The Demographics of Urban Migrants Since the Pandemic

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Introduction

Has the pandemic and the shift to hybrid work altered the demographics of urban neighborhoods? To answer this question, I break out people moving into and out of urban neighborhoods by five demographic measures—age, credit score, income, homeownership, and ethnicity—and find that net migration out of those neighborhoods has increased for almost all types of people since the pandemic began in early 2020. However, in 2022 and in the first three quarters of 2023, migration patterns for demographic groups have moved back toward—but have not reached—their prepandemic levels nationally. At the metro level, the changes in migration into and out of urban neighborhoods were widespread across demographic groups rather than being concentrated, for example, among certain ages or income levels. This has left the demographic composition of metro areas' typical urban migrants only modestly changed since the pandemic began.

The migration flows reported here are estimated using the Federal Reserve Bank of New York/Equifax Consumer Credit Panel (CCP). This is an anonymous, random 5 percent sample drawn from the credit histories maintained by Equifax. The CCP is updated quarterly, and data are available through the third quarter of 2023. To approximate an annual estimate for 2023, the migrant counts from Q1 through Q3 of 2023 are scaled up (multiplied by 4/3). This Data Brief is part of a series that explores migration trends for urban neighborhoods across the US (Whitaker, 2023). Urban neighborhoods are census tracts in populous metro areas that are either high-density, with over 7,000 people per square mile, or were developed before WWII,

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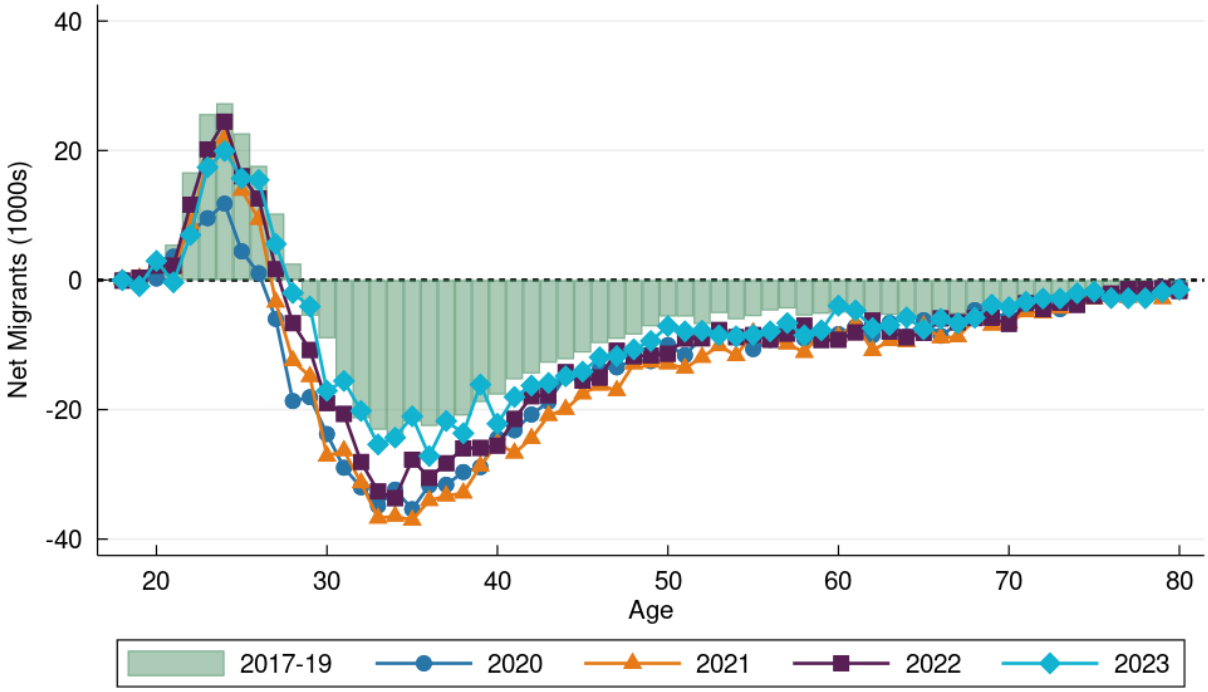
when development focused on pedestrians. Further details about measuring migration and designating urban neighborhoods can be found in the Appendix.

How Has Net Migration by Age Changed for Urban Neighborhoods?

Since the pandemic began, net flows of people in every age group, from students to retirees, have been less favorable to urban neighborhoods, contributing either to declining populations or slower growth. Figure 1 presents net migration to and from urban neighborhoods by age. The prepandemic (2017-2019) average is represented by the green bars. In 2020, the inflow of people aged 18 to 27 into urban neighborhoods declined 75 percent from the prepandemic average. It partially recovered in 2021, but in 2022, it remained down by 29 percent. For people between the ages of 28 and 39, outflows in 2021 were 74 percent higher than the prepandemic average, and remained 43 percent higher in 2022. Flows for people in their late 20s and 30s have been quite close to the prepandemic pace in the first three quarters of 2023, but that could change when the fourth quarter is observed. Among people in their 40s, net outflows from urban neighborhoods were 64 percent above prepandemic levels in 2021 and 37 percent above in 2022. Older cohorts, including people in their 50s, 60s, and 70s, all display an outflow pattern similar to that of people in their 40s.

While the age distribution plays a role in net urban migration, we should not mistakenly believe that an urban exodus was inevitable due to the aging of millennials. As an illustration, consider that in the three years before the pandemic, net urban outmigration was averaging 83,000 people per quarter. If we take the net migration rates of each age cohort in the prepandemic period and multiply them by the age cohort sizes in the postpandemic period, the estimate implies that net migration out of urban neighborhoods would increase to 87,000 per quarter. This reflects the fact that there are now more millennials in their 30s, which is the peak age group for leaving urban neighborhoods. The actual observed net migration out of urban neighborhoods has averaged 163,000 per quarter since the pandemic began. The aging of millennials and the smaller cohorts of people in their early 20s can explain only a small fraction of the change observed since the pandemic.

