

District Data Brief

How Successful Is Your Region at Retaining Domestic Migrants?

Stephan D. Whitaker, Brett D. Huettnner


November 21, 2024

Introduction

As the US population ages and the natural increase (defined as births minus deaths) declines in more regions, attracting residents from other parts of the country, or “domestic migrants,” is becoming increasingly important for maintaining a given region’s population and workforce. Local leaders often believe that once someone has lived in their area, this person will want to stay. How often is this true? In this *District Data Brief*, we use the long histories of individuals’ locations drawn from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel to measure the retention of migrants who have moved to regions across the country. This analysis builds on our recent *District Data Brief*, “[How Successful Is Your Region at Retaining Its Native Residents?](#)” We find that metro areas with faster growth rates retain a higher percentage of their in-migrants and that population growth is highest if a region combines high retention with robust in-migration. In the Fourth Federal Reserve District,¹ only Columbus and Lexington successfully translate high retention of migrants into population growth.

¹ The Fourth District covers Ohio, western Pennsylvania, eastern Kentucky, and the northern panhandle of West Virginia.

The views authors express in *District Data Briefs* are theirs and not necessarily those of the Federal Reserve Bank of Cleveland or the Board of Governors of the Federal Reserve System. The series editor is Harrison Markel.

This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](#).  This paper and its data are subject to revision; please visit [ClevelandFed.org](#) for updates.

Data and Definitions

The estimates of individuals' long-run patterns of migration are created with a random, anonymous sample drawn from credit histories maintained by Equifax, known as the Federal Reserve Bank of New York/Equifax Consumer Credit Panel (CCP). Almost nine of 10 adults in the United States have accounts with creditors (for example, mortgages, student loans, auto loans, and credit cards), and these lenders report billing addresses to the credit bureaus each month. The CCP data include the county that contains the borrower's billing address, and this enables us to observe each quarter whether an individual is living in their home region or another region. When borrowers first apply for credit, we designate them as a native of the region in which they are living.² Because the CCP begins in 1999, we must limit the analysis to people born in 1981 or later, as credit histories do not start until age 18 (typically between 18 and 23), and we need to observe people when their credit history begins to accurately place them in their home region.

Some of the results presented below are disaggregated by credit score. The score available in the CCP is the Equifax Risk Score. Like other credit scores, it uses information in borrowers' credit records to predict the probability of their becoming delinquent on debts.

In this *District Data Brief*, the term "metro" refers to a Core-Based Statistical Area (CBSA) as defined by the Office of Management and Budget (OMB). The US Department of Agriculture groups rural counties into regions called "commuting zones" (CZs) based on how frequently people drive between the counties for work. We use the CZ definitions for all nonmetro counties so that we can include all counties in our calculations. We define "large metros" as those with populations of greater than 1 million for graphs of the top-10 and bottom-10 metros. To better illustrate certain relationships, the samples in scatterplots include all regions with populations of greater than 500,000.

