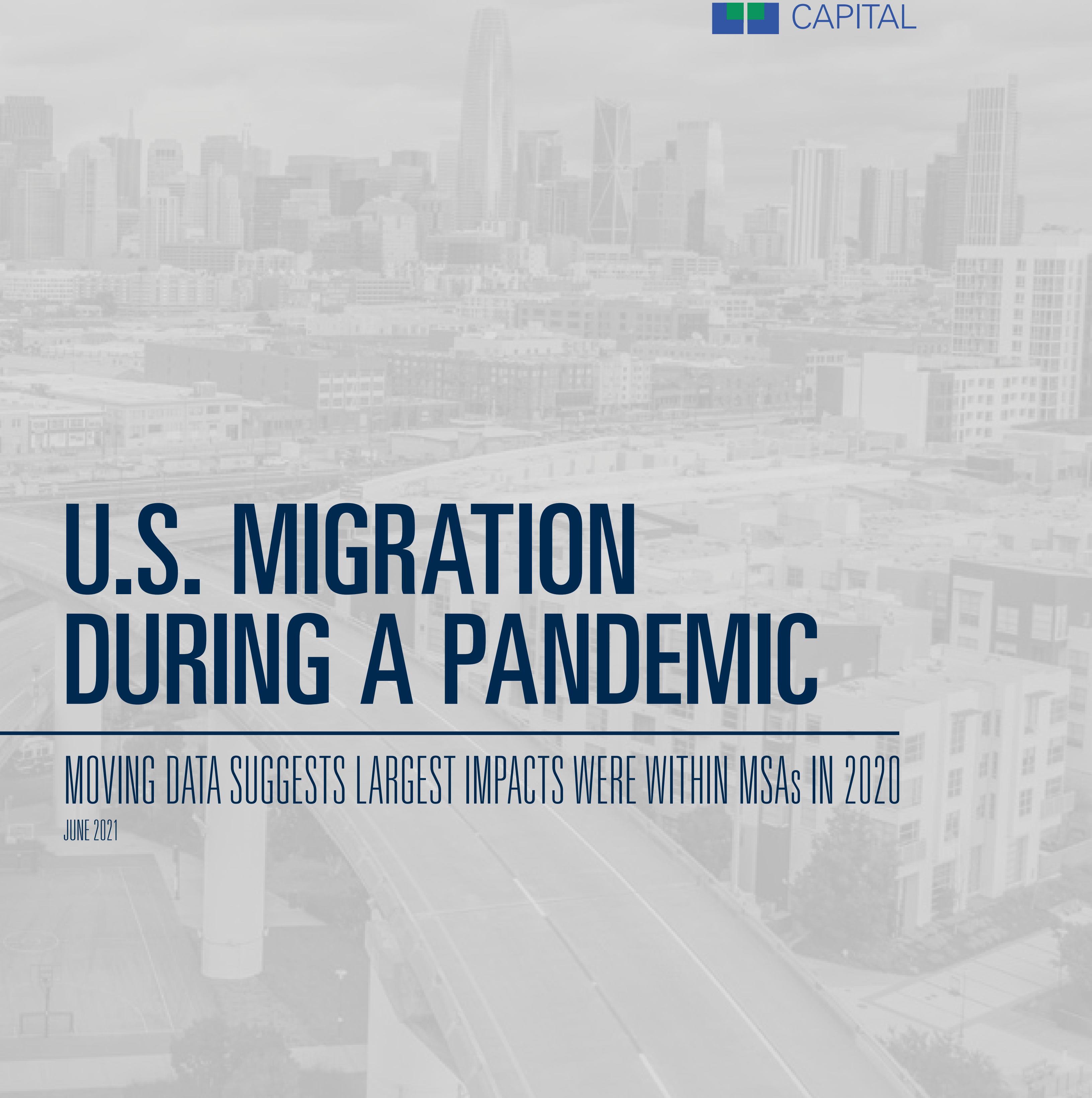
USAA REAL ESTATE

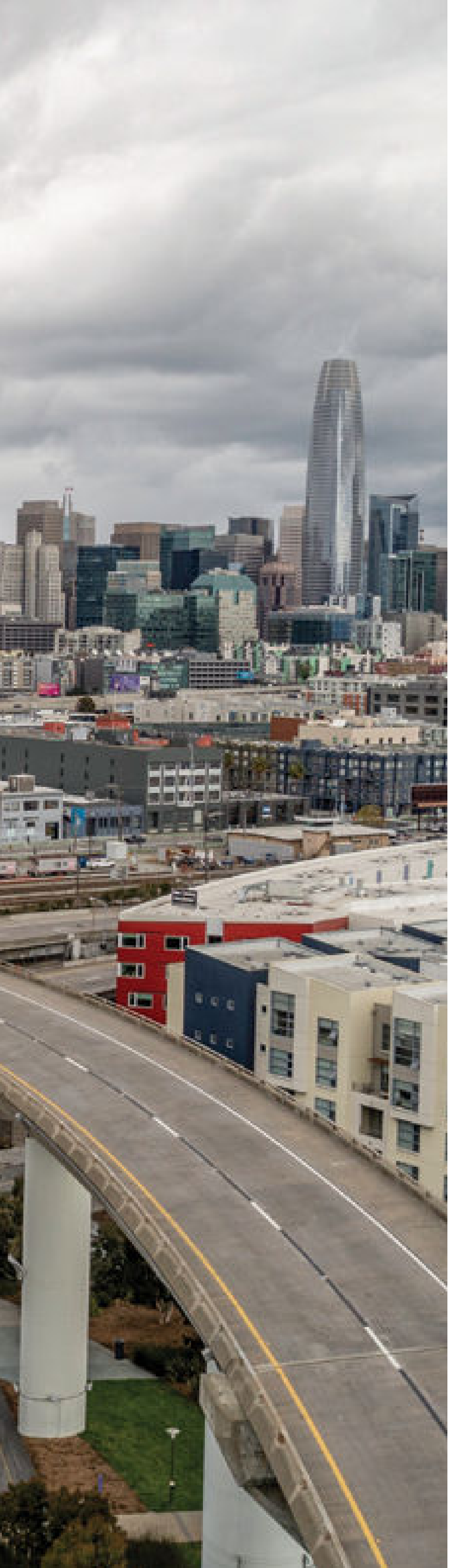
SQUARE MILE CAPITAL



U.S. MIGRATION DURING A PANDEMIC

MOVING DATA SUGGESTS LARGEST IMPACTS WERE WITHIN MSAs IN 2020

JUNE 2021



Executive Summary

The COVID-19 pandemic threw the economy for a loop in 2020. The health situation forced lifestyle adjustments on many, as our daily destinations for work and play were closed, or imposed limited capacity requirements. As a result, urban lifestyles became temporarily less attractive, and this was reflected in living preferences of Americans. This paper addresses these themes, though some of the findings may surprise readers:

- Trends within U.S. markets saw substantial shifts, as **urban/central business district (CBD) areas experienced large increases in net outmigration, benefiting the suburbs.** Coastal urban areas in particular felt some pain as residents didn't need to live near closed offices and/or cultural attractions. Suburban demand is reflected not only in multifamily rent trends, but also in a robust housing market, with home prices up 12% YoY according to the S&P CoreLogic Case-Shiller index.[1]
- **Despite intra-market shifts, migration activity across markets was relatively flat in 2020 compared to prior years**, and net migration trends for most major U.S. markets were remarkably consistent with the two years prior.
- **Q1 2021 migration activity showed a continuation of 2020 trends, though less pronounced.** We expect that these trends will revert to pre-pandemic levels, or even reverse in the latter part of 2021 as vaccination rates rise and the economy continues to reopen.

1. As of February 2021.

Migration Trends

Domestic migration activity has frequently made headlines since the start of the pandemic and is of particular interest to real estate investors. As we've written about previously,[2] migration activity has historically shown high correlation with real estate performance (particularly net absorption for multifamily and office), so shifting trends could have significant implications for investors. A primary factor driving this trend during the pandemic was work-from-home (WFH), as offices were largely closed, as were the amenities (nightlife/culture) that draw people to downtown areas. A question on the minds of many is how much traction WFH will gain in a post-pandemic environment. This remains to be seen, although a recent PwC survey found that 87% of employees believe the office is important for collaborating with team members and building relationships, and just 5% of executives felt culture could be maintained without a physical office space.[3]

