

District Data Brief

How Successful Is Your Region at Retaining Its Native Residents?

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October 24, 2024

Introduction

How can our region stop people from moving away? This question regularly arises in conversations among local leaders across the country. Before asking this question, it would be helpful to know whether one's region is already successful at keeping its native residents. Using long histories of individuals' locations drawn from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel, we can begin to answer this question by measuring retention. We find that Fourth District metros with populations of greater than 1 million are better than average at retaining their natives but that retaining a high share of natives is not associated with strong regional population growth.

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.¹ 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)

¹ 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.

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and we need to observe people when their credit history begins to accurately place them in their home region.

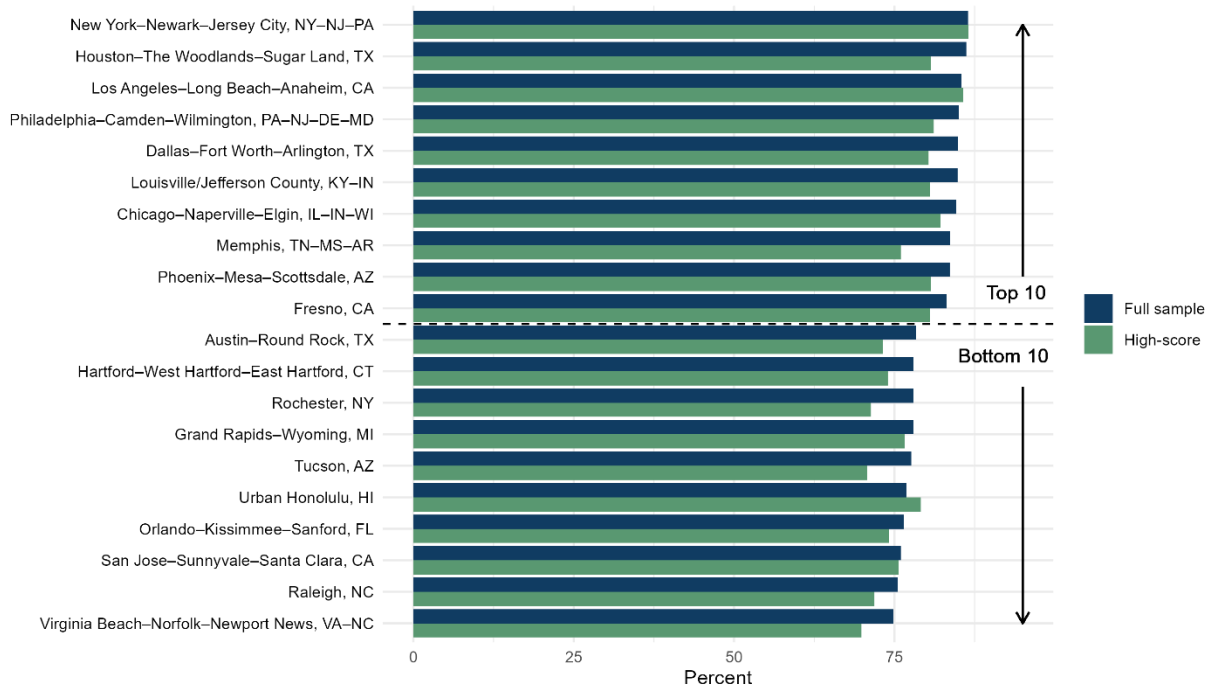
Some of the results presented below are disaggregated by credit score. The score available in the CCP is the Equifax Risk Score. Like other credit scores, it uses information in borrowers' credit records to predict the probability of their becoming delinquent on debts.

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 of Natives

We calculate our measure of native retention by dividing the total number of quarters that native individuals are living in their home region by the total number of quarters we can observe for every person native to that region in the CCP data. Figure 1 shows this measure for the top 10 and bottom 10 large metros nationally in terms of native retention. Among the top 10 large metros, some, including Houston, Dallas, and Phoenix, are fast-growing. Meanwhile, others, such as New York, Los Angeles, Chicago, and Memphis, are slow-growing. The bottom 10 large metros include some that are seeing rapid growth, such as Austin, Orlando, and Raleigh. They also include Honolulu and San Jose, which have some of the highest costs of living in the country.

Figure 1. Share of Natives’ Quarters Spent in Their Original Region (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.