Figure 1: Net Migration (In-migrants−Outmigrants) for Urban Neighborhoods by Age

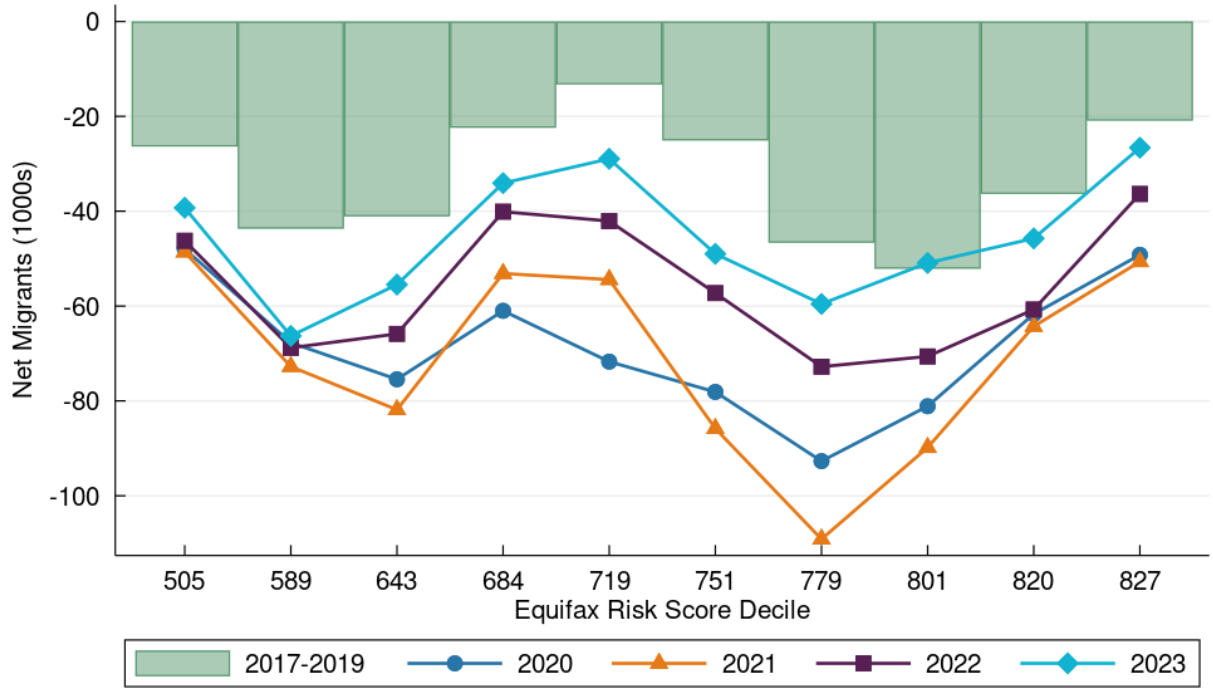


Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.

Are People with Better Credit Leaving Urban Neighborhoods?

As with people of all ages being less likely to choose urban neighborhoods in the pandemic and postpandemic years, net outmigration from urban neighborhoods was higher regardless of people's credit scores: low, middle, or upper. The CCP reports the Equifax Risk Score for each borrower each quarter, and this score can serve as a measure of financial health and access to credit. The score uses credit history data to predict borrowers' probability of becoming delinquent on their debts. Higher scores suggest a lower risk of default. As can be seen in Figure 2, in 2020, the outflows at every decile increased. In 2021, strong additional net outflows occurred for people with scores in the upper 700s (deciles 6, 7, and 8). In 2022 and through the first three quarters of 2023, the distribution shifted back toward the prepandemic pattern, but with higher levels of outmigration in nine out of ten deciles of the Equifax Risk Score.

Figure 2: Net Migration (In-migrants−Outmigrants) for Urban Neighborhoods by Decile of Migrant's Equifax Risk Score

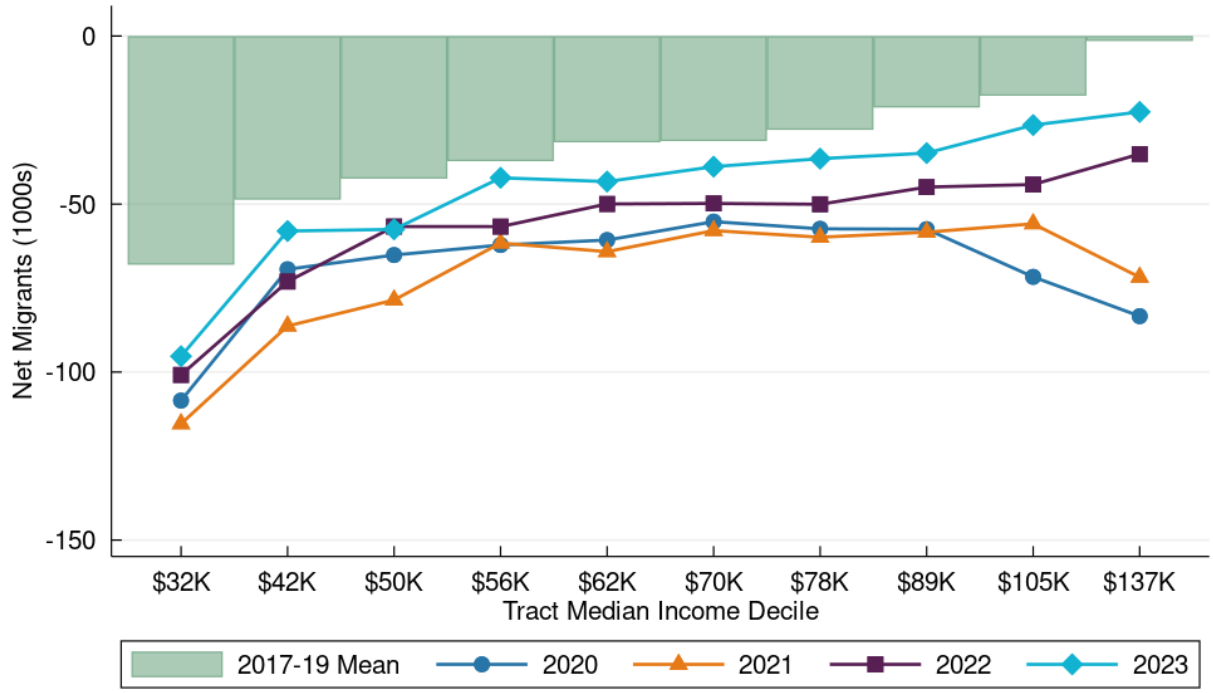


Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. The horizontal axis labels are the median scores among individuals in the decile. Sources: Federal Reserve Bank of New York/Equifax Con-sumer Credit Panel, US Census Bureau, and author's calculations. Graph values are available in Appendix Table A9.

Are High-Income People Leaving Urban Neighborhoods?

In Figure 3, we can see that in 2020 and 2021, net migration was unusually negative for high- income urban neighborhoods. However, the relationship between net migration and income is returning to its prepandemic pattern. The income values are assigned to movers based on the median household income of the urban census tract they are arriving in or leaving from. The CCP does not have an individual or household income measure.

Figure 3: Net Migration (In-migrants−Outmigrants) for Urban Neighborhoods by Income Decile of the Urban Neighborhood