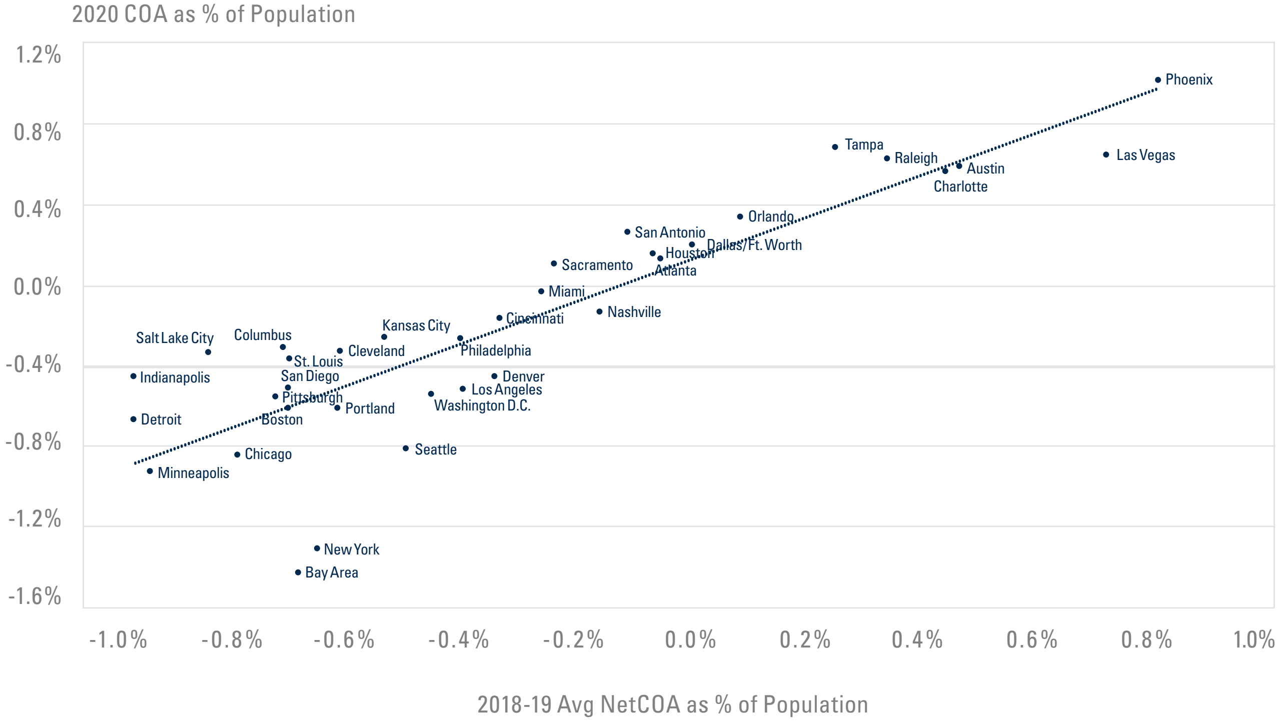
A second, and overlapping, factor is the aging of the millennials; the oldest millennials are turning 41 in 2021, and 54% are over the age of 32. As this cohort ages, gets married, starts families, and reaches its peak spending years, they were already going to provide a tailwind for urban nodes and close-in suburban locations. The pandemic may have accelerated this trend, though Generation Z contains a fair amount of pent-up demand to fill urban vacancies as the health situation improves.

To assess the potential impact of these trends, we first need to quantify the magnitude of the changes that took place in 2020. For this analysis, we used change-of-address (COA) requests filed with the U.S. Postal Service. There were 32.9 million residential COA filings in 2020. We find this to be remarkably similar to the average of 32.8 million COA filings for the previous two years, given the substantial lifestyle changes we experienced last year.[4] COA data was analyzed on a monthly basis, down to the zip code level.

At the market level, migration activity was surprisingly stable as well. **Exhibit 1** shows the top 35 markets and how migration activity changed in 2020 compared to the previous two years. **As demonstrated in the chart, most markets stayed remarkably close to pre-pandemic trends.** The two clear outliers, the Bay Area and New York, saw substantial increases in net outmigration, with both approximately doubling pre-pandemic averages. However, even a doubling hardly reflects a mass exodus. It is also important to note what this dataset does not capture: moves without a USPS COA filing. This category generally includes young college graduates (who often don't have bills/mail they need to forward) and international in-migration. Many of these markets in the bottom-left quadrant benefit from this activity and closed borders in 2020 effectively eliminated international in-migration. New York and the Bay Area alone combine for ~300,000 international in-migrants in an average year,[5] and will likely benefit from pent-up demand once international travel restrictions are eased.

