



Financial Health of Residents: A City-Level Dashboard

Technical Appendix

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Creating City Peer Groups

We use cluster analysis to group the 60 cities into the 9 city peer groups (or clusters). Using a hierarchical clustering model using Ward's method and a Euclidean distance measure, we group cities that are similar. The analysis includes measures of residents' financial health and cities' economic health. The financial health metrics are designed to capture residents' ability to manage daily finances, be resilient to economic shocks, and pursue opportunity.¹

The metrics² included in the cluster analysis are median credit score, median credit score for zip codes with predominantly nonwhite populations, share with any delinquent debt, amount of delinquent debt (75th percentile), share with a mortgage and a foreclosure in the last two years, share of low- and middle-income households (income below \$50,000) that are housing-cost burdened (pay more than 30 percent of income on housing), share with no bank account, share with health insurance, share of low- and middle-income tax filers (incomes below \$50,000) receiving the earned income tax credit (EITC), unemployment rate, labor force participation rate, Gini index (measure of income inequality), share of individuals with family incomes below 200 percent of the federal poverty level, and population change (2000–15).

These metrics are constructed from multiple data sources:

- individual deidentified data from a major credit bureau
- the US Census Bureau's decennial census and American Community Survey (ACS)
- the Federal Deposit Insurance Corporation's (FDIC) National Survey of Unbanked and Underbanked Households
- Brookings Institution tabulations of IRS data

Credit bureau data are available as recently as 2016. We use 2015 ACS data where possible, but for smaller cities and metrics that incorporate zip-code level information, we use the 2011–15 five-year ACS. We use FDIC data from both 2013 and 2015. Each metric was standardized to have a mean of zero and a standard deviation of one to help ensure the analysis was not sensitive to the scale or units of measure, and all metrics were equally weighted in the clustering analysis.

Metric Definitions

Credit Score

- *Median credit score:* Median VantageScore credit score (2016 credit bureau data). The VantageScore ranges from 300 to 850. Subprime scores range from 300 to 600, near-prime from 601 to 660, and prime or more from 661 to 850.
- *Credit score, white areas:* Median VantageScore credit score in predominantly white zip codes in the city (at least 60 percent of people in zip codes are white; 2015 credit bureau and ACS data).
- *Credit score, nonwhite areas:* Median VantageScore credit score in predominantly nonwhite zip codes in the city (at least 60 percent of people in zip codes are not white; 2015 credit bureau and ACS data).

Delinquent Debt (past due and in collections)

- *Delinquent debt:* Share of people with a credit bureau record who have debt that is 60 or more days delinquent, including in collections and other derogatory debt (2016 credit bureau data).
- *Median delinquent debt:* Median amount of debt that is 60 or more days delinquent among those with delinquent debt, including in collections and other derogatory debt (2016 credit bureau data).

Housing

- *Home foreclosure:* Share of people with a mortgage (reported on their credit file) who have had a foreclosure in the last two years (2016 credit bureau data).
- *Housing-cost burdened, low-income:* Share of households with annual incomes below \$50,000 that are housing-cost burdened (i.e., pay more than 30 percent of income on housing; 2015 ACS).

Financial Service Use

- *Unbanked, metro area*: Share of households in the metropolitan area that do not have a bank account (2013 and 2015 FDIC survey of survey of unbanked and underbanked households).³

Health Insurance

- *Health insurance coverage*: Share of people with health insurance (2015 ACS).

Earned Income Tax Credit

- *Received EITC, low-income*: Share of tax filers with incomes (adjusted gross incomes) below \$50,000 who receive the EITC (2013; Brookings Institution tabulations of IRS administrative data).⁴

Economic and Related Factors

- *Unemployment rate*: Unemployment rate for the civilian population age 16 or older (2015 ACS).
- *Labor force participation rate*: Labor force participation rate for individuals age 16 or older (2015 ACS).
- *Gini index of income inequality*: Gini index of income inequality for households (2015 ACS). The Gini index is measured on a scale of 0 to 1 with higher numbers indicating more inequality. A Gini of 0 reflects perfect equality (i.e., all households have the same income), and a Gini of 1 reflects perfect inequality (i.e., one household has all the income).
- *Below 200% of federal poverty level*: Share of people with family income below 200 percent of the federal poverty level (2015 ACS).
- *Population change, 2000–15*: Change in total population between 2000 and 2015 (2000 Decennial Census and 2015 ACS).⁵

Notes

1. The Center for Financial Services Innovation defines financial health as smooth and effective management of one's day-to-day financial life, resilience in the face of inevitable ups and downs, and the capacity to seize opportunities for financial security and mobility (Gutman et al. 2015). The Consumer Financial Protection Bureau defines financial well-being as having financial security and financial freedom of choice in the present and in the future (Consumer Financial Protection Bureau 2015).
2. In instances when a metric is not available for a city, the cluster analysis uses the 60-city average.
3. In cases where 2015 data are not available, we use 2013 data if available. We use 2013 data for Buffalo, NY; Rochester, NY; San Jose, CA; and Des Moines, IA.
4. This measure is in part reflective of family structure. For example, families without custodial children are unlikely to qualify and thus receive the EITC.
5. We do not present this metric for cities whose borders changed substantially between 2000 to 2015: Louisville, KY; Honolulu, HI; and Columbus, GA.

References

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