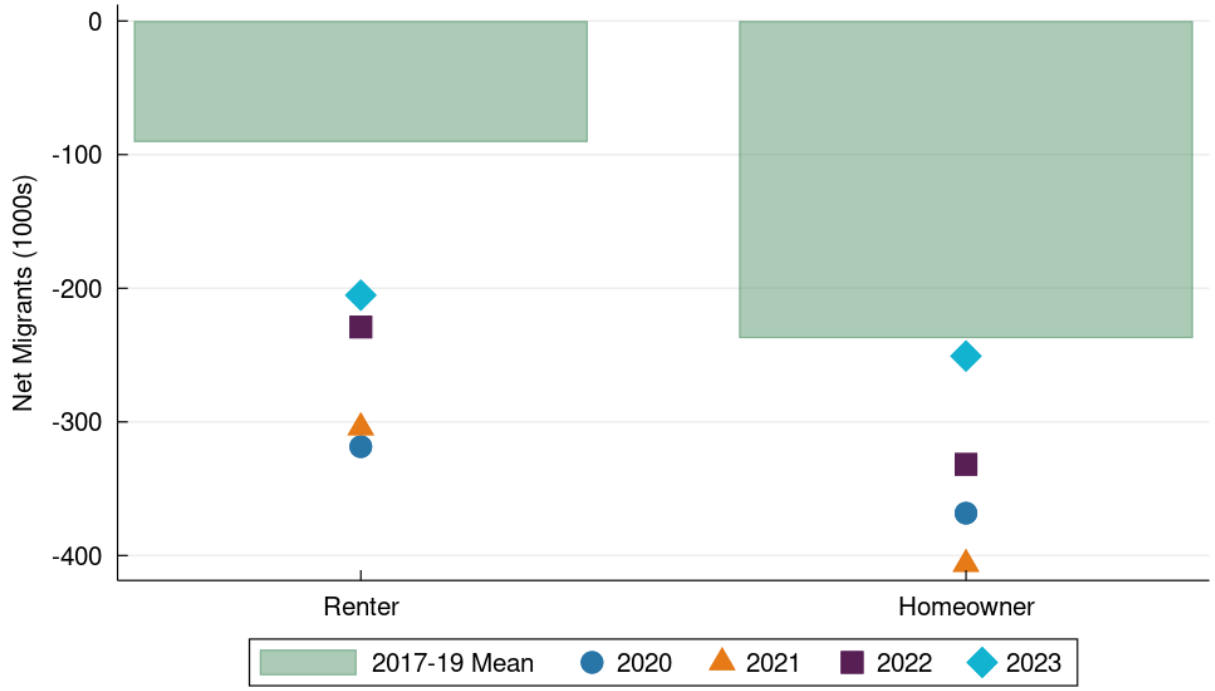
Income is the census tract median household income as measured in the 2015-2019 American Community Surveys. The horizontal axis labels are the median tract incomes among individuals in the decile. Esti-mates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations. Graph values are available in Appendix Table A9.

Are Homeowners Leaving Urban Neighborhoods?

In the national aggregates presented in Figure 4, the net migration of homeowners was elevated by 169,000 migrants in 2021, which corresponds to a nationwide surge in home sales that year.[1] However, the additional net outflow of renters from urban neighborhoods in 2021 was even larger, at 213,000. The estimates for 2022 reflect a slowdown in net outmigration for both renters and homeowners. The preliminary estimate for 2023 (the first three quarters' count scaled up to approximate an annual total) suggests that the elevated net outmigration from urban neighborhoods, relative to the prepandemic average, is now concentrated among renters.

[1]In the CCP, having a mortgage balance serves as the indicator that a person is a homeowner rather than a renter. This is easily observed in the quarters before someone moves, but if people take a few months to purchase a home in their new location, they might be misclassified. For consistency, the percentage of movers presented in Figure 4 includes movers who have any mortgage balance in the year before or the quarter after they move. It might be best to think of these as people who were able to get a mortgage and had a desire to own a home, even though some may be transitioning back to renting when they move.

Figure 4: Net Migration (In-migrants−Outmigrants) for Urban Neighborhoods by Renter versus Homeowner Status



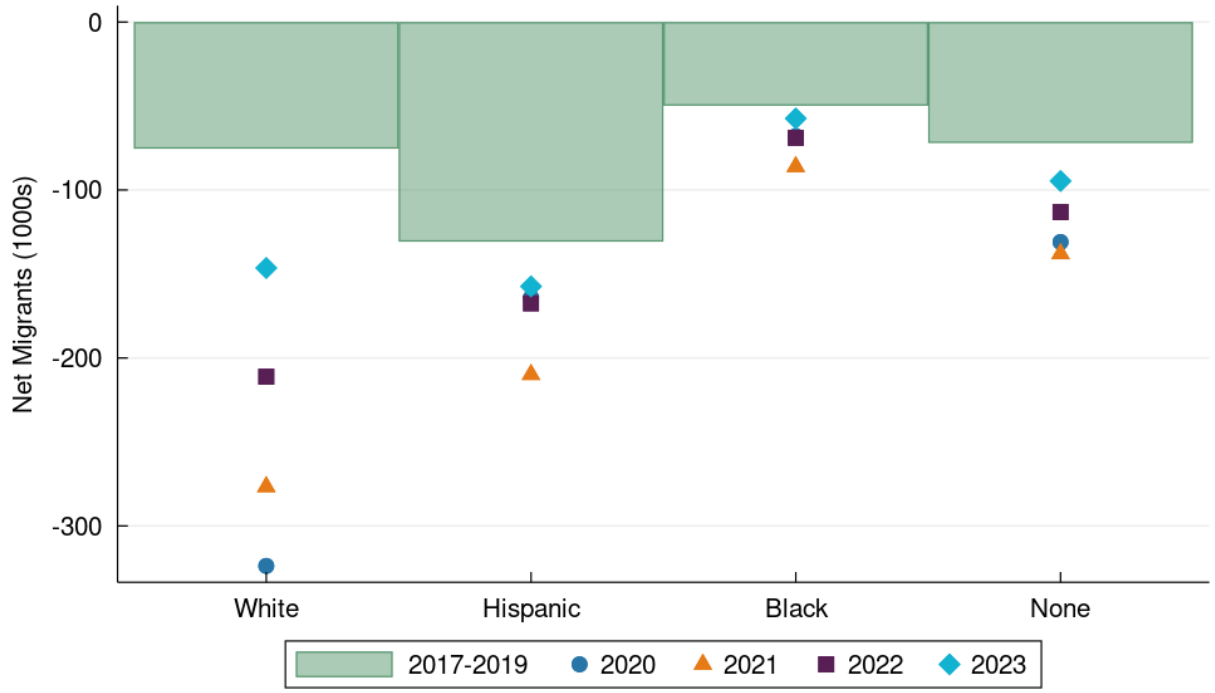
Home purchasing is measured by positive mortgage balances in the year before the move or the quarter fol-lowing the move. Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations. Graph values are available in Appendix Table A9.

Could the Pandemic Alter the Racial or Ethnic Composition of Urban Neighborhoods?

In each year since the pandemic, the net outmigration from majority-white urban neighbor- hoods has been the highest among four types of neighborhoods grouped by race and ethnicity compared with prepandemic norms (Figure 5).[2] Other things being equal, this will probably decrease the share of America's urban population that is white. As with the other demographic measures presented above, the 2022 and 2023 estimates for neighborhood migration patterns display a brisk return to normal.

[2]Credit histories do not record individual borrowers' race or ethnicity.

Figure 5: Net Migration (In-migrants−Outmigrants) for Urban Neighborhoods by the Neighborhood's Racial and Ethnic Composition in 2019



Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations. Graph values are available in Appendix Table A9.

Are There Important Demographic Changes for Individual Metro Areas?

Very few metros have displayed substantial changes in the demographics of the people moving into or out of their urban neighborhoods. In a set of tables below (Table 1 and Tables A2 through A8), we can see changes from the prepandemic norms to the postpandemic levels for the 33 metro areas that have over 250,000 residents in their urban neighborhoods. The statistics are the mean or median of the measures discussed above. The values are shaded green if there are increases and red if there are decreases. Changes above a moderate threshold, which are more likely to have important consequences, are highlighted with darker shades.[3]

[3]In each case, I tested whether the changes in levels were statistically significant. The differences were significant in most cases. However, when working with big data such as the CCP, it is often the case that fairly large sample sizes cause the standard errors to be very small, and small changes in the measure of interest meet the criteria to be statistically significant (Whitaker, 2018). However, I do not highlight all statistically significant differences because the vast majority are not "economically" significant. That is, the changes or differences are too small to matter. Table A1 displays the distributions of the measure for the 37 metro areas with populations above 2 million. The thresholds were selected by looking at the standard deviations and interquartile ranges of the measures and considering what type of change would be needed to move a metro up or down in the ranks by more than a few notches. The thresholds are subjective, but readers can substitute their own.