2. US Migration Trends: Will Increased SALT Intake in Major Markets be Unhealthy for Real Estate Portfolios?; https://www.usrealco.com/insights/u-s-migration-trends-will-increased-salt-intake-in-major-markets-be-unhealthy-for-real-estate-portfolios/
3. https://www.pwc.com/us/en/library/covid-19/us-remote-work-survey.html
4. 33.3 million in 2018, 32.4 million in 2019.
5. Average from 2014-2017, this data is reported on a lag.

EXHIBIT 1: Market Net Migration as Percent of Population, 2020 vs. 2018/19[6]



Source: U.S. Postal Service, USAA Real Estate Research

As demonstrated in the chart, most markets stayed remarkably close to pre-pandemic trends.

6. Note that COA as a percent of population is not a perfectly matched ratio – COA filings could count a single person, or a large family. However, it should serve as a reasonable proxy of migration activity.

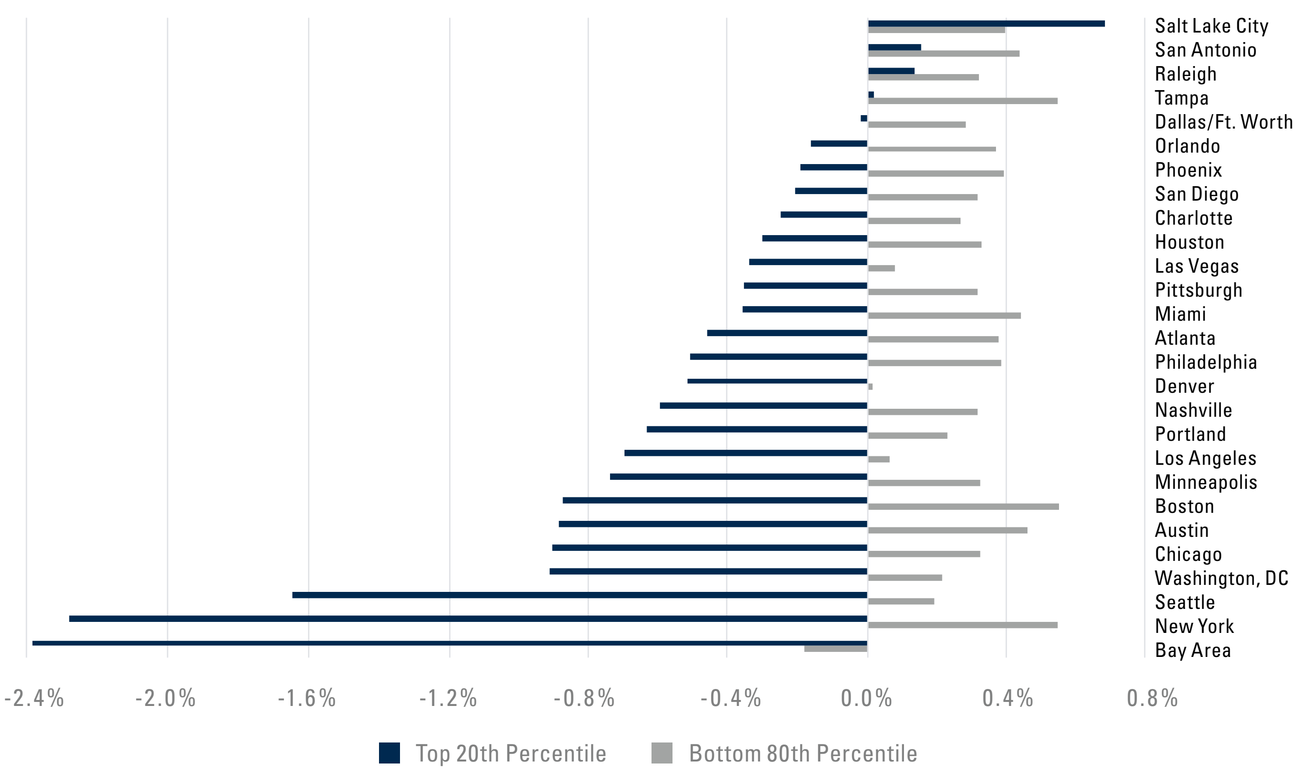
While migration trends across markets showed relative stability in 2020, **there were more substantive shifts within markets**. Urban flight increased in many markets, while suburban areas flourished. One mechanism we used to break down density effects was to group zip codes within a market by density deciles.[7] In many markets, we see substantial bifurcation in the performance of the top density deciles compared to the rest of the market. **Exhibit 2** shows this trend:

The chart shows the change in 2020 trends versus the prior two years. So, for example, the top 20th percentile zip codes in New York saw a 2.3% increase in net outmigration as a percent of population in those areas (from -1.0% in 2018-19 to -3.3% in 2020), whereas the remaining 80% of zip codes saw a 0.5% decrease in net outmigration (change in net migration from -0.2% in 2018-19 to 0.3% in 2020).

