



# The American Affordability Tracker

*Technical Appendix*

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# Data Sources and Methodology

This data tool is regularly updated as new indicators and more recent data become available.

## Methodology for Nominal-Real Dollar Conversions

By default, all dollar values are shown in nominal dollars. Users have the option to see inflation-adjusted (real) values. We use the US Bureau of Labor Statistics' Consumer Price Index for All Urban Consumers (CPI-U) to adjust for inflation and show prices in 2025 real dollars.

## Geographic Crosswalks

We use the Missouri Census Data Center's 2022 Geographic Correspondence Engine crosswalks to convert data from Public Use Microdata Areas (PUMAs), zip codes, and counties (depending on data source) to population-weighted averages by congressional districts. We use the district boundaries as of the start of the 119th Congress for all years of data, though people in certain districts during the 119th Congress may have lived in other districts in previous years.

We also use population-based weights to aggregate up to the state and national levels where needed. The Geographic Correspondence Engine does not provide a state-national or county-national crosswalk, so we allocated shares of the national population to counties and states using the US Census Bureau's Population Estimates by year.

## Notes on Specific Data Sources

### Residential electricity bills

- **Definition:** Average monthly residential electricity bills.
- **Availability:** Monthly, by state and nationally.
- **Methodology:** To calculate average monthly residential electricity bills, we divided the total operating revenues from sales of electricity to residential end-use customers by the total number of residential customers for each state and nationally. Monthly data are drawn from

Form EIA-861M, a monthly sample survey of approximately 500 of the largest electric utilities and energy service providers, which is benchmarked annually to Form EIA-861, a mandatory census of approximately 3,300 electric power industry participants. We use preliminary survey data where finalized data are not yet available; preliminary estimates are subject to revision. The average monthly bill represents a weighted average across all residential customers within each geography and does not reflect the bill of any individual customer or the per-kWh rate charged by any specific utility. Actual electricity prices vary across utilities and customers based on varying consumption levels, consumer patterns, rate structures, geographic considerations, and energy sources. Customers reflect accounts tied to meters, not dwelling units, so do not account for edge cases like multiple households paying for electricity within a master-metered multifamily building. As a result, customers do not reflect the true number of households served.

- **Source:** US Energy Information Administration Form EIA-861M, Monthly Electric Power Industry Report.

## Gasoline prices

- **Definition:** Average price per gallon of regular gasoline (all formulations).
- **Availability:** Daily prices scraped intermittently.
- **Methodology:** We assume zip codes in the tool correlate to zip code tabulation areas (ZCTAs). We calculate population-weighted averages of zip code-level data to obtain congressional district-level data. If data are missing from certain zip codes within a congressional district and the population of those zip codes with missing data make up 30 percent or more of a congressional district's population, we do not display data for that congressional district.
- **Source:** AAA.
  - » **Congressional district level:** Gas prices are collected at the zip code level from AAA's Fuel Price Finder.<sup>1</sup>
  - » **State and national levels:** Gas prices are collected at the state level from AAA<sup>2</sup> and aggregated up to the national level, weighted by population.
  - » **US Energy Information Administration.** Data before August 2024 come from the Energy Information Administration and show the average price per gallon of regular gas (all formulations).

## Grocery prices

- **Definition:** Average monthly cost of groceries for a family of four.
- **Availability:** Monthly, by congressional district, by state, and nationally.
- **Methodology:** We base our calculations on the US Department of Agriculture's June 2021 Thrifty Food Plan<sup>3</sup> market basket for a family of four (\$835.57 for a man and a woman, both 20 to 50 years old with two children, one child between ages 6 and 8 and one between ages 9 and 11). We inflate or deflate the June 2021 Thrifty Food Plan market basket cost for a family of four using the CPI-U for food costs at home for each month between January 2017 and the most recent month for which the CPI-U is available. After inflating or deflating the national market basket cost, we apply state- and congressional district-level price indices sourced from Feeding America.

Feeding America provided annual adjustments for each county from 2017 to 2024 based on local grocery prices and applicable state and county sales taxes on groceries. The national Thrifty Food Plan cost is adjusted using county-level food price indices. Our source for a county-level food price index is Feeding America's annual Map the Meal Gap study, which is based on food price data contributed by NielsenIQ. Some counties' price indices are imputed based on grocery prices in nearby counties. These data are weighted to the Thrifty Food Plan market basket based on pounds purchased by men ages 19 to 50. Other Thrifty Food Plans for different ages and sexes would produce different total market basket costs; relative pricing between counties (our goal for this analysis) is not affected. Note that from 2017 through 2021, price indices were calculated each year based on different samples of grocery stores, whereas from 2022 through 2024, price indices were based on a consistent sample of grocery stores. National trends are unaffected by the changing samples, as the cost is based on the Thrifty Food Plan. The shifting samples likely only modestly affect state-level estimates, so we show trends from 2017 to 2024 at the state level as well. The sample changes may have noticeable effects on county- and congressional district-level estimates, so we only show the trend from 2022 to 2024, which uses consistent samples of grocery stores at those local levels.

