- 4% a lot of serious crime

U.S. Department of Housing and Urban Development
Office of Policy Development and Research

United States Census Bureau
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov
Survey of Market Absorption of New Multifamily Units SOMA)

https://www.census.gov/programs-surveys/soma.html

Provides estimates of
- Number of units taken off the market (absorbed)
- Rent and sales price
- Amenities
- Type of building
- Number of units

- Data are collected monthly and estimates are released quarterly and annually
- Estimates are provided at the national and regional levels as well as estimates for approximately 45 metropolitan areas.
- Only source for estimates of rent or price of new multifamily units
Survey of Market Absorption of New Multifamily Units (SOMA)

https://www.census.gov/programs-surveys/soma.html

Figure 4.
Median Asking Rent Unfurnished Rental Apartments by Region: 2016 Completions
(In dollars)

<table>
<thead>
<tr>
<th>Region</th>
<th>Median Asking Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. total</td>
<td>1,480</td>
</tr>
<tr>
<td>Northeast</td>
<td>2,350</td>
</tr>
<tr>
<td>Midwest</td>
<td>1,079</td>
</tr>
<tr>
<td>South</td>
<td>1,396</td>
</tr>
<tr>
<td>West</td>
<td>1,713</td>
</tr>
</tbody>
</table>

The Rental Housing Finance Survey provides a current and continuous measure of financial, mortgage, and property characteristics of rental housing properties in the United States.

The survey focuses on the financing of rental housing properties, with emphasis on new mortgages, refinanced mortgages, or similar devices such as deeds of trust or land contracts, and the characteristics of debt originations. The data are provided at the national level.

The data are used by
- Government and local policy analysts use the data to advise executive and legislative branches about the financial characteristics of the rental housing stock in the United States and the suitability of public policy initiatives and where changes are needed.
- The rental housing industry to benchmark individual project performance against national data to help make better business decisions.

Data are currently available for 2015.
Rental Housing Finance Survey
https://www.census.gov/programs-surveys/rhfs.html

Number and Percentage of Properties and Units

The mean year newest building constructed for all properties is 1961.

The majority of rental properties are single-unit properties.

Excluding single units, properties with 50 or more units have the largest number of total units.


United States Census Bureau
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov
The nation’s most current, reliable, and accessible data source for local statistics on critical planning topics such as age, children, veterans, commuting, education, income, and employment

Surveys about 3.5 million addresses and informs $675 billion of Federal government spending each year

Designed to produce critical information on small areas and small population groups previously collected on the decennial long form

Covers 35+ topics, supports over 300 evidence-based Federal government uses, and produces 11 billion estimates each year

Three key annual data releases:
- 1-year estimates (data for populations >65,000)
- 1-year Supplemental Estimates (data for populations >20,000)
- 5-year estimates (data down to census tract/block group)
### Social
- Ancestry
- Citizenship Status
- Disability Status
- Educational Attainment & School Enrollment
- Fertility
- Grandparents as Caregivers
- Language Spoken at Home
- Marital History; Marital Status
- Migration/Residence 1 Year Ago
- Period of Military Service
- Place of Birth
- Undergraduate Field of Degree
- Veteran Status
- Year of Entry

### Demographic
- Age
- Hispanic or Latino Origin
- Race
- Relationship to Householder
- Sex

### Economic
- Commuting (Journey to Work) & Place of Work
- Employment Status
- Food Stamps/SNAP
- Health Insurance Coverage
- Income and Earnings
- Industry, Occupation, & Class of Worker
- Poverty Status
- Work Status Last Year

### Housing
- Bedrooms
- Computer and Internet Use
- House Heating Fuel
- Kitchen Facilities
- Occupancy/Vacancy Status
- Occupants Per Room
- Plumbing Facilities
- Rent
- Rooms
- Selected Monthly Owner Costs
- Telephone Service Available
- Tenure (Owner/Renter)
- Units in Structure
- Value of Home
- Vehicles Available
- Year Householder Moved into Unit
- Year Structure Built

---

**American Community Survey**

[https://www.census.gov/programs-surveys/acs.html/](https://www.census.gov/programs-surveys/acs.html/)

- **35+ Topics**
- **1000+ Tables**
- **11 Billion Estimates**
Source: U.S. Census Bureau, 2016 American Community Survey 1-Year Estimates, S2504, PHYSICAL HOUSING CHARACTERISTICS FOR OCCUPIED HOUSING UNITS