The Bay Area was the only major market where the suburban areas saw increased net outmigration in 2020.

Even markets where net outmigration was relatively flat in 2020, such as Boston and Austin, saw substantial shifts in migration trends based on density within the market. Note that the two bars in **Exhibit 2** are not necessarily additive, as they are based on the population in each area. For example, in NY 44% of the market population lives in top 20th percentile zip codes, whereas in Austin it is just 25%.

EXHIBIT 2: Change in Net Migration as Percent of Population, 2020 vs. 2018/19



Source: U.S. Postal Service, USAA Real Estate Research

7. Deciles are groups of 10%. So, break out all zip codes in a market, and the top 10% would be the 90-100th percentile, the next 10% would be the 80-90th percentile, and so on.

Recently released trends for the first quarter of 2021 showed a continuation of 2020 trends, though less pronounced (see **Exhibit 3**).

- The Bay Area and NY saw a reduced pace of overall net outmigration, as well as reduced outmigration from urban zip codes, though levels remain well above 2018/19.
- Seattle saw a significant decline in net outmigration from urban areas, though overall outmigration from the market was up slightly.
- Austin saw accelerated in-migration.

EXHIBIT 3: Net Outmigration Trends Showed Some Reversion in Q1 2021

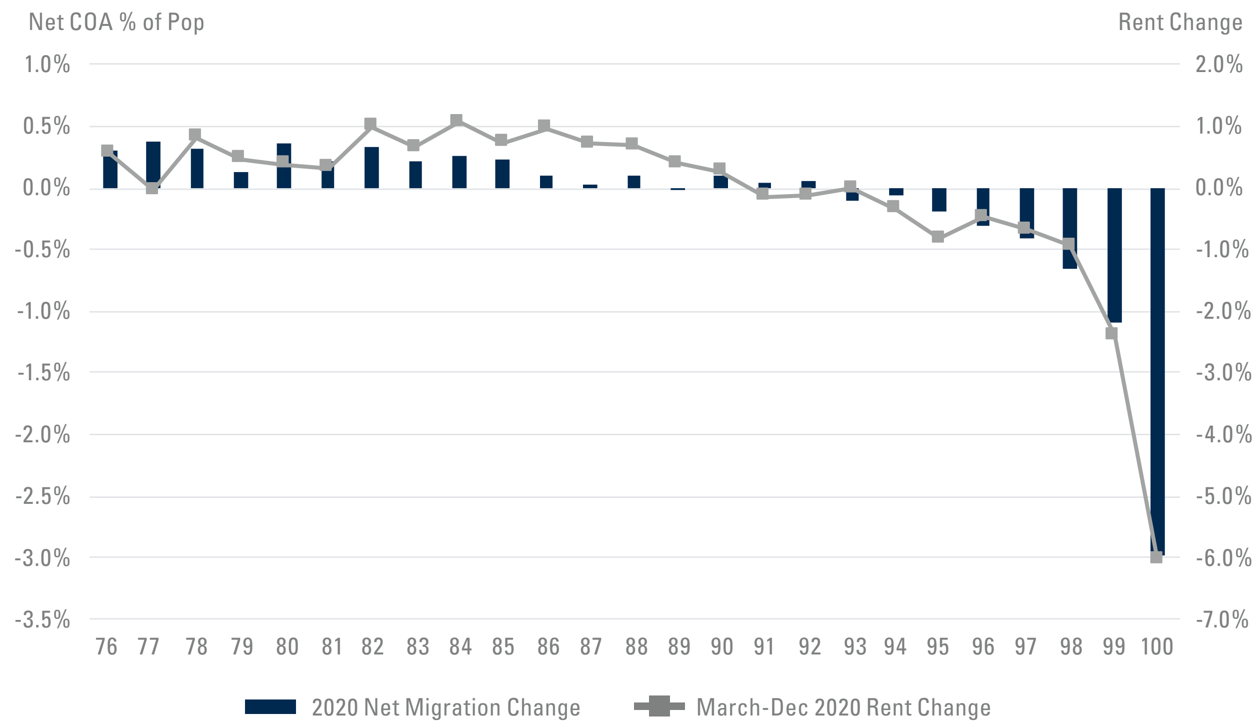
Net Outmigration by Market	Top 20th Percentile			Total Market		
	2018-19	2020	2021 Q1 Pace	2018-19	2020	2021 Q1 Pace
Bay Area	-1.7%	-4.1%	-3.2%	-0.6%	-1.4%	-1.3%
New York	-1.1%	-3.4%	-2.2%	-0.6%	-1.3%	-1.1%
Seattle	-0.9%	-2.6%	-2.0%	-0.5%	-0.8%	-0.9%
Washington, DC	-1.5%	-2.4%	-1.9%	-0.4%	-0.5%	-0.6%
Chicago	-1.1%	-2.0%	-1.7%	-0.7%	-0.8%	-0.9%
Austin	-2.4%	-3.3%	-2.3%	0.5%	0.6%	0.8%
Boston	-1.8%	-2.6%	-2.0%	-0.7%	-0.6%	-0.9%
Minneapolis	-2.1%	-2.8%	-2.4%	-0.9%	-0.9%	-1.1%
Los Angeles	-1.1%	-1.8%	-1.8%	-0.4%	-0.5%	-0.6%
Portland	-1.2%	-1.9%	-1.5%	-0.6%	-0.6%	-0.8%
Nashville	-1.6%	-2.2%	-1.9%	-0.1%	-0.1%	0.1%
Denver	-1.5%	-2.0%	-1.8%	-0.3%	-0.5%	-0.8%
Philadelphia	-1.1%	-1.6%	-1.4%	-0.4%	-0.3%	-0.4%
Atlanta	-1.3%	-1.7%	-1.3%	0.0%	0.1%	0.2%
Miami	-1.1%	-1.4%	-1.1%	-0.2%	0.0%	0.7%