Retention Estimates

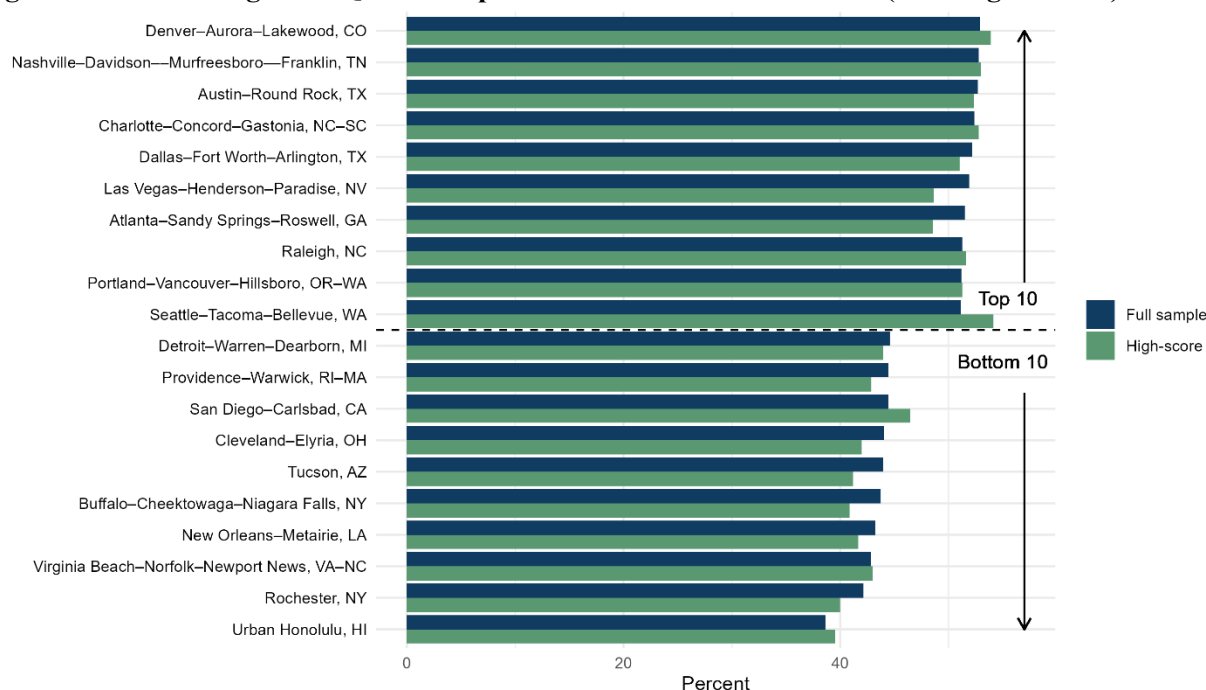
To measure domestic migrant retention, we begin by identifying every person represented in the CCP data who moves away from their home region. For each destination region to which they move, we look at all the quarters we can observe for the arriving migrants, from the time of their first arrival through the second quarter of 2024, the most recent quarter for which data are available. We then calculate the share of those observed quarters during which the migrants were reported to still be living in that destination. We refer to this ratio as the migrant retention rate; it tells us how successful the region is at retaining people who have arrived from elsewhere.

² Some students might use a college dormitory address in their first application for credit. If they are attending school out of town, they may be labeled natives of the wrong region. This could bias the estimates of retention, especially for college towns, because these students are likely to return home or move on after graduation. To account for this, we estimate the relationship between regions' student populations and their retention. We then adjust each region's retention estimate to remove the effect of students.

The top 10 metros in the nation as ranked by migrant retention rate are almost all among the fastest growing in the country. Among them, Denver, Nashville, and Austin have seen particularly strong growth over the last two decades. By contrast, the bottom 10 metros as ranked by migrant retention include mostly slow-growing or shrinking places including Buffalo, Rochester, and Providence. One Fourth District metro, Cleveland, is among the bottom 10.

In Figure 1, the green bars represent the migrant retention measure calculated for individuals with Equifax Risk Scores in the top third of the distribution. Higher scores indicate these borrowers have consistently paid their debts on time, suggesting they probably have in-demand skills and strong earning power. In some of the more expensive metros, including Denver, Seattle, San Diego, and Honolulu, in-migrants with higher Equifax Risk Scores are more likely to stay than in-migrants with lower scores.

Figure 1. Share of Migrants’ Quarters Spent in Their Destination Metro (US Large Metros)