We might predict that in some urban areas with high concentrations of remote-capable workers in central business districts, there could be a shift to younger, lower-income households filling housing units in the urban neighborhoods vacated by hybrid workers opting for suburban housing. However, in most major metros, the median ages of urban movers have either remained the same or changed by just one year. Among the metros that saw larger changes, the in-migrants to urban neighborhoods have become older in most cases. An exception is Phoenix, where the median age of people entering urban neighborhoods dropped from an unusually high 37 down to 34.

What is remarkable about Table 1 and Tables A2 through A8 is that they suggest that the demographics of people arriving in and leaving the urban neighborhoods of each metro area have been very steady. In Table A4, we can see increases in outmigrants who are homebuyers, but this is so widespread, it is a national rather than a local phenomenon. In the other measures, only a handful of metros display large changes, and most of the larger changes are tem- porary rather than persistent. The stability of the means and medians of age, credit score, income, and the ethnic majority measures suggests that the postpandemic increases in net outmigration from urban neighborhoods were broad-based rather than heavily concentrated among specific demographic groups.

Table 1: Median Age of Migrants to and from Urban Neighborhoods

	In-migrants					Outmigrants				
Metro Area	2017-19	2020	2021	2022	2023	2017-19	2020	2021	2022	2023
All Metro Areas	34	35	35	35	35	36	36	36	36	37
New York	35	36	36	36	36	37	37	37	37	37
Los Angeles	36	36	36	36	37	38	38	38	38	38
San Francisco-San Jose	34	35	35	35	35	6	36	36	36	36
Chicago	33	34	33	33	33	36	36	36	36	36
Boston	33	33	33	33	33	35	36	35	35	36
Washington-Baltimore	34	34	34	34	34	36	36	36	36	36
Miami	40	40	40	40	40	41	41	41	41	41
Philadelphia	33	34	34	34	35	36	36	36	36	36
San Diego	34	33	34	34	33	35	35	35	35	36
Houston	35	35	35	35	35	36	36	36	36	36
Phoenix	37	36	35	34	34	36	35	35	35	35
Dallas	33	34	34	33	33	35	35	35	35	35
Las Vegas	39	39	38	39	39	39	39	39	39	40
Seattle	33	33	33	32	32	35	34	34	34	34
Denver	32	32	32	32	32	34	34	34	34	34
Portland	34	34	34	35	35	36	36	36	36	36
Cleveland	34	34	34	34	34	35	35	36	35	35
Detroit	34	35	34	34	35	34	35	34	35	35
Sacramento	35	35	35	35	35	36	36	37	37	37
Minneapolis	32	32	33	32	33	34	33	34	34	35
Milwaukee	32	32	32	32	33	35	36	35	34	34
Pittsburgh	33	33	32	32	34	35	35	36	35	36
Honolulu	34	34	34	33	34	35	35	34	36	34
Salt Lake City	31	31	31	31	31	33	33	33	33	33
San Antonio	35	34	36	36	36	36	36	36	36	36
Buffalo	32	35	34	32	33	32	33	33	34	34
Columbus	31	31	32	32	33	34	33	34	34	33
St. Louis	33	33	34	34	33	35	35	36	36	36
New Orleans	33	34	34	33	37	35	35	37	35	35
Albany	32	34	31	34	35	35	37	37	37	37
Cincinnati	32	32	32	33	31	34	34	34	34	34
Fresno	34	32	35	39	36	36	33	35	36	36
Atlanta	32	32	32	31	32	35	35	35	35	35

Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Green/red shading indicates that the value is higher/ lower than the prepandemic average. Darker shading indicates that the median migrant's age differed by more than two years from the 2017-2019 median. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.

Conclusion

In 2022 and the first three quarters of 2023, net migration remained less favorable to urban neighborhoods than before the pandemic. The postpandemic net outmigration has slowed from a surge, but remains above its prepandemic trend and appears to be making urban populations smaller than they would otherwise be.

This less favorable migration is widely spread across demographics such that the typical person moving into or out of an urban neighborhood is similar to the typical person making that same type of move before the pandemic. This is true for both individual metros and the US as a whole. The net outmigration is accelerating changes in the age, credit risk, income, home ownership, and ethnic mix of urban neighborhoods in line with patterns established before the pandemic.

References

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Appendix

Measuring Migration Using Credit Histories

The flows reported in this Data Brief are estimated using the Federal Reserve Bank of New York/Equifax Consumer Credit Panel (CCP). This is an anonymous, random 5 percent sample drawn from the credit histories maintained by Equifax. Each month, Equifax receives reports from all types of lenders, including credit card companies and servicers of mortgages, student loans and auto loans. The reports contain information on payments and outstanding balances, as well as mailing addresses. Equifax employs an algorithm that considers all of the addresses reported for a person and identifies the most likely current residence. Equifax anonymizes all the data, removing names, Social Security numbers, and street addresses, before adding the data to the CCP, but the census block of the street address is reported in the CCP. Using a unique random identifier for each borrower, researchers can observe if someone moves to a different census block during a quarter. For more details about the CCP and its use in measuring migration, see Lee and Van der Klaauw (2010) and DeWaard, Johnson, and Whitaker (2019).

Definitions

This Data Brief follows several previous publications in defining urban neighborhoods as census tracts with population densities above 7,000 people per square mile or those with over half of their housing stock built before World War II (Whitaker, 2019a,b). To be classified as urban, the pre-war neighborhoods must have a density of at least 2,000 people per square mile so that they can continue to function as an urban neighborhood even if their population has fallen far below a mid-20th century peak. The neighborhoods must also be in metro areas of at least 500,000 because we generally associate the concept of "urban" with major population centers rather than the historic main streets found in small cities and towns.

The metropolitan areas in this report are combined statistical areas. This is the most aggregate definition of metro areas, and it combines, for example, Washington DC with Baltimore, San Jose with San Francisco, Akron with Cleveland, etc. Metro areas are combinations of counties that are tightly linked by worker commutes and other economic activity.

Economic Significance Thresholds

Table A1: Distributions of Migrants' Characteristics among Metropolitan Areas (CSAs) and the Thresholds Selected for Highlighting

Demographic Measure	Percentile			Inter Quartile Range	Standard Deviation	Threshold	Percent of IQR	Percent of SD
	25th	50th	75th					
Median Age	34.00	35.00	36.00	2.00	2.76	2.00	100	73
Equifax Risk Score	669	694	711	42	24	15	36	62
Median Income	$54,610	$65,114	$70,046	$15,436	$15,004	$3,000	19	20
Homeownership	23	26	29	5	3	2	38	63
Neighborhood Ethnic/Racial Majority:								
Majority White	59	75	82	24	19	5	21	26
Majority Hispanic	1	4	17	15	20	4	26	20
Majority Black	0	7	14	9	3	3	22	35
None	3	6	16	12	10	3	25	31

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

Changes in Demographic Measures for Migrants to and from Urban Neighborhoods of Major Metros