Source: U.S. Postal Service, USAA Real Estate Research

Real Estate Fundamentals

The knock-on effects of migration activity on real estate fundamentals are substantial, as demonstrated in our previous research. To quantify the extent to which this relationship held in 2020, we analyzed multifamily effective rent trends, where the metrics are generally available in real time given the shorter lease terms, and housing demand can be directly linked to change-of-address. No surprise, we find a strong relationship between the change in net COA filings and multifamily rents. From a density perspective, **this trend is prevalent even at the percentile level.** We focus here on the 75th percentile areas of the country and up, which hold most of the institutional multifamily inventory. The correlation between these two measures in 2020 was nearly perfect, at 0.97, as shown in **Exhibit 4**.

EXHIBIT 4: Change in Net Migration as Percent of Population, 2020 vs. 2018/19 vs. Rent Change, March-December 2020[8]



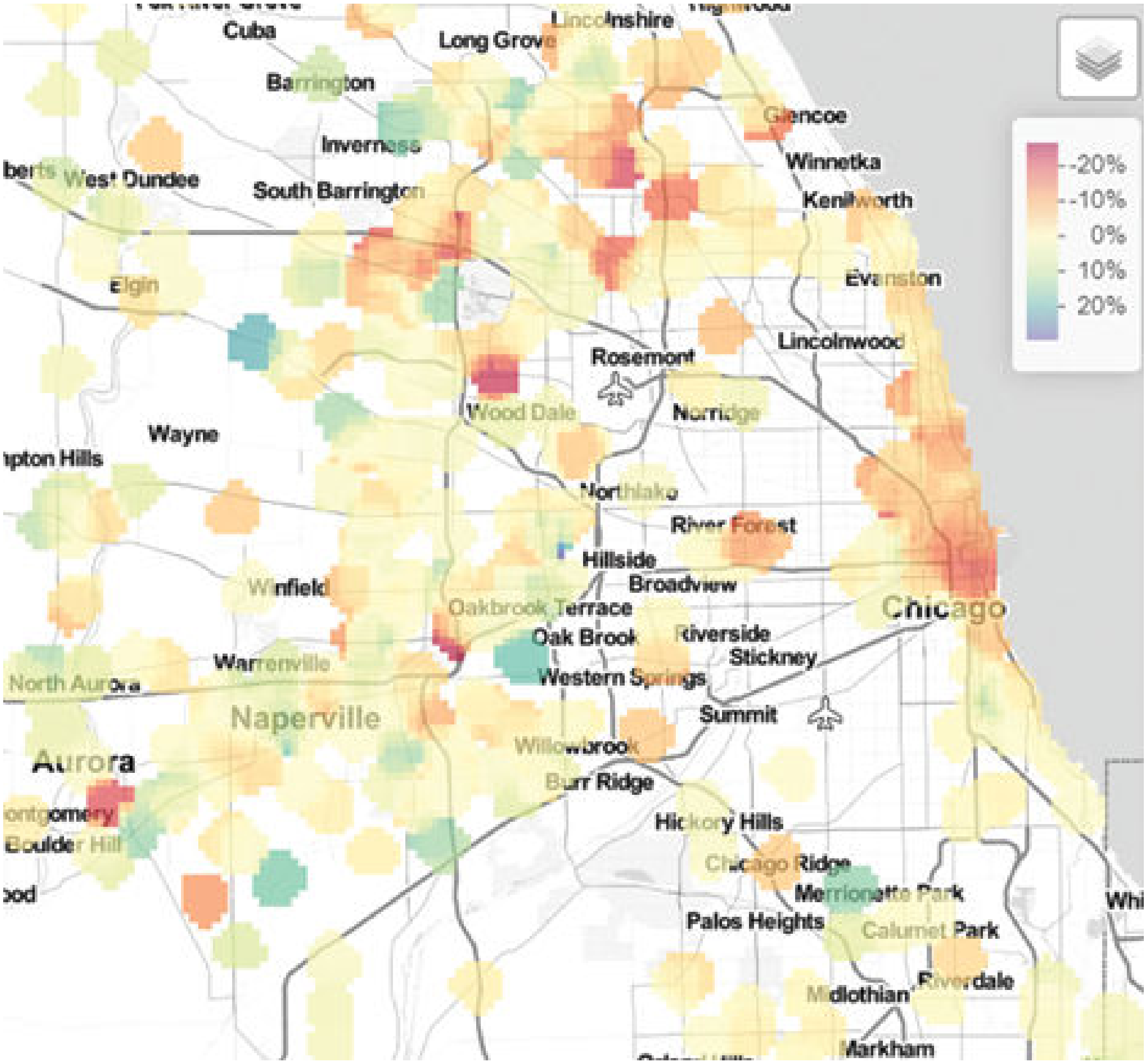
Source: U.S. Postal Service, RealPage/Axiometrics, USAA Real Estate Research

8. Note that migration ranking includes top 85 markets, while rent change only includes top 28 markets.


H&M
MARRIOTT MARQUIS
COME FROM AWAY
LEVI STRAUSS & CO.
Levi's

Exhibit 5 shows a heatmap of multifamily rent change in a 1-mile radius around each grid cell for Chicago since March 2020, which clearly shows outperformance in the suburbs relative to the CBD. The heatmaps show similar characteristics in many major markets, aligning with the urban/suburban divides shown in **Exhibit 2**.