**Owner-occupied housing units**

```
- 1, detached: 82.5%
- 1, attached: 5.8%
- 2 apartments: 1.2%
- 3 or 4 apartments: 0.9%
- 5 to 9 apartments: 0.8%
- 10 or more apartments: 2.5%
- Mobile home or other type of housing: 6.3%
```

**Renter-occupied housing units**

```
- 1, detached: 28.4%
- 1, attached: 6.4%
- 2 apartments: 7.4%
- 3 or 4 apartments: 10.3%
- 5 to 9 apartments: 11.5%
- 10 or more apartments: 31.5%
- Mobile home or other type of housing: 4.5%
```

**Owner-occupied housing units - Number of Bedrooms**

```
- No bedroom: 0.4%
- 1 bedroom: 2.3%
- 2 or 3 bedrooms: 66.6%
- 4 or more bedrooms: 30.7%
```

**Renter-occupied housing units - Number of Bedrooms**

```
- No bedroom: 7.5%
- 1 bedroom: 5.6%
- 2 or 3 bedrooms: 62.6%
- 4 or more bedrooms: 24.4%
```
Workers in Construction by Occupational Groups

- Production, transportation, and material moving occupations: 4.5%
- Natural resources, construction, and maintenance occupations: 71.1%
- Sales and office occupations: 6.3%
- Service occupations: 0.6%
- Management, business, science, and arts occupations: 17.5%

Source: U.S. Census Bureau, 2016 American Community Survey 1-Year Estimates, C2405, INDUSTRY BY OCCUPATION FOR THE CIVILIAN EMPLOYED POPULATION 16 YEARS AND OVER
Business Statistics
Business Statistics

• Includes information on:
  • Companies and/or Establishments (individual locations)
  • Employment, Payroll, and/or Revenue and value of construction completed
  • Inventories, capital expenditures, product lines, and more
  • Covers almost all sectors of the economy

• Data Programs from Census
  • County Business Patterns
  • Nonemployment Statistics
  • Annual Capital Expenditures Survey (ACES)
  • Economic Census

• Defined by NAICS
County Business Patterns (CBP)
https://www.census.gov/programs-surveys/cbp.html

• Provides the Number of Establishments, employment, first quarter payroll, and annual payroll presented by geographic area, NAICS industry, legal form of organization, and employment size class

• Data are provided at the 2- thru 6-digit NAICS code levels for almost all sectors, including Construction (also includes Agriculture Production, Forestry, and Fishing)

• Data are provided for National, State, Metro, County, ZIP code, and congressional district geographic areas

• Include statistics for businesses with paid employees for Puerto Rico, U.S. Virgin Islands, American Samoa, Guam, and the Northern Mariana Islands

• Useful for studying the economic activity of small areas and analyzing economic changes over time
States with the Largest Increase in Number of Employees from 2015 to 2016 in Specialty Trade Contractors (NAICS 238)

Source: US Census Bureau, 2016 County Business Patterns

- California: 27,905 employees, 6.1% increase
- Florida: 22,450 employees, 9.2% increase
- New York: 19,001 employees, 8.8% increase
Nonemployer Statistics

https://www.census.gov/programs-surveys/nonemployer-statistics.html

- Provides annual statistics for businesses with no paid employees or payroll, are subject to federal income taxes, and have receipts of $1,000 or more within the U.S.

- Data are shown at the National, State, Metro Area, and County levels.

- Cover most NAICS industries excluding crop and animal production; investment funds, trusts, and other financial vehicles; management of companies and enterprises; and public administration.

- Data are shown at the 2- thru 4-digit and selected 5- and 6-digit NAICS code levels for all sectors at a detailed geographic and industry level.

- Data are also provided by legal form of organization (U.S. and state only), receipts, and receipts-size class of establishments (U.S. level only).
States with the Largest Increase in Number of Nonemployer Establishments from 2014 to 2015
Specialty Trade Contractors (NAICS 238)

<table>
<thead>
<tr>
<th>State</th>
<th>Increase</th>
<th>Number of Establishments</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>3.3%</td>
<td>$258,340</td>
</tr>
<tr>
<td>Florida</td>
<td>4.0%</td>
<td>$236,473</td>
</tr>
<tr>
<td>Texas</td>
<td>1.7%</td>
<td>$196,083</td>
</tr>
</tbody>
</table>

Source: US Census Bureau, 2016 Nonemployer Statistics
Annual Capital Expenditures Survey (ACES)

https://www.census.gov/programs-surveys/aces.html

Data from the Annual Capital Expenditures Survey:

• Provide detailed information on capital investment in structures and equipment by nonfarm enterprises

• Provides expenditures on
  o New and Used Structures
  o New and Used Equipment
  o Capitalized Computer Software
  o Capital Leases

• Provides expenditures information by NAICS Industry

• Provides the only comprehensive estimates of annual U.S. capital expenditures data covering all domestic non-farm businesses and detailing investments by type and industry
Capital Expenditures for Construction Industries (ACES)

### Capital Expenditures for Structures and Equipment for Companies with Employees: 2016 and 2016 Revised

<table>
<thead>
<tr>
<th>Capital Expenditures</th>
<th>2016</th>
<th>2016 Revised</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Construction</td>
<td>35.6</td>
<td>33.1</td>
<td>8.4% NS</td>
</tr>
<tr>
<td>Structures</td>
<td>4.3</td>
<td>2.6</td>
<td>66.4%</td>
</tr>
<tr>
<td>Equipment</td>
<td>31.7</td>
<td>30.7</td>
<td>3.3% NS</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, 2016 Annual Capital Expenditures Survey

Note: Detail may not add to total because of rounding.

NS: Not Statistically Significant

See Technical Documentation Methodology Data Quality for information on sampling variability, confidence intervals and statistical significance.
Economic Census

https://www.census.gov/programs-surveys/economic-census.html

- Surveys nearly 4 million businesses, including large, medium and small companies representing all U.S. and Island Area locations and industries

- Conducted once every five (5) years for years ending in 2 and 7

- Profiles the U.S. economy from the national to the local level

- Collects data from the business establishments of companies

  - Most detailed information on the structure of the economy

- Data from Economic Census provide framework for measures
  - Calculation of Gross Domestic Product
  - Calculation of National Income and Product Accounts

- Most recent Economic Census is from 2012
The Construction Sector of the Economic Census covers domestic operations of establishments primarily engaged in these broad types of activities:

- **Building Construction** - by general contractors, specialty trade contractors, design-builders, developers, or construction managers

- **Heavy Construction** - includes work on non-building structures, such as highways, utility related structures, and water projects by general contractors, specialty trade contractors, design-builders, developers, or construction managers

- **Land Subdivision** - represents subdividing and servicing of raw land into lots for sale by a landowner to a builder

- **Specialty Trade Contractors** - represents specialty trade activities, such as plumbing, electrical, masonry, carpentry, painting, excavation, flooring, glass, metal, or concrete work, and other construction activities performed on building and non-building structures

Construction includes –

- New or original construction
- Additions, alterations, rehabilitation, remodeling, or reconstruction; and
- Maintenance, repair, or service work
NAICS 236210 - Industrial Building Construction

Value of construction work by type of construction:

- Additions, alterations, and reconstructions: 2012 - $6.6B, 2007 - $4.4B
- Maintenance and repair: 2012 - $4.7B, 2007 - $3.1B

Total number employed increased by 17% from 63,478 in 2007 to 74,057 in 2012.

Economic Census of Island Areas
https://www.census.gov/data/tables/2012/econ/census/island-areas.html

Provides selected industry, product, and other data for

- Puerto Rico
- U.S. Virgin Islands
- American Samoa
- Guam
- Northern Mariana Islands

Conducted as a part of the Economic Census
Additional Business Statistics

- Manufacturers' Shipments, Inventories, and Orders
- Annual Survey of Manufactures
- Quarterly Financial Report

Wholesale Trade - [https://www.census.gov/econ/wholesale.html](https://www.census.gov/econ/wholesale.html)
- Monthly Wholesale Trade Survey
- Annual Wholesale Trade Survey

Retail Trade - [https://www.census.gov/econ/retail.html](https://www.census.gov/econ/retail.html)
- Monthly Retail Trade Survey
- Annual Retail Trade Survey

Services - [https://www.census.gov/econ/services.html](https://www.census.gov/econ/services.html)
- Quarterly Services Survey
- Service Annual Survey

International Trade - [https://www.census.gov/foreign-trade/index.html](https://www.census.gov/foreign-trade/index.html)
Want to learn more? Check out our Training and Workshops page for training, resources, and “How-to Videos” on business and economic related topics such as:

• Economic Indicators
• Manufacturing
• International Trade
• Government
• Employment
• Healthcare
• Small Business
• NAICS

https://www.census.gov/data/training-workshops.html
Training & Workshops

https://www.census.gov/data/training-workshops.html

Additional training and workshops on topics such as:

- American Community Survey
- Geography
- Measuring America
- People
- Age and Ancestry
- Data Access Tools
Where did all this great data come from, and how can we help ensure it’s high quality?