We convert county-level price indices to congressional districts using population-weighted averages. For 2022–24, we calculate monthly moving averages of annual congressional district price indices. For 2017–21, we use the annual values for price indices for each month.

Similarly, we calculate state-level adjustment factors from the county level using population-weighted averages.

- **Sources:** Feeding America’s Map the Meal Gap study, using food price data contributed by NielsenIQ to estimate county-level price indices, the Urban Institute’s “Does SNAP Cover the Cost of a Meal in Your County?” (methodology), and the Bureau of Labor Statistics’ CPI-U for food at home.

## Child care prices

- **Definition:** Sum of the average annual price of full-time, center-based care for 4-year-olds and family-based care for infants.
- **Availability:** Annually, by state and nationally.
- **Methodology:** We compiled state-level data from Child Care Aware of America and calculated a population-weighted average of state data to produce national values.
- **Source:** Child Care Aware of America’s 2017–24 Annual Price of Care reports.<sup>4</sup>

## Health insurance costs

- **Definition:** Unsubsidized cost of the lowest-price “Silver” plan on the Affordable Care Act Marketplace for a 40-year-old who is ineligible for the premium tax credit.
- **Availability:** Annually, by congressional district, by state, and nationally.
- **Methodology:** Because national- and state-level data were unavailable for 2017, we aggregated them from the 2017 county-level data. We calculate population-weighted averages of county-level data to obtain congressional district-level data.
- **Sources:** KFF annual analyses of local costs of Affordable Care Act Marketplace plans.
  - » County level for 2017–24.<sup>5</sup>
  - » State and national level for 2017–26.<sup>6</sup>

## Home sale prices

- **Definition:** Average sale price of houses adjusted using local all-transactions housing price index.
- **Availability:** Quarterly, by congressional district, by state, and nationally.
- **Methodology:** Our base data are January 2017 home sale prices from ICE Mortgage Technology. The base data prices are geometric averages (the  $n$ th root of the product of all house sale prices), which are less sensitive to outliers with high values than typical averages. We calculate home prices for each subsequent quarter by growing the January 2017 prices using the quarterly all-transactions House Price Index from the Federal Housing Finance Agency (FHFA). Because the base data are provided by zip code and the FHFA House Price Index is provided by census tract, we calculated population-weighted averages of both at the congressional district level. We calculate house prices by state using state-level base data and the FHFA's state price index, and national house prices using state-level base data and the FHFA's national House Price Index. If data are missing from certain zip codes within a congressional district and the population of those zip codes with missing data make up 30 percent or more of a congressional district's population, we do not display data for that congressional district.
- **Sources:** FHFA House Price Index; base prices from ICE Mortgage Technology.

## Rents

- **Definition:** A smoothed measure of the typical observed market rate rent in a given geography (in this case, zip codes and counties).
- **Availability:** Monthly, by congressional district, by state, and nationally.
- **Methodology:** Zillow Observed Rent Index is a repeat-rent index weighted to the rental housing stock to ensure representativeness across the entire market, not just homes currently listed for rent. The index is dollar denominated by computing the mean of listed rents that fall into the 35th to 65th percentile range for all homes and apartments in a given region, which is weighted to reflect the rental housing stock. We calculate population-weighted averages of zip code-level data to obtain congressional district-level data, and population-weighted averages of county data to obtain state and national data. If data are missing from certain zip codes within a congressional district and the population of those zip codes with missing data

make up 30 percent or more of a congressional district's population, we do not display data for that congressional district.

- **Source:** Zillow Observed Rent Index.<sup>7</sup>

### Average weekly earnings

- **Definition:** Average weekly earnings of all employees of private firms (nonfarm).
- **Availability:** Monthly, by state and nationally.
- **Methodology:** We obtained state- and national-level data from Federal Reserve Economic Data.
- **Source:** US Bureau of Labor Statistics, Current Employment Statistics (Establishment Survey), accessed via Federal Reserve Economic Data.

### True Cost of Economic Security

- **Definition:** The share of people in families with resources below the True Cost of Economic Security (TCES) threshold in 2023. The threshold is defined as the level of resources required “to pay for all the goods and services necessary to fully participate in today’s economy and society without undue restrictions or hardship, as well as save money for emergencies and the future” (Acs et al. 2026, 2).
- **Availability:** Annually, by congressional district, by state, and nationally.
- **Methodology:** We calculate population-weighted averages of PUMA-level data to obtain congressional district-level data. If data are missing from certain PUMAs within a congressional district and the population of those PUMAs with missing data make up 30 percent or more of a congressional district’s population, we do not display data for that congressional district. Because of a small number of changes to the components of the True Cost of Economic Security rate between the original report and the 2026 update (using 2023 data), we advise caution when comparing years of data.
- **Source:** The Urban Institute’s Measuring the True Cost of Economic Security dataset. Original geographies are available for download from the Urban Institute’s Data Catalog.<sup>8</sup>

# Urban Institute Credit Bureau Panel

We report five metrics from the Urban Institute Credit Bureau Panel. This dataset is reported by ZCTA. We calculate population-weighted averages of these data to produce values at the county, congressional district, state, and national levels.