It is reasonable to ask whether remaining in one’s home region is voluntary. People in some regions might stay because they do not have skills that are in demand anywhere else. Additionally, they may lack the savings or credit necessary to move. To understand whether a region is retaining people that could leave if they wanted to, we can focus on individuals with higher Equifax Risk Scores. These are people who have been able to consistently repay their lenders and could borrow to pay for moving expenses. When we calculate the native retention measure for only people with Equifax Risk Scores in the top third of the score distribution (indicated with green bars in Figures 1 and 2), we see that the pattern for these individuals is similar to that for the full sample, but with some notable differences.

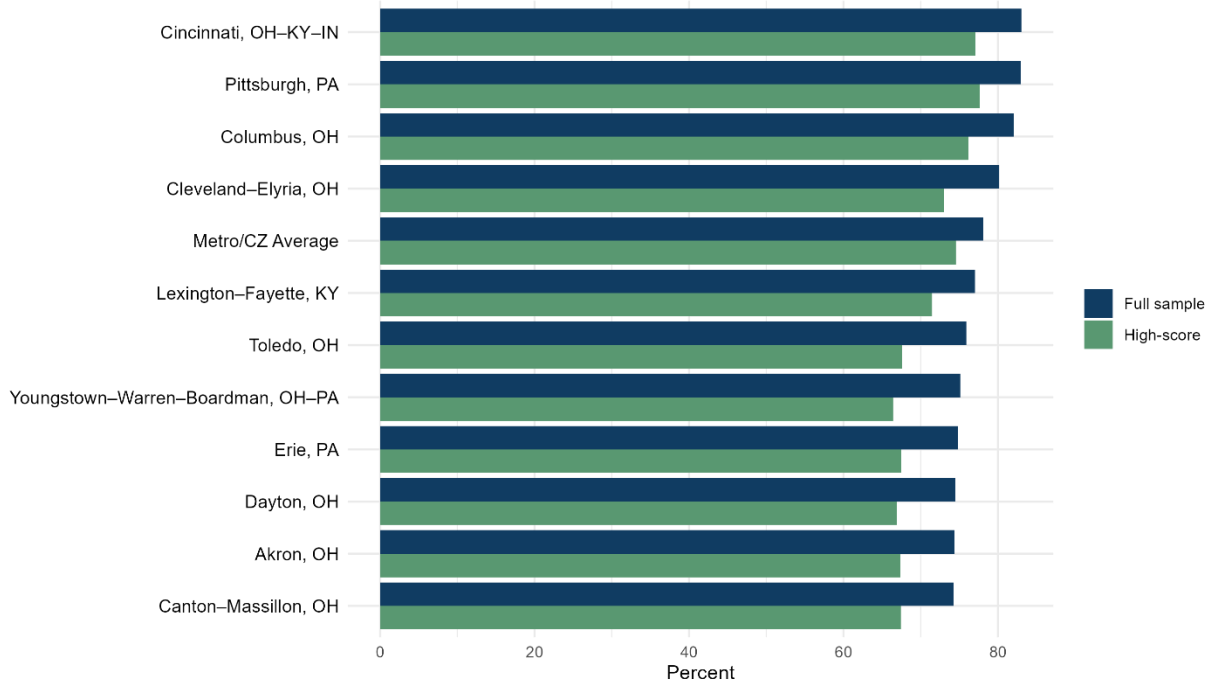
Retention of high-score individuals is usually lower than overall retention. This is intuitive if we recall that higher credit scores are positively related to earning power and earning power generally increases with education. We know from Census data that people who go further in postsecondary education are more likely to search for jobs nationally and move. There are a few exceptions to the pattern of lower retention of high-score individuals, including in San Jose, Honolulu, Los Angeles, and New York. In these cases, very high costs of living may motivate households with weaker finances to move away, making overall retention similar to or below the retention rate of high-score individuals.

If we take an average over all the periods we can observe for all the people in the sample, we find they are retained (that is, living in their home metro) 78 percent of the time. However, when we calculate this

same average for every region, we find a divide between regions with large and small populations. The average retention rate is 72 percent for regions with populations of less than 1 million and 83 percent for those with more than 1 million.

The positive relationship between population size and native retention can be seen in the Fourth District as well. The four most populous metros of the Fourth District have more diversified economies, so natives are more likely to find a good match with an employer and be able to stay near their family and friends. As shown in Figure 2, native retention rates in Cleveland (80.1 percent), Columbus (82.1 percent), Pittsburgh (83 percent), and Cincinnati (83 percent) are all above the national average. The rates of the other Fourth District metros are 1 to 4 percentage points below the national average.