• Promote usage of the data from our ongoing Monthly, Quarterly, and Annual businesses surveys

• Promote response to these same surveys, including the baseline/benchmark *Economic Census*
About the Economic Census

• The U.S. Census Bureau measures the nation’s population once every 10 years. It also measures U.S. businesses every 5 years with the Economic Census.

• The 2017 Economic Census will be conducted in the second quarter of 2018. Companies report their 2017 year-end numbers. Response due date is June 12th, 2018.

• Response is required by law.

• Responses are confidential. Company data are used for statistical purposes only. The Census Bureau is required by law to keep your information private and secure.

• Response is required online. This reduces the time needed for completion, improves accuracy, and provides significant cost savings for taxpayers.

• Results from the Economic Census are free and available to guide business decisions and policy-making.

• More information can be found at https://www.census.gov/EconomicCensus.
What’s New?

- NAICS updates
  - www.census.gov/eos/www/naics
  - Includes Federal Register Notices

- Increased implementation of the North American Product Classification System (NAPCS)
  - Tabulations by NAPCS will replace NAICS product code tabulations

- Geography – Place and Metro Area changes

- New dissemination system
Summary

Key takeaways are:

• The Census Bureau provides data on construction and housing:

• Data are available on:
  
  • Construction activity, such as building permits, new sales and starts
  
  • Housing and demographic characteristics of the people and organizations that purchase or rent homes and buildings
  
  • Companies that provide construction, such as the number of establishments, employment, payroll, sales, receipts, inventories, capital expenditures, product lines and companies where construction has an impact
The quality data we presented today would not be available without quality response

• If you are asked to respond in our Censuses and surveys, please respond

• If you use our data for research as part of your job, check to see if your company receives and completes our survey questionnaires
  o Please let your leadership know how important the data are in your research

• If you use our data to make decisions that impact others, let people know how important the data are
Economic Programs Webinar Series

• Next webinar is scheduled for August 2\textsuperscript{nd} and will cover the various types of “Professional/Scientific” data available from the Census Bureau.

• Learn more at https://www.census.gov/data/training-workshops.html
Questions?

Contact Me At:
philip.w.thompson@census.gov
301-763-6522

To schedule additional training with a Census Data Dissemination Specialist in your area, please call:
844-Ask-Data
Or email us at:
census.askdata@census.gov
Reference Materials
## Data, Additional Information, and Where to Access

<table>
<thead>
<tr>
<th>Survey</th>
<th>Web Site</th>
<th>Data Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Residential Construction (NRC)</td>
<td><a href="https://www.census.gov/starts">www.census.gov/starts</a></td>
<td><a href="https://www.census.gov/starts">www.census.gov/starts</a></td>
</tr>
<tr>
<td>Building Permits Survey (BPS)</td>
<td><a href="https://www.census.gov/construction/bps/">https://www.census.gov/construction/bps/</a></td>
<td><a href="https://www.census.gov/construction/bps/">https://www.census.gov/construction/bps/</a></td>
</tr>
<tr>
<td>New Residential Sales (NRS)</td>
<td><a href="https://www.census.gov/newhomesales">www.census.gov/newhomesales</a></td>
<td><a href="https://www.census.gov/newhomesales">www.census.gov/newhomesales</a></td>
</tr>
<tr>
<td>Construction Spending</td>
<td><a href="https://www.census.gov/constructorspending">www.census.gov/constructorspending</a></td>
<td><a href="https://www.census.gov/constructorspending">www.census.gov/constructorspending</a></td>
</tr>
<tr>
<td>Characteristics of New Housing</td>
<td><a href="https://www.census.gov/construction/chars/">https://www.census.gov/construction/chars/</a></td>
<td><a href="https://www.census.gov/construction/chars/">https://www.census.gov/construction/chars/</a></td>
</tr>
<tr>
<td>Construction Price Indexes</td>
<td><a href="https://www.census.gov/construction/cpi/">https://www.census.gov/construction/cpi/</a></td>
<td><a href="https://www.census.gov/construction/cpi/">https://www.census.gov/construction/cpi/</a></td>
</tr>
<tr>
<td>Manufactured Housing Survey</td>
<td><a href="https://www.census.gov/programs-surveys/mhs.html">https://www.census.gov/programs-surveys/mhs.html</a></td>
<td><a href="https://www.census.gov/programs-surveys/mhs/data.html">https://www.census.gov/programs-surveys/mhs/data.html</a></td>
</tr>
<tr>
<td>Housing Vacancies and Homeownership</td>
<td><a href="https://www.census.gov/housing/hvs/index.html">https://www.census.gov/housing/hvs/index.html</a></td>
<td><a href="https://www.census.gov/housing/hvs/index.html">https://www.census.gov/housing/hvs/index.html</a></td>
</tr>
<tr>
<td>American Housing Survey</td>
<td><a href="https://www.census.gov/programs-surveys/ahs.html">https://www.census.gov/programs-surveys/ahs.html</a></td>
<td><a href="https://www.census.gov/programs-surveys/ahs/data.html">https://www.census.gov/programs-surveys/ahs/data.html</a></td>
</tr>
<tr>
<td>Survey of Market Absorption (SOMA)</td>
<td><a href="https://www.census.gov/programs-surveys/soma.html">https://www.census.gov/programs-surveys/soma.html</a></td>
<td><a href="https://www.census.gov/programs-surveys/soma/data.html">https://www.census.gov/programs-surveys/soma/data.html</a></td>
</tr>
<tr>
<td>American Community Survey</td>
<td><a href="https://www.census.gov/programs-surveys/acs.html">https://www.census.gov/programs-surveys/acs.html</a></td>
<td><a href="https://www.factfinder.census.gov">www.factfinder.census.gov</a></td>
</tr>
<tr>
<td>Rental Housing Finance Survey</td>
<td><a href="https://www.census.gov/programs-surveys/rhfs.html">https://www.census.gov/programs-surveys/rhfs.html</a></td>
<td><a href="https://www.census.gov/programs-surveys/rhfs/data.html">https://www.census.gov/programs-surveys/rhfs/data.html</a></td>
</tr>
</tbody>
</table>
### Information on Construction Companies