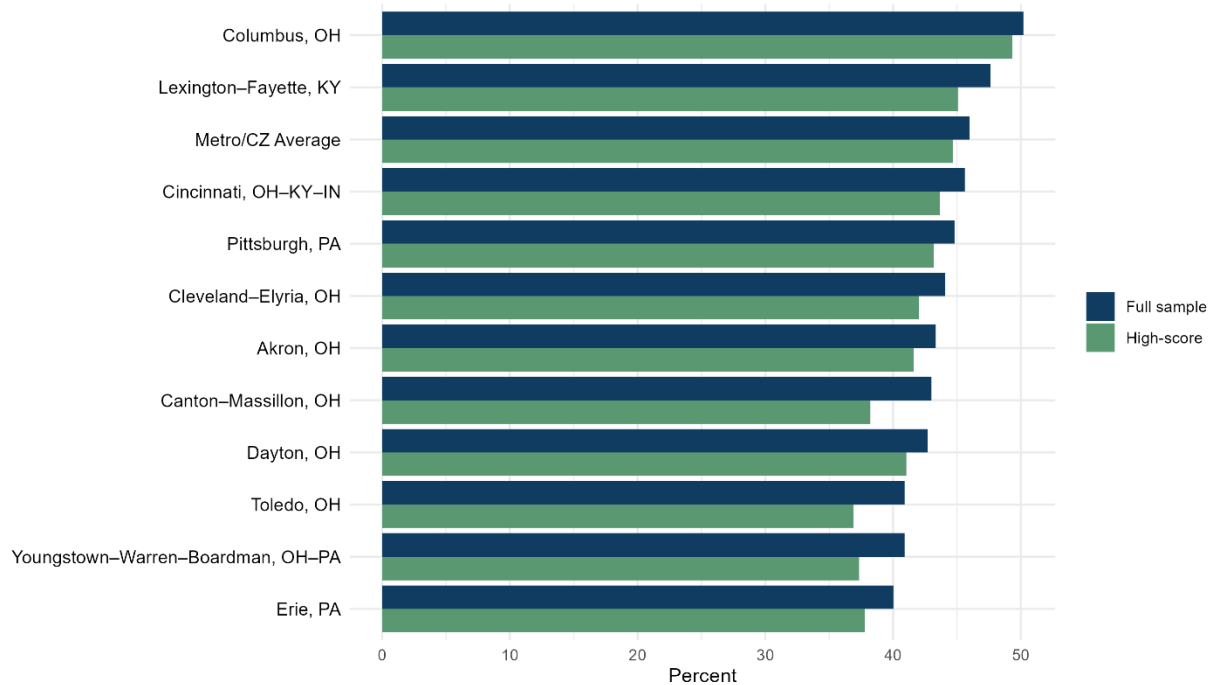


Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel and authors’ calculations. “High-score” estimates limit the sample to individuals with Equifax Risk Scores in the top third of the distribution.

In Figure 2, Fourth District metros’ migrant retention rates are graphed alongside the average for all metros and CZs. Columbus and Lexington are the only two District metros that retain their migrants at an above-average rate. Our *District Data Brief* last month reported that native retention is higher in larger metro areas, and we now find that this holds true for domestic migrant retention as well. Metros with populations of above 1 million have an average migrant retention rate of 48.5 percent, while those with

populations of below 1 million have an average rate of 42.3 percent.³ This suggests that scale provides an advantage in retaining residents.

Figure 2. Share of Migrants’ Quarters Spent in Their Destination Region (Fourth District Metros)

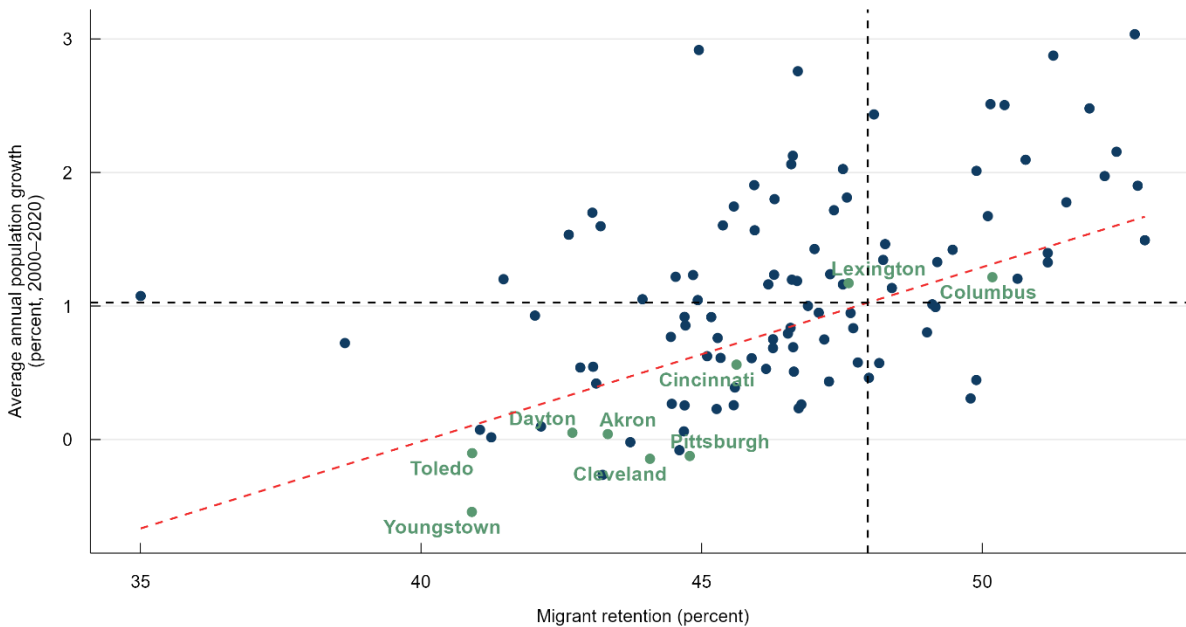


Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel and authors’ calculations. “High-score” estimates limit the sample to individuals with Equifax Risk Scores in the top third of the distribution.