EXHIBIT 5: 12-Month Rent Change Since March 2020, 1-Mile Radius

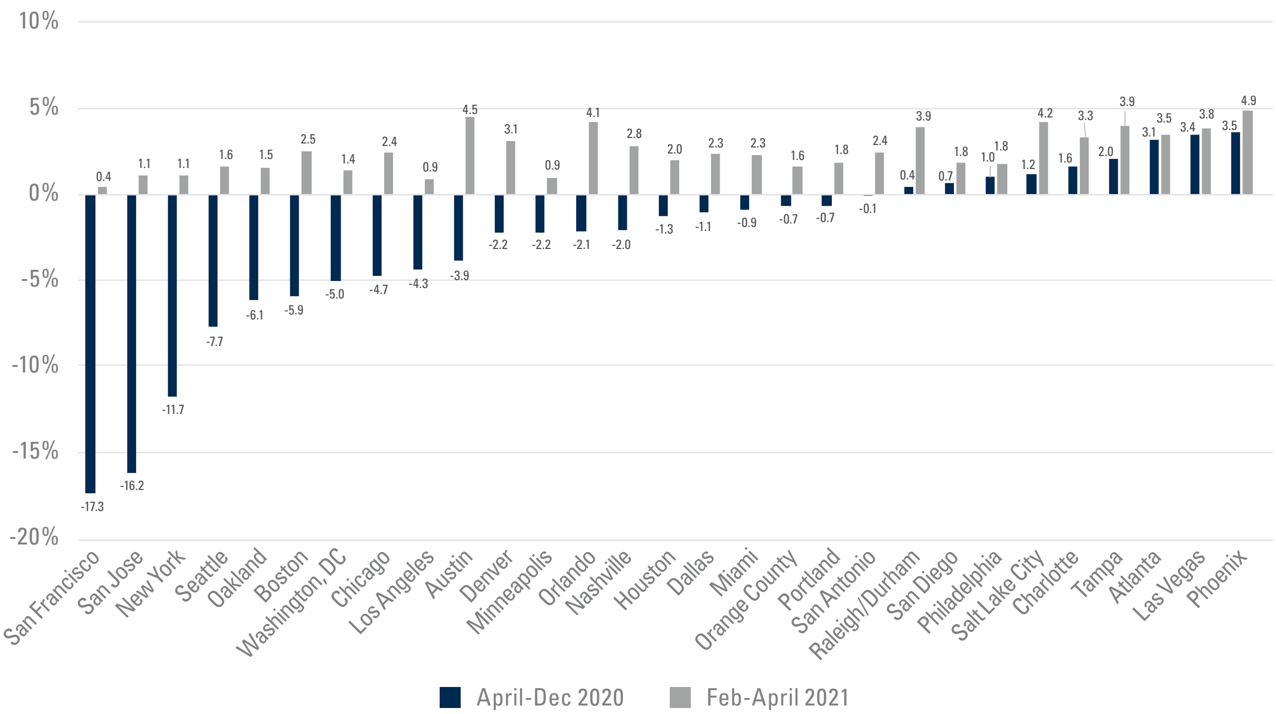


Source: RealPage/Axiometrics, USAA Real Estate Research

Urban areas may be poised to see outperformance in rent growth as the economy returns to normal. As of this writing, over 237 million vaccine doses have been distributed in the United States, with over 42% of the population fully vaccinated, and 51.9% had received at least one dose.[9] We are seeing positive signs across the board in the multifamily sector over the past two months, as the top 56 markets covered by Axiometrics all had positive rent growth from February to April 2021 (see **Exhibit 6**), and even the densest areas shown in **Exhibit 4** saw positive rent trends for the first quarter of 2021.

9. As of 6/11/21, https://www.npr.org/sections/health-shots/2021/01/28/960901166/how-is-the-covid-19-vaccination-campaign-going-in-your-state

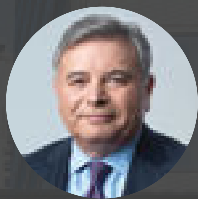
EXHIBIT 6: Rent Growth by Market



Source: U.S. Postal Service, RealPage/Axiometrics, USAA Real Estate Research

Conclusion

The U.S. Postal Service COA dataset provides timely insights into the nature of 2020 migration activity, relative to pre-pandemic trends. In our view, headlines regarding mass migration out of coastal markets is overblown. Most U.S. markets saw migration trends in 2020 that were largely a continuation of pre-pandemic movement. It is relatively noteworthy how stable national moving levels and inter-market moving activity was. However, there were some substantial shifts as it relates to intra-market migration, and coastal urban areas in particular felt some pain as residents didn't need to live near the office and/or cultural attractions. Given many of these residents remained in their markets, the