## Credit scores

- **Definition:** Average VantageScore (300 to 850) of people with a credit bureau record.
- **Availability:** Annually, by congressional district, by state, and nationally (2017–24).
- **Methodology:** Credit bureau metrics by congressional district are based on ZCTAs of residence that overlap wholly or partially with districts, weighted according to the percentage of the ZCTA population in those districts. For these metrics, we restrict the sample to consumers with a valid zip code. Some values are missing because credit bureau metrics are not reported when they are based on fewer than 50 people nationally or in a congressional district or state.
- **Source:** Urban Institute Credit Bureau Panel.

## Credit card debt delinquency rates

- **Definition:** Share of people with credit or charge card debt who are 60 or more days delinquent.
- **Availability:** Annually, by congressional district, by state, and nationally (2018–24).
- **Methodology:** Credit bureau metrics by congressional district are based on ZCTAs of residence that overlap wholly or partially with districts, weighted according to the percentage of the ZCTA population in those districts. For these metrics, we restrict the sample to consumers with a valid zip code. Some values are missing because credit bureau metrics are not reported when they are based on fewer than 50 people nationally or in a congressional district or state.
- **Source:** Urban Institute Credit Bureau Panel.

## Student loan delinquency rates

- **Definition:** Share of student loan holders with loans 60 days or more past due or in default.
- **Availability:** Annually, by congressional district, by state, and nationally (2017–24).
- **Methodology:** Credit bureau metrics by congressional district are based on ZCTAs of residence that overlap wholly or partially with districts, weighted according to the percentage of the ZCTA population in those districts. For these metrics, we restrict the sample to consumers with a valid zip code. Some values are missing because credit bureau metrics are not reported when they are based on fewer than 50 people nationally or in a congressional district or state.
- **Source:** Urban Institute Credit Bureau Panel.

## Mortgage delinquency rates

- **Definition:** Share of mortgage holders with mortgages 30 days or more past due.
- **Availability:** Annually, by congressional district, by state, and nationally (2018–24).
- **Methodology:** Credit bureau metrics by congressional district are based on ZCTAs of residence that overlap wholly or partially with districts, weighted according to the percentage of the ZCTA population in those districts. For these metrics, we restrict the sample to consumers with a valid zip code. Some values are missing because credit bureau metrics are not reported when they are based on fewer than 50 people nationally or in a congressional district or state.
- **Source:** Urban Institute Credit Bureau Panel.

## Auto and retail loan delinquency rates

- **Definition:** Share of people with an auto loan or lease or a retail installment loan who are 60 or more days delinquent. Retail installment loans are retail trades with installment terms; for example, a loan from a retail store for a furniture purchase.
- **Availability:** Annually, by congressional district, by state, and nationally (2017–24).
- **Methodology:** Credit bureau metrics by congressional district are based ZCTAs of residence that overlap wholly or partially with districts, weighted according to the percentage of the

ZCTA population in those districts. For these metrics, we restrict the sample to consumers with a valid zip code. Some values are missing because credit bureau metrics are not reported when they are based on fewer than 50 people nationally or in a congressional district or state.

- **Source:** Urban Institute Credit Bureau Panel.

# Notes

- <sup>1</sup> “Find Your Local AAA Club,” AAA, accessed September 26, 2025, <https://aaa.opisnet.com/index.aspx>.
- <sup>2</sup> “State Gas Price Averages,” AAA, accessed September 26, 2025 <https://gasprices.aaa.com/state-gas-price-averages/>.
- <sup>3</sup> “Thrifty Food Plan, 2021,” US Department of Agriculture, last updated July 31, 2025, <https://www.fns.usda.gov/cnpp/thrifty-food-plan-2021>.
- <sup>4</sup> “Research and Data,” Child Care Aware of America, accessed October 15, 2025, <https://www.childcareaware.org/our-issues/research-and-data/>.
- <sup>5</sup> For visualizations of county-level data for specific years, please refer to the following maps, generated in Tableau: [2017](#), [2018](#), [2019](#), [2020](#), [2021](#), [2022](#), and [2023–24](#).
- <sup>6</sup> For visualizations of state- and national-level data, please refer to the following map: [2017](#) and [2018–26](#).
- <sup>7</sup> For further details, see Joshua Clark, “Methodology: Zillow Observed Rent Index (ZORI),” Zillow, September 19, 2022, <https://www.zillow.com/research/methodology-zori-repeat-rent-27092/>.
- <sup>8</sup> Acs, Gregory, Ilham Dehry, Lauren Simpson, and Margaret Todd, “Measuring the True Cost of Economic Security (2023),” Urban Data Catalog, modified March 19, 2026, <https://datacatalog.urban.org/dataset/measuring-true-cost-economic-security-2023>.

# Reference

Acs, Gregory, Ilham Dehry, Lauren Simpson, and Margaret Todd. 2026. *Update 2023: Measuring the True Cost of Economic Security: What Does It Take to Thrive, Not Just Survive, in the US Today?* Urban Institute.

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## Data Citation

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