Table A2: Median Equifax Risk Score of Migrants to and from Urban Neighborhoods

	In-migrants					Outmigrants				
Metro Area	2017-19	2020	2021	2022	2023	2017-19	2020	2021	2022	2023
All Metro Areas	700	698	697	701	703	702	705	704	706	705
New York	708	708	710	715	717	721	724	722	725	726
Los Angeles	710	709	711	712	714	713	715	718	717	717
San Francisco-San Jose	734	734	731	737	734	739	741	743	743	741
Chicago	711	705	700	707	711	706	705	703	710	708
Boston	718	718	714	719	719	722	725	723	724	725
Washington-Baltimore	708	706	705	708	712	703	706	708	709	708
Miami	670	668	672	679	680	676	677	683	686	685
Philadelphia	699	695	692	697	697	699	701	699	700	704
San Diego	710	705	710	714	716	716	719	721	725	720
Houston	663	656	652	655	655	668	671	666	664	660
Phoenix	642	649	655	656	658	670	672	676	675	676
Dallas	663	655	655	661	667	675	679	674	680	683
Las Vegas	661	662	660	662	663	673	673	669	674	674
Seattle	729	732	725	730	729	732	736	737	739	737
Denver	714	713	708	708	709	722	727	723	722	725
Portland	711	715	706	711	713	720	722	719	723	721
Cleveland	653	649	646	641	645	657	659	652	663	653
Detroit	644	648	646	643	639	667	673	673	666	662
Sacramento	691	697	693	697	693	702	713	709	714	709
Minneapolis	715	715	708	707	711	721	722	717	718	721
Milwaukee	687	681	678	678	680	701	695	682	680	684
Pittsburgh	697	694	688	686	696	701	697	699	695	696
Honolulu	717	716	723	721	729	721	728	726	723	730
Salt Lake City	707	702	703	701	706	713	717	712	716	712
San Antonio	639	641	637	639	641	648	656	654	652	660
Buffalo	673	677	679	687	697	695	709	707	712	715
Columbus	678	670	671	668	679	684	680	673	678	685
St. Louis	703	692	691	688	699	694	688	693	694	699
New Orleans	690	682	691	681	707	686	685	697	697	689
Albany	687	665	679	690	681	709	713	716	722	704
Cincinnati	683	683	677	679	694	688	680	680	685	681
Fresno	672	652	662	679	675	689	695	696	695	703
Atlanta	677	670	665	681	679	666	674	669	672	670

Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations. Note: Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Green/red shading indicates that the value is higher/lower than the prepandemic average. Darker shading indicates that the median migrant's score was more than 15 points different from the 2017–2019 median.

Table A3: Census Tract Median Household Income of Migrants to and from Urban Neighborhoods

	In-migrants					Outmigrants				
Metro Area	2017-19	2020	2021	2022	2023	2017-19	2020	2021	2022	2023
All Metro Areas	63859	63214	63269	62863	62586	63027	63462	63084	62404	61825
New York	76471	74150	74897	74777	73385	71875	73594	72000	71111	70396
Los Angeles	71250	70486	70682	70056	69817	70491	70658	69215	68988	68839
San Francisco-San Jose	94620	94688	96118	94688	94653	87917	89492	90769	88256	85769
Chicago	67346	65459	65474	65459	65463	63009	62416	60969	61193	60455
Boston	66793	66923	65787	65703	64872	65058	65580	65580	64271	64185
Washington-Baltimore	83571	83168	85724	83356	84157	74236	75873	75515	75622	73241
Miami	52930	53543	53543	52734	52863	54074	54399	54510	54566	53988
Philadelphia	58872	58663	58673	57560	57017	59010	58872	58872	57132	57389
San Diego	67946	67535	67535	66225	66113	68679	67762	67596	67596	67237
Houston	57500	55625	57500	56250	55625	54578	55313	54578	54295	53286
Phoenix	42853	44152	44958	46524	46262	51169	51085	51074	50726	50424
Dallas	56834	56118	56530	56834	56941	56530	56834	56733	56834	56834
Las Vegas	59859	60000	59167	59750	59859	61526	61757	61535	60764	59859
Seattle	79539	78806	78632	77198	78632	75162	74861	76352	76124	76124
Denver	62931	62931	62569	62826	62569	63261	64059	64059	63261	62283
Portland	66280	66280	63125	63944	63027	66280	66635	66280	66280	64026
Cleveland	40417	40224	40078	40000	39672	42188	42350	42500	42188	40000
Detroit	38389	38786	38684	38684	37630	41867	43041	43992	41366	41644
Sacramento	58960	59478	59203	58433	58068	63661	67094	67624	65114	67159
Minneapolis	59301	60498	59301	59301	59301	59301	60649	60548	58794	59301
Milwaukee	50966	48155	47500	47500	47500	51712	50761	48398	47500	48731
Pittsburgh	48421	47236	48047	48073	48586	49444	50156	49792	49792	48073
Honolulu	73551	73428	74293	73584	73428	73886	75050	77882	71212	73642
Salt Lake City	52450	53281	53281	52450	51920	54208	58218	59513	57582	54208
San Antonio	47127	47127	47127	47127	47127	50893	50938	49950	50904	49306
Buffalo	50758	51626	48628	49554	55389	62148	64581	61982	59230	63076
Columbus	44368	43938	43952	43929	43176	46198	44362	44455	44193	44261
St. Louis	55042	55000	54762	54523	54762	55373	55042	55000	55042	55536
New Orleans	61124	60538	56548	54844	59958	67036	68239	63980	63304	69648
Albany	52853	52457	52000	51170	50708	72125	73333	74983	71518	71389
Cincinnati	47923	46908	47908	46897	47908	49333	47908	47456	46920	46897
Fresno	47733	51667	45279	45619	47993	71743	69132	69358	68212	69420
Atlanta	60003	60731	58958	60731	62656	56339	56402	56957	56724	56750

The incomes are measured when the migrants are in their urban neighborhood. Income is measured after they arrive in the urban neighborhood for in-migrants and before they leave the urban neighborhood for outmigrants. Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Green/red shading indicates that the value is higher/lower than the prepandemic average. Darker shading indicates that the median household income in the median migrant's tract was more than $3,000 different from the median household income in the median migrants' tract in 2017 to 2019. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.