<table>
<thead>
<tr>
<th>Survey</th>
<th>Web Site</th>
<th>Data Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Business Patterns (CBP)</td>
<td><a href="https://www.census.gov/programs-surveys/cbp.html">https://www.census.gov/programs-surveys/cbp.html</a></td>
<td><a href="www.factfinder.census.gov">www.factfinder.census.gov</a></td>
</tr>
<tr>
<td>Annual Capital Expenditures Survey</td>
<td><a href="https://www.census.gov/programs-surveys/aces.html">https://www.census.gov/programs-surveys/aces.html</a></td>
<td><a href="https://www.census.gov/programs-surveys/aces/data/tables.html">https://www.census.gov/programs-surveys/aces/data/tables.html</a></td>
</tr>
<tr>
<td>Economic Census</td>
<td><a href="https://www.census.gov/programs-surveys/economic-census.html">https://www.census.gov/programs-surveys/economic-census.html</a></td>
<td><a href="www.factfinder.census.gov">www.factfinder.census.gov</a></td>
</tr>
<tr>
<td>Economic Census of Island Areas</td>
<td><a href="https://www.census.gov/data/tables/2012/econ/census/island-areas.html">https://www.census.gov/data/tables/2012/econ/census/island-areas.html</a></td>
<td><a href="www.factfinder.census.gov">www.factfinder.census.gov</a></td>
</tr>
<tr>
<td>Longitudinal Employer-Household Dynamics</td>
<td><a href="https://lehd.ces.census.gov/data/">https://lehd.ces.census.gov/data/</a></td>
<td><a href="https://lehd.ces.census.gov/data/">https://lehd.ces.census.gov/data/</a></td>
</tr>
<tr>
<td>Survey</td>
<td>Web Site</td>
<td>Data Access</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Annual Retail Trade Survey</td>
<td><a href="https://www.census.gov/programs-surveys/arts.html">https://www.census.gov/programs-surveys/arts.html</a></td>
<td><a href="https://www.census.gov/programs-surveys/arts/data.html">https://www.census.gov/programs-surveys/arts/data.html</a></td>
</tr>
</tbody>
</table>
Produces monthly regional estimates of the average sales price for new manufactured homes and more detailed annual estimates including selected characteristics of new manufactured homes.

- Estimates of Average Sales Price of Manufactured Homes Sold or Intended for Sale for Residential Use are available at national, region, division, and state level annually and region level monthly.
  - Estimates of Manufactured Home Shipments are available at the national and state level monthly.
  - Estimates of shipped homes by status are available at the national level monthly.
  - Estimates of selected characteristics of sold/placed homes are available by region

- The Department of Housing and Urban Development (HUD) uses the data to monitor total new housing production and its affordability. The Bureau of Economic Analysis uses the data as an input to estimates of residential fixed investment. Trade associations use the data for housing market analysis. Manufacturers and their suppliers use the estimates to monitor trends in prices and characteristics (e.g., floor area, number of bedrooms). Trade publications cite estimates in articles.