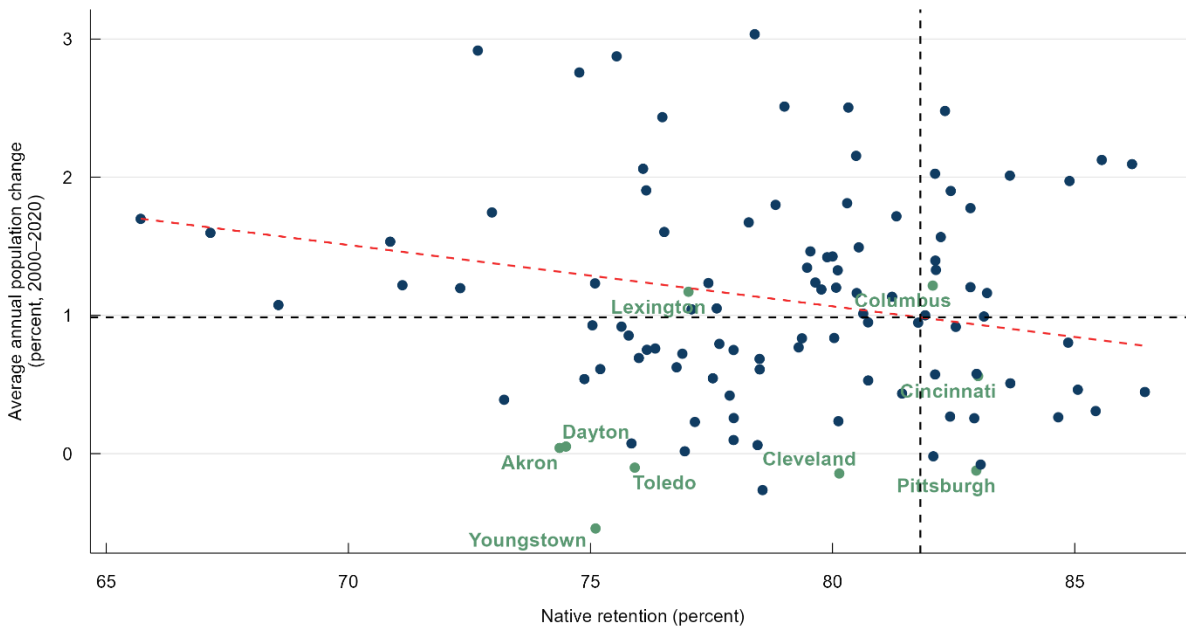
Figure 2. Share of Natives’ Quarters Spent in Their Original Region (Fourth District Metros)



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 population growth against native retention for all US metros with populations of over 500,000. It includes a population-weighted line of best fit to summarize the relationship between the two measures. Arithmetically, every person retained makes population growth higher or population loss smaller. However, the fastest-growing places are not those that are best at retaining people who were born there. Many places that are barely growing retain a higher portion of their natives. Retaining a greater-than-average share of natives is not sufficient to guarantee higher-than-average population growth.

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



Sources: Census Bureau, Federal Reserve Bank of New York/Equifax Consumer Credit Panel, and authors' calculations. The Fourth District metros are indicated by green markers and labels.

Conclusion

In this analysis, we learned that variation in native retention rates is quite narrow across the United States. Most regions retain their natives for between 75 and 85 percent of the time that we can observe them, with the national average at 78 percent. More populous regions generally have higher retention rates. Returning to the question of whether our regions are already successful at retaining natives, we have learned that, among Fourth District metros, Cincinnati, Columbus, Pittsburgh, and Cleveland compare favorably to the national average on this dimension, with retention rates of 80 to 83 percent. Rather than guaranteeing regions grow their populations, native retention appears to have, if anything, a negative relationship to population growth. This suggests regions that are growing must be doing so by attracting people from outside the region to move in and stay. We will examine this further in an upcoming *District Data Brief*.