Table A4: Percent of Migrants to and from Urban Neighborhoods Who Are Homeowners

	In-migrants					Outmigrants				
Metro Area	2017-19	2020	2021	2022	2023	2017-19	2020	2021	2022	2023
All Metro Areas	23.4	24.6	24.0	23.2	22.4	27.5	29.5	29.6	28.4	26.4
New York	23.9	25.5	24.5	24.1	23.7	30.1	32.3	32.9	31.7	29.5
Los Angeles	25.1	25.7	25.9	24.9	23.6	29.4	29.9	31.9	29.8	27.2
San Francisco-San Jose	24.7	25.7	26.2	25.8	24.9	28.8	30.6	31.8	29.6	27.6
Chicago	23.5	25.1	23.8	25.1	23.8	30.6	33.1	33.5	33.1	31.6
Boston	22.3	24.5	23.7	22.2	21.8	30.8	33.1	32.3	31.6	29.3
Washington-Baltimore	24.8	25.7	26.0	24.8	24.2	30.5	32.9	33.5	31.3	28.7
Miami	23.1	23.6	23.8	23.6	23.1	24.6	26.9	27.0	25.9	24.6
Philadelphia	24.0	26.6	26.2	24.4	24.7	29.9	31.3	33.2	32.2	30.7
San Diego	21.8	22.8	21.9	22.0	20.5	24.5	25.7	25.5	25.9	22.0
Houston	21.8	22.3	22.1	20.2	19.2	25.9	28.3	27.0	24.9	23.6
Phoenix	26.5	25.9	24.0	21.5	20.3	27.5	28.4	28.3	25.0	24.3
Dallas	18.7	19.7	18.8	18.5	18.0	24.5	26.8	24.3	23.7	22.5
Las Vegas	24.5	26.0	26.5	23.8	22.4	27.5	29.1	29.1	26.9	25.5
Seattle	24.6	26.0	24.1	21.4	19.6	31.4	32.3	32.7	30.0	26.7
Denver	24.0	25.1	23.9	22.3	20.3	30.7	33.0	34.3	30.5	29.9
Portland	23.9	25.5	25.0	25.2	22.9	29.7	32.9	30.7	31.0	27.2
Cleveland	18.8	19.4	19.1	19.6	18.2	23.4	25.3	25.6	24.7	22.6
Detroit	16.8	19.5	18.3	17.5	17.8	20.5	23.2	22.7	22.2	19.6
Sacramento	25.5	26.7	26.4	24.5	24.2	28.4	32.8	32.4	31.2	27.5
Minneapolis	24.1	28.6	26.5	25.6	24.4	30.3	32.5	33.8	32.4	31.1
Milwaukee	22.9	23.5	22.6	20.7	18.3	29.9	31.3	30.5	26.6	23.7
Pittsburgh	20.7	20.4	20.9	22.0	21.9	26.5	27.5	29.3	28.8	25.6
Honolulu	23.1	27.4	26.8	22.5	25.1	21.3	27.1	29.7	26.2	22.4
Salt Lake City	26.2	26.1	27.5	23.9	24.2	31.0	32.7	30.3	28.1	27.0
San Antonio	22.1	24.0	23.6	22.3	22.8	25.9	29.5	26.2	26.5	27.3
Buffalo	13.2	11.7	11.1	15.2	15.9	12.9	14.8	15.5	20.1	18.0
Columbus	19.4	21.2	20.0	19.4	19.9	24.8	25.6	28.0	26.8	23.9
St. Louis	25.1	25.0	25.8	27.1	27.2	28.9	27.7	31.1	31.1	29.1
New Orleans	18.8	16.0	24.1	17.4	25.7	18.3	17.9	24.6	20.1	15.4
Albany	17.9	15.7	14.9	19.2	18.9	21.9	22.7	26.0	28.8	23.0
Cincinnati	23.8	22.3	23.1	23.7	21.3	28.3	28.2	27.6	28.1	24.3
Fresno	18.7	20.8	23.6	22.2	21.2	22.0	22.6	23.1	24.0	22.3
Atlanta	17.9	17.2	17.3	16.5	16.4	22.2	25.0	23.6	23.2	22.9

Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Green/red shading indicates value is higher/lower than the prepandemic average. Darker shading indicates the percentage is more than 2 percentage points different from the prepandemic mean. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.

Table A5: Share of Urban Migrants Arriving in or Leaving a Majority-White Neighborhood

	In-migrants					Outmigrants				
Metro Area	2017-19	2020	2021	2022	2023	2017-19	2020	2021	2022	2023
All Metro Areas	57.5	56.2	56.3	56.0	55.9	54.7	54.7	53.5	53.3	53.0
New York	59.2	56.2	56.7	56.5	55.9	59.1	59.2	57.3	57.6	57.3
Los Angeles	44.1	43.4	43.1	42.4	42.0	42.6	42.6	41.3	40.6	41.2
San Francisco-San Jose	45.0	43.9	44.1	44.0	44.9	46.1	45.9	44.1	45.7	45.1
Chicago	63.6	61.1	61.5	62.2	61.6	57.4	56.0	54.8	55.7	55.2
Boston	81.7	80.5	80.0	79.3	79.4	76.6	75.9	76.2	74.9	74.1
Washington-Baltimore	54.9	55.2	55.8	55.7	55.4	49.2	50.3	49.3	49.7	49.1
Miami	35.4	35.2	37.0	35.2	35.2	38.1	37.9	38.6	39.1	38.2
Philadelphia	61.6	59.4	59.4	58.6	57.5	59.1	57.2	55.8	54.9	54.8
San Diego	60.6	58.7	60.6	58.5	59.1	56.2	56.2	55.0	54.6	55.4
Houston	46.5	44.6	43.9	45.0	45.0	41.7	42.5	40.9	40.6	39.5
Phoenix	67.9	66.6	61.1	60.8	62.5	58.7	59.1	56.3	57.7	56.1
Dallas	47.0	46.3	46.7	46.4	48.4	45.1	45.3	44.5	43.7	44.8
Las Vegas	56.9	56.3	56.3	56.4	55.9	53.8	51.4	51.4	51.4	51.5
Seattle	75.6	75.6	76.2	76.2	77.4	68.6	70.7	68.7	68.7	68.9
Denver	77.8	77.0	76.9	76.9	76.3	72.8	73.2	72.1	71.1	71.3
Portland	94.0	93.4	94.2	92.9	93.7	85.6	85.4	84.7	83.1	85.1
Cleveland	70.6	70.0	70.3	68.9	69.4	67.7	65.8	67.7	65.2	67.3
Detroit	41.8	41.0	39.7	39.0	39.8	50.1	49.1	48.0	45.6	43.2
Sacramento	49.9	48.5	48.3	49.1	51.4	49.1	48.4	47.5	49.8	47.5
Minneapolis	74.3	74.3	73.6	74.1	72.5	67.8	69.2	68.8	68.1	65.1
Milwaukee	71.9	67.6	66.6	65.4	66.9	68.5	66.4	61.6	60.6	65.3
Pittsburgh	88.7	85.9	87.3	87.0	88.0	82.8	82.3	81.3	82.3	82.3
Honolulu	26.1	29.4	25.6	25.4	26.4	58.2	55.9	60.6	60.9	56.7
Salt Lake City	91.5	89.9	89.8	88.7	88.7	84.5	83.2	81.7	81.6	79.9
San Antonio	20.7	20.1	18.5	18.1	19.8	27.7	29.7	27.5	30.1	27.8
Buffalo	53.7	51.8	50.7	50.2	54.0	49.9	53.3	53.0	45.2	49.5
Columbus	75.0	73.6	72.4	71.9	74.4	70.1	69.5	67.6	67.2	68.5
St. Louis	76.5	73.8	75.6	73.1	74.9	70.3	66.9	69.9	68.7	69.3
New Orleans	64.1	57.6	60.5	58.7	60.3	57.4	51.5	56.9	56.8	58.6
Albany	54.9	52.8	56.5	55.2	56.1	52.7	53.0	52.0	47.2	53.3
Cincinnati	84.7	83.5	82.6	82.3	83.5	79.2	77.8	75.3	75.4	76.8
Fresno	33.1	35.8	39.4	32.3	31.8	38.2	36.6	43.2	32.6	35.2
Atlanta	42.9	42.9	40.5	45.7	43.9	40.6	41.0	39.4	39.1	40.7

Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Green/red shading indicates value is higher/lower than the prepandemic average. Darker shading indicates the share of migrants was more than 5 percentage points different from the 2017–2019 median. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.