- Sponsored by the HUD
• Provide price indexes for single-family houses sold and for single-family houses under construction. The houses sold index incorporates the value of the land and is available quarterly at the national level and annually by region.

• The indexes for houses under construction are available monthly at the national level.

• **USES**
  
  o The Bureau of Economic Analysis uses the estimates in development of the national income and product accounts. The Federal Reserve Board and Council of Economic Advisers use the estimates to determine the condition of the economy. The Department of Housing and Urban Development uses the estimates to develop and evaluate housing programs.

  o Manufacturers use estimates to plan production schedules and establish market shares. Insurance companies use estimates to adjust rates and establish replacement costs. Financial institutions use data to estimate mortgage demand.

• Partially sponsored by the HUD.

[https://www.census.gov/construction/cpi/](https://www.census.gov/construction/cpi/)
Construction Price Indexes
https://www.census.gov/construction/cpi/

- Census releases Laspeyres constant quality price indexes of single-family houses with New Residential Sales
  - Monthly – houses under construction
  - Quarterly – houses sold
  - Base year = 2005
- S&P/Case-Shiller index is a constant quality index of single-family repeat sales
  - National, 10 city composite, 20 city composite, metropolitan areas
  - Monthly
  - Base year = 2000
New York City Housing and Vacancy Survey (NYCHVS)
https://www.census.gov/programs-surveys/nychvs.html

• Provides detailed data from the survey cover many characteristics of the City’s housing market, including characteristics of the City’s population, households, housing stock, and neighborhoods

• New York City Housing and Vacancy Survey (NYCHVS) is sponsored by the New York City Department of Housing Preservation and Development and conducted every 3 years
  o It is used by the NYCHPD to provide information to comply with New York state and New York City’s rent regulation laws
  o The rental vacancy rate is the primary focus of the survey - crucial to the current rent regulation laws

• Additional data about housing and households in New York City include:
  o Rent regulatory and homeownership status, structural conditions, unit maintenance and neighborhood conditions
  o Crowding, rents, utility costs, type of heating fuel, rent/income ratios
  o Owner purchase price and estimated value, mortgage status and interest rate
  o Number of stories and units in building, cooperative/condominium status, wheelchair accessibility
Manufacturing

[https://www.census.gov/econ/manufacturing.html](https://www.census.gov/econ/manufacturing.html)

Includes manufacturing data on appliances, fixtures, furniture, building products and other construction related products

- **Manufacturers’ Shipments, Inventories, & Orders** provides monthly statistics on the value of shipments, inventories, orders and unfilled orders for durable goods and nondurable goods of domestic manufacturing

- **Annual Survey of Manufactures** produces national and state level statistics on employment, payroll, benefits, cost of materials consumed, operating expenses, value of shipments, value added by manufacturing, capital expenditures, fuels and electric energy used, and inventories of domestic manufacturing

- **Quarterly Financial Report** provides statistics on the sales, profits, assets, liabilities, stockholders’ equity, and related financial and operating ratios of corporations

- For more information, see
Wholesale Trade
https://www.census.gov/econ/wholesale.html

• **Monthly Wholesale Trade Survey** provides month-to-month trends for sales and inventories of U.S. merchant wholesalers

• **Annual Wholesale Trade Survey** provides detailed industry measures of sales, e-commerce, end-of-year inventories, inventories held outside the United States, purchases and total operating expenses

Includes wholesale trade data on furniture and home furnishings; lumber and other construction materials; electrical and electronic goods; and hardware, plumbing and heating equipment supplies
Retail Trade

[Link: https://www.census.gov/econ/retail.html]

- **Monthly Retail Trade Survey** provides monthly estimates on the dollar value of retail sales and end-of-month inventories.

- **Annual Retail Trade Survey** provides national estimates of total annual sales, e-commerce sales, end-of-year inventories, purchases, total operating expenses, inventories held outside the United States, gross margins, and end-of-year accounts receivable for retail businesses and annual sales, total operating expenses and e-commerce sales for accommodation and food service firms located in the United States.