Table A1. Share of Natives' Quarters Spent in Their Original Region (Populations >500,000)

Metro area	Native retention rate		Metro area	Native retention rate	
	Full sample	High-score		Full sample	High-score
New York–Newark–Jersey City, NY–NJ–PA	86.45	86.54	Washington–Arlington–Alexandria, DC–VA–MD–WV	79.47	76.33
Houston–The Woodlands–Sugar Land, TX	86.18	80.63	Chattanooga, TN–GA	79.37	72.55
McAllen–Edinburg–Mission, TX	85.56	79.86	San Diego–Carlsbad, CA	79.30	79.10
Los Angeles–Long Beach–Anaheim, CA	85.43	85.74	Boise City, ID	79.01	77.08
Philadelphia–Camden–Wilmington, PA–NJ–DE–MD	85.06	81.11	Ogden–Clearfield, UT	78.82	79.04
Dallas–Fort Worth–Arlington, TX	84.89	80.30	New Orleans–Metairie, LA	78.55	74.86
Louisville/Jefferson County, KY–IN	84.86	80.51	Wichita, KS	78.49	74.18
Chicago–Naperville–Elgin, IL–IN–WI	84.66	82.15	San Francisco–Oakland–Hayward, CA	78.49	79.81
Memphis, TN–MS–AR	83.67	76.02	Scranton–Wilkes–Barre–Hazleton, PA	78.45	71.93
Phoenix–Mesa–Scottsdale, AZ	83.66	80.69	Austin–Round Rock, TX	78.39	73.24
Fresno, CA	83.19	80.55	Des Moines–West Des Moines, IA	78.27	73.57
Minneapolis–St. Paul–Bloomington, MN–WI	83.13	81.51	Hartford–West Hartford–East Hartford, CT	77.96	73.97
Detroit–Warren–Dearborn, MI	83.06	79.29	Rochester, NY	77.96	71.36
Cincinnati, OH–KY–IN	83.01	77.09	Grand Rapids–Wyoming, MI	77.95	76.58
Birmingham–Hoover, AL	82.97	77.81	Albany–Schenectady–Troy, NY	77.87	73.37
Pittsburgh, PA	82.97	77.65	Lancaster, PA	77.66	75.35
St. Louis, MO–IL	82.93	78.70	Tucson, AZ	77.61	70.71
Atlanta–Sandy Springs–Roswell, GA	82.85	78.63	Oxnard–Thousand Oaks–Ventura, CA	77.53	76.77
Indianapolis–Carmel–Anderson, IN	82.85	77.16	Columbia, SC	77.43	69.84
Baton Rouge, LA	82.54	75.01	New Haven–Milford, CT	77.16	71.48
Nashville–Davidson–Murfreesboro–Franklin, TN	82.44	79.28	Modesto, CA	77.09	75.27
Providence–Warwick, RI–MA	82.43	78.41	Lexington–Fayette, KY	77.02	71.48
Las Vegas–Henderson–Paradise, NV	82.32	80.83	Springfield, MA	76.95	69.88
Bakersfield, CA	82.23	80.67	Urban Honolulu, HI	76.90	79.10
Oklahoma City, OK	82.13	77.76	Worcester, MA–CT	76.78	72.20
Seattle–Tacoma–Bellevue, WA	82.12	82.15	Stockton–Lodi, CA	76.52	73.89
Boston–Cambridge–Newton, MA–NH	82.12	80.16	Orlando–Kissimmee–Sanford, FL	76.48	74.15
San Antonio–New Braunfels, TX	82.12	74.36	Harrisburg–Carlisle, PA	76.34	72.29
Buffalo–Cheektowaga–Niagara Falls, NY	82.08	76.43	Allentown–Bethlehem–Easton, PA–NJ	76.16	70.71
Columbus, OH	82.07	76.19	Charleston–North Charleston, SC	76.15	66.55
Miami–Fort Lauderdale–West Palm Beach, FL	81.91	78.78	Lakeland–Winter Haven, FL	76.09	70.50
Kansas City, MO–KS	81.77	77.45	San Jose–Sunnyvale–Santa Clara, CA	76.00	75.68
Jackson, MS	81.43	73.87	Toledo, OH	75.91	67.62
Riverside–San Bernardino–Ontario, CA	81.32	80.08	Syracuse, NY	75.85	69.16
Albuquerque, NM	81.23	77.75	Winston–Salem, NC	75.79	68.36
Baltimore–Columbia–Towson, MD	80.74	75.60	Greensboro–High Point, NC	75.64	69.61
Knoxville, TN	80.73	75.01	Raleigh, NC	75.54	71.85
Little Rock–North Little Rock–Conway, AR	80.63	77.26	Portland–South Portland, ME	75.20	72.00
Denver–Aurora–Lakewood, CO	80.54	78.58	Youngstown–Warren–Boardman, OH–PA	75.10	66.44
Omaha–Council Bluffs, NE–IA	80.50	76.64	Spokane–Spokane Valley, WA	75.09	72.09
Charlotte–Concord–Gastonia, NC–SC	80.49	74.96	Augusta–Richmond County, GA–SC	75.04	66.00
Fayetteville–Springdale–Rogers, AR–MO	80.33	75.75	Virginia Beach–Norfolk–Newport News, VA–NC	74.87	69.86
Jacksonville, FL	80.30	75.84	Cape Coral–Fort Myers, FL	74.77	71.28
Cleveland–Elyria, OH	80.14	73.06	Dayton, OH	74.49	66.91
Milwaukee–Waukesha–West Allis, WI	80.12	75.36	Akron, OH	74.36	67.39
Portland–Vancouver–Hillsboro, OR–WA	80.11	77.73	Bridgeport–Stamford–Norwalk, CT	73.22	69.75
El Paso, TX	80.07	74.72	North Port–Sarasota–Bradenton, FL	72.96	68.86
Tulsa, OK	80.03	75.67	Provo–Orem, UT	72.67	72.96
Sacramento–Roseville–Arden–Arcade, CA	80.00	79.18	Madison, WI	72.31	69.93
Tampa–St. Petersburg–Clearwater, FL	79.89	76.18	Palm Bay–Melbourne–Titusville, FL	71.12	66.15
Richmond, VA	79.77	74.60	Deltona–Daytona Beach–Ormond Beach, FL	70.86	65.44
Greenville–Anderson–Mauldin, SC	79.64	70.35	Durham–Chapel Hill, NC	67.15	60.30
Salt Lake City, UT	79.54	77.76	Colorado Springs, CO	65.71	60.78