Figure 3 plots regions’ migrant retention against their average annual population change from 2000 to 2020. The vertical and horizontal lines represent the averages of their respective measures, while the diagonal line is a population-weighted line of best fit. Overall, metros with higher average migrant retention also have faster-growing populations. This relationship is visible among the Fourth District metros (labeled in green) and among all regions with over 500,000 residents (indicated with blue markers).

³ These are population-weighted averages of the retention rates of the regions, CBSAs, or CZs. Without population weighting, the averages are 47.9 percent for regions with populations of above 1 million and 40.1 percent for regions with populations of under 1 million. The overall population-weighted national average is 45.8 percent, and the unweighted average is 40.3 percent.

Figure 3. Migrant Retention vs. Population Change (Populations $\geq 500,000$)



Sources: Census Bureau, Federal Reserve Bank of New York/Equifax Consumer Credit Panel, and authors' calculations. Fourth District metro areas are shown with green markers and abbreviated labels.

At any given retention rate, the more migrants that arrive, the more they can contribute to the population. So, which of these measures matters most: native retention, migrant inflow, or migrant retention? To figure this out, we can sort all regions into categories based on whether they score above- or below-average on each measure. These categories and their average population growth rates are shown in Table 1.

For Akron, Canton, Dayton, Erie, Toledo, and Youngstown, raising any of these measures above the national average would probably help increase their population growth. For Cincinnati, Cleveland, and Pittsburgh, this simple breakdown suggests focusing on increasing migrant retention because the regions with high native retention, low inflows, and high migrant retention fared better (8.2 percent population growth) than regions with high native retention, high inflows, and low migrant retention (5.1 percent).

Table 1. Population Growth by Level of Retention and Migrant Inflows

Native retention	Migrant inflow	Migrant retention	Average population growth (2000–2020)	Most populous metro in category	Fourth District metros in category
Low	High	High	17.2	Orlando	Lexington
High	High	High	15.1	Washington	Columbus
High	Low	High	8.2	New York	
Low	High	Low	5.7	Virginia Beach	
High	High	Low	5.1	San Diego	
Low	Low	High	3.9	Allentown	
High	Low	Low	2.5	Detroit	Cincinnati, Cleveland, Pittsburgh
Low	Low	Low	–0.3	Bridgeport, CT	Akron, Canton, Dayton, Erie, Toledo, Youngstown

Note: “High” indicates regions with above-average values of the measure, and “Low” indicates below-average values of the measure.

Sources: US Census Bureau, Federal Reserve Bank of New York/Equifax Consumer Credit Panel, and author’s calculations.

Conclusion

Our analysis shows that regions can expect to keep migrants for about 40 to 50 percent of the migrants’ time after they arrive. Domestic migration, although undergoing a steady decline, has become the main source of population expansion for growing regions. We have shown here that, in most cases, metros that are better at retaining domestic migrants have faster-growing populations.

Retaining domestic migrants translated into strong population growth for Lexington and Columbus because they also have substantial inflows of domestic migrants. With these domestic migrant retention measures in hand, the Fourth District regions with weaker population growth can explore whether there are effective ways to emulate the regions with higher migrant retention rates and whether these would be worth the necessary investments.

Table A1. Share of Migrants’ Quarters Spent in Their Destination Metro (Population >500,000)