Includes retail trade data on furniture and home furnishing stores, electronics and appliance stores, building materials and garden equipment, and supplies dealers (including paint and wallpaper stores, and hardware stores).
Services
https://www.census.gov/econ/services.html

• **Quarterly Services Survey** provides quarterly estimates on revenue and percentage change of taxable and tax-exempt service industries

• **Service Annual Survey** provides annual services sector statistics including operating revenue for both taxable and tax-exempt firms and organizations; sources of revenue and expenses by type for selected industries; operating expenses for tax-exempt firms; and selected industry-specific items, e-commerce data, and export and inventory data (for selected industries)

Provides information on personal and household goods, repair and maintenance, consumer goods rental, real estate, insurance agents and brokers, finance, and more
International Trade in Goods and Services Report (FT-900)

- The official source of U.S. export and import statistics
- One of the principal economic indicators used to measure the economy
- Provides statistics on U.S. exports, imports, and balance of trade in goods and services on a monthly basis

Provides international trade goods and services data related to construction and housing such as industrial supplies and materials (e.g., appliances, shingles, wallboard, lumber, plywood, iron and steel products).
Statistics of U.S. Businesses

https://www.census.gov/programs-surveys/susb.html

Statistics of U.S. Businesses are special tabulations sponsored by the Small Business Administration

• Data sources are County Business Patterns (CBP), the Census Bureau’s Business Register, and the Economic Census

• Provide annual statistics for businesses with paid employees within the U.S. at a national and detailed geographic and industry level

• Cover most NAICS industries excluding crop and animal production, rail transportation, National Postal Service, private households, and public sectors

• Data include the number of firms, number of establishments, employment, and annual payroll presented by geographic area, 6-digit NAICS industry, legal form of organization, and employment size class
  o In Economic Census years, estimated receipts in Economic Census are provided
Survey of Business Owners (SBO)
https://www.census.gov/programs-surveys/sbo.html

• Provides estimates on business owner characteristics and gender, ethnicity, race, and veteran status

• Estimates include the number of employer and nonemployer firms, sales and receipts, annual payroll, and employment and are presented by NAICS

• Data are provided by state, metropolitan and micropolitan statistical areas, counties, places, and employment and receipts size

• Conducted as a part of the Economic Census
Joint effort between Kauffman Foundation, Minority Business Development Agency (MBDA) and the U.S. Census Bureau for reference years 2014, 2015, and 2016

Provides business and business owner characteristics estimates on firms, receipts, payroll, and employment by gender, ethnicity, race, and veteran status annually by NAICS industry

Provides information that allows researchers and businesses to understand the
- Innovation and research and development activities conducted by entrepreneurs
- Record-keeping and management practices implemented by entrepreneurs
- Data users to understand time-series data in certain industries for entrepreneurs
- Business owners or perspective business owners to gain knowledge about the funding of businesses

Annual Survey of Entrepreneurs
https://www.census.gov/programs-surveys/ase.html
Longitudinal Employer-Household Dynamics (LEHD)  
https://lehd.ces.census.gov/

• The LEHD Program at the US Census Bureau has constructed unique linked employer-employee data for the United States.

• LEHD may be used to research and characterize workforce dynamics for the construction industry

• Data products include
  o Job-to-Job Flows (J2J)
  o The Quarterly Workforce Indicators (QWI) and
  o LEHD Origin-Destination Employment Statistics (LODES) data

• Connects administrative records with census and survey data to produce new public-use data products as well as microdata for research

• Accesses state data through the Local Employment Dynamics (LED) Partnership - a cooperative partnership with states and DC, PR, and USVI

• States provide:
  o Unemployment Insurance (jobs/workers)
  o Quarterly Census of Employment and Wages (firms)
• The Job-to-Job Flows (J2J) data traces worker reallocation through industries, geographic labor markets, and to/from periods of nonemployment.

• J2J can answer questions such as:
  
  o What industries are hiring newly separated construction workers?
  o What states are hiring out-of-state workers into jobs in construction?
  o How have these trends changed over time?
Key Economic Terms
Privacy and Confidentiality