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 Natives' Quarters Spent in Their Original Region (Population-Weighted Average, Populations ≤500,000)

Area	Native retention rate		Area	Native retention rate	
	Full sample	High-score		Full sample	High-score
Small metro and rural – Hawaii	77.19	74.72	Small metro and rural – North Carolina	69.56	63.81
Small metro and rural – Louisiana	76.07	70.70	Small metro and rural – Connecticut	68.95	64.75
Small metro and rural – Delaware	75.71	71.75	Small metro and rural – Ohio	68.77	63.54
Small metro and rural – West Virginia	74.51	66.50	Small metro and rural – New York	68.56	63.46
Small metro and rural – Alabama	74.31	66.84	Small metro and rural – New Hampshire	68.47	63.29
Small metro and rural – Kentucky	73.98	68.05	Small metro and rural – Florida	68.40	64.21
Small metro and rural – New Jersey	73.15	69.04	Small metro and rural – Washington	68.18	65.54
Small metro and rural – Tennessee	73.05	68.83	Small metro and rural – Oregon	67.64	64.21
Small metro and rural – Maryland	72.71	68.30	Small metro and rural – Missouri	67.61	63.10
Small metro and rural – California	72.53	71.31	Small metro and rural – Michigan	67.10	63.06
Small metro and rural – Pennsylvania	71.59	66.94	Small metro and rural – Wisconsin	66.49	63.15
Small metro and rural – Mississippi	71.53	65.02	Small metro and rural – Oklahoma	66.42	61.96
Small metro and rural – Massachusetts	71.47	66.86	Small metro and rural – Arizona	65.14	61.97
Small metro and rural – South Carolina	71.43	64.00	Small metro and rural – North Dakota	65.11	62.24
Small metro and rural – Nevada	71.17	71.01	Small metro and rural – Utah	64.57	64.43
Small metro and rural – Georgia	71.05	64.60	Small metro and rural – Wyoming	64.13	61.27
Small metro and rural – Arkansas	70.88	66.71	Small metro and rural – Montana	64.08	60.70
Small metro and rural – Maine	70.86	65.01	Small metro and rural – Idaho	63.91	61.26
Small metro and rural – Virginia	70.57	63.90	Small metro and rural – South Dakota	63.89	59.25
Small metro and rural – Vermont	70.48	65.74	Small metro and rural – Nebraska	63.75	58.83
Small metro and rural – Illinois	70.33	64.89	Small metro and rural – Colorado	63.16	61.34
Small metro and rural – Indiana	70.17	65.20	Small metro and rural – Minnesota	63.06	59.91
Small metro and rural – Alaska	70.11	70.20	Small metro and rural – Iowa	62.74	57.30
Small metro and rural – Texas	69.98	62.65	Small metro and rural – Kansas	61.33	57.81
Small metro and rural – New Mexico	69.85	62.71			

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.