Table A6: Share of Urban Migrants Arriving in or Leaving a Majority-Hispanic Neighborhood

	In-migrants					Outmigrants				
Metro Area	2017-19	2020	2021	2022	2023	2017-19	2020	2021	2022	2023
All Metro Areas	18.9	19.9	19.4	19.7	19.8	20.6	20.5	21.1	21.1	21.6
New York	15.1	16.7	16.1	16.0	16.3	16.7	16.4	17.1	17.2	17.4
Los Angeles	36.4	37.3	36.9	37.7	38.1	37.8	37.2	39.2	38.9	38.8
San Francisco-San Jose	12.5	12.5	11.9	12.5	12.4	14.0	13.5	13.8	13.7	14.7
Chicago	15.4	15.9	15.6	15.7	15.8	19.1	19.8	20.1	19.1	20.5
Boston	6.8	7.6	7.3	8.0	7.9	8.7	8.6	8.8	9.5	10.0
Washington-Baltimore	6.2	6.2	6.1	5.9	6.3	9.2	8.7	9.1	8.7	9.5
Miami	44.5	44.8	42.8	43.6	43.9	41.2	41.4	39.5	39.5	39.9
Philadelphia	6.9	8.7	7.6	7.9	8.4	9.9	10.5	10.5	11.0	11.1
San Diego	25.9	27.5	25.4	27.3	27.8	27.3	27.1	26.9	28.4	27.6
Houston	30.7	31.5	31.1	30.8	31.7	33.3	31.9	32.6	33.4	33.5
Phoenix	26.5	27.9	32.9	33.8	31.9	30.1	30.5	32.9	30.9	33.1
Dallas	23.4	23.0	23.5	23.5	22.7	24.6	25.2	25.4	25.1	24.9
Las Vegas	18.8	19.5	18.8	19.7	19.8	21.8	22.9	23.5	23.2	23.8
Seattle	1.5	1.6	1.7	1.7	1.7	5.1	4.2	4.9	5.3	5.8
Denver	15.3	15.6	15.7	16.1	16.0	17.3	16.0	17.9	17.6	18.4
Portland	3.3	4.1	3.6	3.8	4.1	6.5	7.1	7.1	7.3	7.0
Cleveland	1.7	2.2	2.4	1.7	1.7	3.3	4.3	4.0	3.8	3.1
Detroit	2.8	3.3	3.4	3.5	3.2	5.2	5.7	5.7	5.4	7.9
Sacramento	6.3	6.6	7.2	7.3	6.1	9.8	10.4	10.2	9.4	9.4
Minneapolis	0.7	0.8	0.9	1.1	1.0	2.9	2.9	2.9	3.4	2.9
Milwaukee	6.8	7.1	7.4	8.9	7.3	8.6	9.6	11.6	10.2	10.4
Pittsburgh	0.6	1.2	0.8	1.0	0.8	2.4	2.9	2.7	2.7	3.2
Honolulu	6.5	5.4	3.2	5.5	5.0	17.8	16.1	13.9	19.4	14.6
Salt Lake City	3.7	3.9	4.0	4.4	4.8	7.4	7.2	8.1	8.5	9.0
San Antonio	78.2	79.2	80.2	80.4	79.5	64.7	62.5	63.7	60.8	64.1
Buffalo	10.3	9.6	10.1	8.1	8.0	15.0	11.5	11.2	15.1	15.5
Columbus	0.6	0.6	1.3	1.1	0.6	2.9	3.4	4.0	4.1	4.1
St. Louis	0.7	1.2	0.4	1.2	1.0	3.6	4.9	3.8	4.9	4.0
New Orleans	4.3	8.9	6.3	4.2	4.5	15.7	18.7	19.4	18.5	18.9
Albany	13.3	12.5	8.2	12.3	7.1	15.8	15.4	13.2	16.6	12.4
Cincinnati	0.4	0.8	0.5	0.8	0.9	3.1	3.3	3.9	4.1	4.2
Fresno	47.6	42.5	49.6	48.5	43.5	27.2	25.8	29.5	31.6	30.6
Atlanta	10.1	10.9	9.6	8.0	9.0	14.6	14.0	15.0	14.9	14.4

Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Green/red shading indicates value is higher/ lower than the prepandemic average. Darker shading indicates the share of migrants was more than 4 percentage points different from the 2017-2019 median. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.

Table A7: Share of Urban Migrants Arriving in or Leaving a Majority-Black Neighborhood

	In-migrants					Outmigrants				
Metro Area	2017-19	2020	2021	2022	2023	2017-19	2020	2021	2022	2023
All Metro Areas	7.8	8.3	8.4	8.6	8.8	8.4	8.5	8.9	9.1	9.2
New York	10.1	10.6	11.2	10.7	11.3	8.4	8.6	9.7	8.7	9.0
Los Angeles	1.6	1.5	1.7	1.6	1.7	1.7	1.8	1.8	2.0	1.8
San Francisco-San Jose	0.9	1.0	0.9	0.8	1.1	1.2	1.2	1.1	1.3	1.5
Chicago	12.7	14.7	14.4	13.5	14.2	13.8	14.9	15.6	15.4	14.9
Boston	3.8	4.2	4.6	4.2	4.3	5.1	5.7	5.9	5.7	5.1
Washington-Baltimore	18.7	19.1	18.4	19.3	19.8	20.6	20.6	21.2	20.9	21.3
Miami	15.8	15.8	15.5	16.6	16.3	14.5	14.7	15.0	14.8	15.2
Philadelphia	19.5	20.3	20.1	21.0	21.0	17.6	18.5	19.3	20.6	20.1
San Diego	0.5	0.4	0.6	0.6	0.6	1.1	1.0	1.3	1.0	1.3
Houston	7.1	7.5	7.4	8.1	7.2	7.9	8.0	8.4	8.5	9.3
Phoenix	0.6	0.5	0.8	0.6	0.8	2.0	1.9	2.0	1.8	2.3
Dallas	4.9	6.1	5.6	5.8	4.3	6.0	5.4	5.6	6.8	6.2
Las Vegas	1.0	1.3	1.2	1.2	1.6	2.0	2.3	2.3	2.0	2.4
Seattle	0.5	0.6	0.7	0.6	0.3	1.3	1.3	1.4	1.7	1.3
Denver	0.4	0.5	0.4	0.5	0.5	1.2	1.1	1.1	1.3	1.1
Portland	0.3	0.4	0.1	0.3	0.2	0.9	0.8	0.8	0.8	0.7
Cleveland	23.0	23.3	23.3	24.5	24.6	22.5	22.8	22.8	24.1	23.2
Detroit	44.0	45.8	46.2	46.1	46.1	32.1	32.5	32.6	35.1	34.0
Sacramento	0.4	0.3	0.4	0.4	0.3	1.0	0.7	0.9	1.0	0.8
Minneapolis	5.1	4.2	5.7	5.2	5.8	6.6	6.0	6.1	6.5	7.6
Milwaukee	17.6	19.2	21.0	21.2	22.9	17.7	18.7	21.0	23.3	18.9
Pittsburgh	6.9	9.0	8.2	7.7	8.0	9.3	8.2	9.9	9.3	8.7
Honolulu	1.2	0.7	1.3	0.8	2.1	3.6	3.0	4.1	2.8	6.7
Salt Lake City	0.2	0.2	0.2	0.2	0.4	0.5	0.9	0.9	1.1	1.2
San Antonio	0.4	0.2	0.5	0.2	0.1	2.2	1.7	2.5	2.1	2.2
Buffalo	19.8	20.3	19.8	25.1	21.6	13.1	11.5	9.5	16.6	14.9
Columbus	19.1	19.1	19.1	19.6	18.8	18.6	18.2	19.6	20.1	19.6
St. Louis	16.5	17.1	17.4	19.2	17.5	17.5	17.9	16.7	18.1	17.5
New Orleans	20.7	26.0	22.1	26.6	27.9	9.4	11.1	9.3	10.4	7.7
Albany	12.0	19.0	18.0	12.6	16.3	12.9	15.4	15.7	13.0	14.4
Cincinnati	12.1	13.1	14.4	14.2	13.4	11.4	13.3	13.2	14.7	12.1
Fresno	0.3	2.8	0.0	2.0	2.4	1.7	1.7	1.3	3.1	2.6
Atlanta	18.2	17.6	19.5	19.6	19.2	22.5	21.8	23.3	22.8	22.9

Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Green/red shading indicates value is higher/lower than the prepandemic average. Darker shading indicates the share of migrants was more than 3 percentage points different from the 2017-2019 median. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.