- **U.S. Title 13** and **U.S. Title 26**
  - Provides the authority to collect information from the public in our surveys
  - Private information is never published, directly or through our tabulations
  - Personal information cannot be used against respondents by any government agency or court
  - Census Bureau employees are sworn to protect confidentiality
<table>
<thead>
<tr>
<th>Sector</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Agriculture, Forestry, Fishing and Hunting</td>
</tr>
<tr>
<td>21</td>
<td>Mining, Quarrying, and Oil and Gas Extraction</td>
</tr>
<tr>
<td>22</td>
<td>Utilities</td>
</tr>
<tr>
<td>23</td>
<td>Construction</td>
</tr>
<tr>
<td>31-33</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>42</td>
<td>Wholesale Trade</td>
</tr>
<tr>
<td>44-45</td>
<td>Retail Trade</td>
</tr>
<tr>
<td>48-49</td>
<td>Transportation and Warehousing</td>
</tr>
<tr>
<td>51</td>
<td>Information</td>
</tr>
<tr>
<td>52</td>
<td>Finance and Insurance</td>
</tr>
<tr>
<td>53</td>
<td>Real Estate and Rental and Leasing</td>
</tr>
<tr>
<td>54</td>
<td>Professional, Scientific, and Technical Services</td>
</tr>
<tr>
<td>55</td>
<td>Management of Companies and Enterprises</td>
</tr>
<tr>
<td>56</td>
<td>Administrative and Support and Waste Management and Remediation Services</td>
</tr>
<tr>
<td>61</td>
<td>Educational Services</td>
</tr>
<tr>
<td>62</td>
<td>Health Care and Social Assistance</td>
</tr>
<tr>
<td>71</td>
<td>Arts, Entertainment, and Recreation</td>
</tr>
<tr>
<td>72</td>
<td>Accommodation and Food Services</td>
</tr>
<tr>
<td>81</td>
<td>Other Services (except Public Administration)</td>
</tr>
<tr>
<td>92</td>
<td>Public Administration</td>
</tr>
<tr>
<td>Level</td>
<td>Code</td>
</tr>
<tr>
<td>------------------</td>
<td>------</td>
</tr>
<tr>
<td>Sector</td>
<td>23</td>
</tr>
<tr>
<td>Subsector</td>
<td>236</td>
</tr>
<tr>
<td>Industry Group</td>
<td>2361</td>
</tr>
<tr>
<td>Industry</td>
<td>23611</td>
</tr>
<tr>
<td>U.S. Industry</td>
<td>236115</td>
</tr>
</tbody>
</table>
Establishments vs. Companies

Establishment - A store, warehouse, factory, or other type of business at a single physical location

Company (or Firm) - One or more establishments under common ownership or control
Employers vs. Nonemployers

Employers

- Businesses with one or more paid employees

Nonemployers

- Businesses with no paid employees

- Make up about 3/4 of all US businesses but less than 5% of business receipts/revenue
Categories for Economic Data

- Industry (business activity)
- Product (what business makes or sells)
- Geography (where business located)
- Time Period (period covered)
- Other Organizational Levels (business size, tax status, legal form of organization, etc.)
- Data Items (employment; payroll, sales; value of shipments, receipts; and revenue; inventories; capital expenditures; product lines, etc.)
Data Tools
American FactFinder (AFF)
www.factfinder.census.gov

Contains data from the Economic Indicators only

https://www.census.gov/economic-indicators/

Time Series/Trend Charts

https://www.census.gov/econ/currentdata/
Contains data from the Economic Census and related programs, County Business Patterns, Nonemployer Statistics and the American Community Survey
Industry Statistics Portal and Industry Snapshots

http://www.census.gov/econ/isp

The Industry Statistics Portal provides access to all Economic data for a particular industry

https://www.census.gov/econ/snapshots

Industry Snapshots present key statistics from the Economic Census and per capita ratios using data from Population Estimates for a user-selected industry
USA Trade Online

https://usatrade.census.gov/

Provides access to current and cumulative U.S. export and import data
My Congressional District

Contains data from County Business Patterns and the American Community Survey
Census Business Builder
https://www.census.gov/data/data-tools/cbb.html

The Small Business Edition is built primarily for small business owners who need key data for their business plan or to better understand their potential market.

The Regional Analyst Edition is built for chambers of commerce and regional planning staff who need a broad portrait of the people and businesses in their service area.
Data in the Census Business Builder Include Data from:

- Economic Census
- County Business Patterns
- Nonemployers Statistics
- Survey of Business Owners
- American Community Survey
- International Trade
- Agriculture Data from the USDA
- Consumer Spending Data from ESRI

Features Include:

- Menus and Search tools
- Interactive maps
- Customizable dashboard that includes time series and geographic comparison charts
- Interactive and downloadable reports and charts
- Ability to “Add Reference Layers”,
- Upload Your Own Data
- Customizable Map Data Dashboard and Report (show or hide sections)
- Optimized for your smartphone or tablet

Census Business Builder
https://www.census.gov/data/data-tools/cbb.html