Metro area	Migrant retention rate		Metro area	Migrant retention rate	
	Full sample	High-score		Full sample	High-score
Denver–Aurora–Lakewood, CO	52.90	53.92	Tulsa, OK	46.58	44.27
Nashville–Davidson–Murfreesboro–Franklin, TN	52.77	52.99	Lancaster, PA	46.54	44.88
Austin–Round Rock, TX	52.72	52.34	Ogden–Clearfield, UT	46.30	46.81
Charlotte–Concord–Gastonia, NC–SC	52.39	52.79	Columbia, SC	46.29	42.81
Dallas–Fort Worth–Arlington, TX	52.18	51.04	Allentown–Bethlehem–Easton, PA–NJ	46.27	42.69
Las Vegas–Henderson–Paradise, NV	51.91	48.63	San Francisco–Oakland–Hayward, CA	46.27	49.67
Atlanta–Sandy Springs–Roswell, GA	51.50	48.54	Fresno, CA	46.19	43.52
Raleigh, NC	51.26	51.64	Baltimore–Columbia–Towson, MD	46.15	45.95
Portland–Vancouver–Hillsboro, OR–WA	51.17	51.27	Bakersfield, CA	45.94	43.23
Seattle–Tacoma–Bellevue, WA	51.17	54.13	Charleston–North Charleston, SC	45.94	44.50
Houston–The Woodlands–Sugar Land, TX	50.77	49.34	Wichita, KS	45.89	43.06
Indianapolis–Carmel–Anderson, IN	50.63	49.95	Cincinnati, OH–KY–IN	45.62	43.66
Fayetteville–Springdale–Rogers, AR–MO	50.40	49.54	Bridgeport–Stamford–Norwalk, CT	45.59	45.11
Columbus, OH	50.18	49.32	North Port–Sarasota–Bradenton, FL	45.57	43.10
Boise City, ID	50.14	50.00	Hartford–West Hartford–East Hartford, CT	45.57	44.36
Des Moines–West Des Moines, IA	50.10	51.22	Stockton–Lodi, CA	45.38	43.52
Phoenix–Mesa–Scottsdale, AZ	49.90	48.55	Portland–South Portland, ME	45.34	45.42
New York–Newark–Jersey City, NY–NJ–PA	49.89	50.44	Harrisburg–Carlisle, PA	45.28	43.08
Los Angeles–Long Beach–Anaheim, CA	49.79	50.18	New Haven–Milford, CT	45.27	41.38
Tampa–St. Petersburg–Clearwater, FL	49.47	48.13	Baton Rouge, LA	45.17	41.56
Oklahoma City, OK	49.20	47.21	Worcester, MA–CT	45.10	43.57
Minneapolis–St. Paul–Bloomington, MN–WI	49.17	49.76	Provo–Orem, UT	44.95	44.00
Little Rock–North Little Rock–Conway, AR	49.11	47.28	Modesto, CA	44.93	43.38
Louisville/Jefferson County, KY–IN	49.01	46.79	Spokane–Spokane Valley, WA	44.85	42.45
Albuquerque, NM	48.39	46.78	Pittsburgh, PA	44.79	43.17
Salt Lake City, UT	48.27	48.21	Winston–Salem, NC	44.71	42.59
Washington–Arlington–Alexandria, DC–VA–MD–WV	48.23	49.87	St. Louis, MO–IL	44.70	42.73
Boston–Cambridge–Newton, MA–NH	48.16	48.46	Greensboro–High Point, NC	44.69	40.62
Orlando–Kissimmee–Sanford, FL	48.07	47.03	Scranton–Wilkes–Barre–Hazleton, PA	44.68	39.21
Philadelphia–Camden–Wilmington, PA–NJ–DE–MD	47.98	46.55	Detroit–Warren–Dearborn, MI	44.60	43.98
Birmingham–Hoover, AL	47.78	46.45	Palm Bay–Melbourne–Titusville, FL	44.54	44.41
Chattanooga, TN–GA	47.70	46.50	Providence–Warwick, RI–MA	44.47	42.85
Kansas City, MO–KS	47.65	47.73	San Diego–Carlsbad, CA	44.45	46.46
Lexington–Fayette, KY	47.62	45.08	Cleveland–Elyria, OH	44.08	42.00
Jacksonville, FL	47.59	47.35	Tucson, AZ	43.95	41.17
San Antonio–New Braunfels, TX	47.52	45.60	Buffalo–Cheektowaga–Niagara Falls, NY	43.73	40.86
Omaha–Council Bluffs, NE–IA	47.52	47.00	Akron, OH	43.33	41.60
Riverside–San Bernardino–Ontario, CA	47.36	46.42	New Orleans–Metairie, LA	43.23	41.66
Greenville–Anderson–Mauldin, SC	47.29	43.85	Durham–Chapel Hill, NC	43.20	41.44
Jackson, MS	47.27	43.80	Albany–Schenectady–Troy, NY	43.12	40.61
Grand Rapids–Wyoming, MI	47.18	47.23	Oxnard–Thousand Oaks–Ventura, CA	43.07	43.64
Knoxville, TN	47.09	44.06	Colorado Springs, CO	43.05	41.34
Sacramento–Roseville–Arden–Arcade, CA	47.01	45.54	Virginia Beach–Norfolk–Newport News, VA–NC	42.84	43.00
Miami–Fort Lauderdale–West Palm Beach, FL	46.89	44.72	Dayton, OH	42.70	41.03
Chicago–Naperville–Elgin, IL–IN–WI	46.78	46.96	Deltona–Daytona Beach–Ormond Beach, FL	42.63	38.21
Milwaukee–Waukesha–West Allis, WI	46.73	45.75	Rochester, NY	42.14	39.97
Cape Coral–Fort Myers, FL	46.71	43.85	Augusta–Richmond County, GA–SC	42.03	39.86
Richmond, VA	46.70	46.23	El Paso, TX	41.47	38.51
Memphis, TN–MS–AR	46.64	42.72	Springfield, MA	41.25	37.01
San Jose–Sunnyvale–Santa Clara, CA	46.63	48.13	Syracuse, NY	41.05	38.26
McAllen–Edinburg–Mission, TX	46.62	40.90	Toledo, OH	40.91	36.90
Madison, WI	46.61	46.53	Youngstown–Warren–Boardman, OH–PA	40.91	37.34
Lakeland–Winter Haven, FL	46.60	42.53	Urban Honolulu, HI	38.64	39.54

Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel and authors' calculations. “High-score” estimates limit the sample to individuals with Equifax Risk Scores in the top third of the distribution.

Table A2. Share of Migrants’ Quarters Spent in Their Destination Metro (Population-Weighted Average, Population ≤500,000)

Area	Migrant retention rate		Area	Migrant retention rate	
	Full sample	High-score		Full sample	High-score
Small metro and rural – Nevada	45.17	44.52	Small metro and rural – Oregon	41.05	38.65
Small metro and rural – New Jersey	43.59	42.27	Small metro and rural – Virginia	41.03	37.87
Small metro and rural – Maryland	43.43	41.98	Small metro and rural – Colorado	40.94	39.80
Small metro and rural – Alabama	43.42	39.76	Small metro and rural – Washington	40.84	39.67
Small metro and rural – Louisiana	43.14	39.01	Small metro and rural – Illinois	40.81	37.41
Small metro and rural – Tennessee	43.09	40.26	Small metro and rural – Montana	40.79	39.20
Small metro and rural – South Carolina	42.97	40.43	Small metro and rural – Florida	40.78	37.49
Small metro and rural – Delaware	42.91	41.60	Small metro and rural – Missouri	40.75	36.97
Small metro and rural – Vermont	42.89	41.63	Small metro and rural – Ohio	40.72	37.33
Small metro and rural – New Hampshire	42.68	42.11	Small metro and rural – California	40.71	39.09
Small metro and rural – Hawaii	42.34	40.88	Small metro and rural – Michigan	40.56	38.67
Small metro and rural – Arkansas	42.33	36.63	Small metro and rural – New Mexico	40.43	35.83
Small metro and rural – Kentucky	42.30	38.37	Small metro and rural – Idaho	40.40	39.14
Small metro and rural – Alaska	42.16	43.68	Small metro and rural – Utah	40.36	39.51
Small metro and rural – West Virginia	42.06	36.95	Small metro and rural – Texas	40.34	35.43
Small metro and rural – Maine	41.94	38.99	Small metro and rural – Massachusetts	40.18	37.44
Small metro and rural – Pennsylvania	41.93	39.84	Small metro and rural – South Dakota	40.16	38.13
Small metro and rural – North Carolina	41.82	39.18	Small metro and rural – Oklahoma	40.04	34.58
Small metro and rural – Georgia	41.63	38.14	Small metro and rural – New York	39.84	37.50
Small metro and rural – Mississippi	41.38	36.83	Small metro and rural – Nebraska	39.33	36.98
Small metro and rural – Indiana	41.20	38.29	Small metro and rural – Iowa	38.63	36.16
Small metro and rural – Wyoming	41.17	41.35	Small metro and rural – Arizona	38.32	35.49
Small metro and rural – North Dakota	41.12	39.02	Small metro and rural – Minnesota	38.26	36.73
Small metro and rural – Connecticut	41.10	40.29	Small metro and rural – Kansas	37.80	34.75
Small metro and rural – Wisconsin	41.09	39.35			

Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel and authors’ calculations. “High-score” estimates limit the sample to individuals with Equifax Risk Scores in the top third of the distribution.