Table A8: Share of Urban Migrants Arriving in or Leaving an Integrated (No Racial or Ethnic Majority) Neighborhood

	In-migrants					Outmigrants				
Metro Area	2017-19	2020	2021	2022	2023	2017-19	2020	2021	2022	2023
All Metro Areas	15.7	15.7	15.9	15.8	15.5	16.3	16.3	16.5	16.5	16.2
New York	15.7	16.5	16.0	16.8	16.5	15.8	15.8	15.9	16.6	16.3
Los Angeles	17.9	17.7	18.2	18.2	18.2	17.9	18.3	17.7	18.5	18.2
San Francisco-San Jose	41.6	42.6	43.1	42.7	41.6	38.6	39.3	41.0	39.3	38.7
Chicago	8.3	8.2	8.5	8.6	8.5	9.6	9.3	9.5	9.9	9.4
Boston	7.7	7.8	8.2	8.5	8.4	9.6	9.7	9.0	9.9	10.8
Washington-Baltimore	20.1	19.6	19.7	19.1	18.5	20.9	20.4	20.3	20.7	20.1
Miami	4.3	4.2	4.7	4.6	4.6	6.2	5.9	7.0	6.6	6.7
Philadelphia	12.0	11.7	12.9	12.4	13.1	13.5	13.8	14.4	13.5	13.9
San Diego	12.9	13.5	13.4	13.7	12.6	15.3	15.8	16.8	16.0	15.7
Houston	15.8	16.4	17.6	16.2	16.1	17.2	17.6	18.1	17.6	17.6
Phoenix	5.1	5.0	5.2	4.9	4.8	9.1	8.5	8.8	9.6	8.5
Dallas	24.7	24.6	24.2	24.3	24.6	24.3	24.1	24.5	24.4	24.1
Las Vegas	23.2	22.9	23.7	22.7	22.7	22.4	23.3	22.8	23.5	22.2
Seattle	22.5	20.8	21.4	21.3	20.5	25.0	23.8	24.9	24.3	24.0
Denver	6.4	6.9	7.1	6.5	7.2	8.8	9.7	8.9	10.0	9.2
Portland	2.4	2.1	2.0	3.0	2.0	7.0	6.6	7.4	8.7	7.2
Cleveland	4.6	4.5	4.0	4.9	4.3	6.6	7.1	5.5	6.8	6.5
Detroit	11.4	10.0	10.8	11.4	10.8	12.5	12.7	13.7	13.9	14.8
Sacramento	43.5	44.6	44.1	43.1	42.2	40.1	40.6	41.3	39.8	42.3
Minneapolis	20.0	20.8	19.8	19.6	20.7	22.7	21.9	22.2	22.0	24.5
Milwaukee	3.6	6.1	5.0	4.5	2.9	5.1	5.3	5.9	5.9	5.4
Pittsburgh	3.8	3.9	3.6	4.3	3.3	5.4	6.7	6.2	5.7	5.8
Honolulu	66.2	64.5	70.0	68.4	66.5	20.4	24.9	21.5	16.8	22.0
Salt Lake City	4.6	6.0	6.0	6.6	6.1	7.6	8.7	9.2	8.7	9.8
San Antonio	0.8	0.5	0.7	1.2	0.6	5.5	6.1	6.3	7.1	5.9
Buffalo	16.2	18.3	19.3	16.6	16.5	22.0	23.7	26.3	23.2	20.1
Columbus	5.3	6.7	7.2	7.4	6.2	8.4	8.8	8.8	8.7	7.8
St. Louis	6.3	7.9	6.6	6.4	6.5	8.5	10.3	9.6	8.3	9.2
New Orleans	10.9	7.4	11.1	10.4	7.3	17.5	18.7	14.5	14.3	14.8
Albany	19.9	15.7	17.3	19.9	20.4	18.5	16.3	19.1	23.1	19.9
Cincinnati	2.8	2.6	2.5	2.7	2.2	6.3	5.6	7.6	5.8	6.9
Fresno	19.0	18.9	11.0	17.2	22.4	32.9	35.9	26.0	32.6	31.6
Atlanta	28.7	28.6	30.4	26.8	27.9	22.3	23.2	22.4	23.2	22.0

Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Green/red shading indicates value is higher/lower than the prepandemic average. Darker shading indicates the share of migrants was more than 3 percentage points different from the 2017-2019 average. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.

Table A9: Graph Values, Figures 1 through 5. Net Migration (In-migrants−Outmigrants) for Urban Neighborhoods

Age Group	2017-2019 mean	2020	2021	2022	2023
20-29	125	-5	46	74	78
30-39	-199	-309	-324	-273	-212
40-49	-118	-170	-194	-162	-145
50-59	-55	-92	-107	-88	-79
60-69	-53	-71	-83	-73	-59
70-79	-21	-32	-36	-31	-27

Equifax Risk Score Decile	2017-2019 mean	2020	2021	2022	2023
1	-26	-48	-49	-46	-39
2	-44	-68	-73	-69	-66
3	-41	-75	-82	-66	-55
4	-22	-61	-53	-40	-34
5	-13	-72	-54	-42	-29
6	-25	-78	-86	-57	-49
7	-47	-93	-109	-73	-60
8	-52	-81	-90	-71	-51
9	-36	-62	-64	-61	-46
10	-21	-49	-51	-36	-27

Tract Median Income Decile	2017-2019 mean	2020	2021	2022	2023
1	-68	-108	-115	-101	-95
2	-49	-69	-86	-73	-58
3	-42	-65	-79	-57	-58
4	-37	-62	-62	-57	-42
5	-32	-61	-64	-50	-43
6	-31	-55	-58	-50	-39
7	-28	-57	-60	-50	-36
8	-21	-57	-58	-45	-35
9	-18	-72	-56	-44	-26
10	-1	-83	-72	-35	-23

Homeownership	2017-2019 mean	2020	2021	2022	2023
Renter	-91	-319	-304	-229	-205
Homeowner	-237	-368	-406	-332	-251

Neighborhood Ethnic/Racial Majority	2017-2019 mean	2020	2021	2022	2023
White	-75	-324	-277	-211	-146
Hispanic	-131	-164	-210	-167	-157
Black	-50	-68	-86	-69	-57
None	-72	-131	-138	-113	-95

The units are thousands of net migrants. Estimates for 2023 are projected from Q1, Q2, and Q3 2023 observations. Sources: Federal Reserve Bank of New York/Equifax Consumer Credit Panel, US Census Bureau, and author's calculations.