prospect for these trends to reverse as COVID-19 impacts subside is heightened. Of course, there will be some residual effects, and the staying power of WFH will have an impact. We do not expect most employees will work from home full-time, but if they only come to the office 2-3 days per week, perhaps they can manage a longer commute in certain cases. Demographic shifts this decade already would have supported growth in urban nodes and close-in suburban areas; we will continue to closely monitor these trends.



Will McIntosh, Ph.D
Global Head of Research
will.mcintosh@usrealco.com

Chenchao Zang
Senior Data Science Associate
chenchao.zang@usrealco.com

Mark Fitzgerald, CFA, CAIA
Executive Director, Research
mark.fitzgerald@usrealco.com

Jane Zheng
Data Science Associate
jane.zheng@usrealco.com

Important Disclosures

These materials represent the opinions and recommendations of the author(s) and are subject to change without notice. USAA Real Estate, its affiliates and personnel may provide market commentary or advice that differs from the recommendations contained herein. Certain information has been obtained from sources and third parties. USAA Real Estate does not guarantee the accuracy or completeness of these materials or accept liability for loss from their use. USAA Real Estate and its affiliates may make investment decisions that are inconsistent with the recommendations or views expressed herein. Past performance is no guarantee of future results.

The opinions and recommendations herein do not take into account the individual circumstances or objectives of any investor and are not intended as recommendations of particular investments or strategies to particular investors. No determination has been made regarding the suitability of any investments or strategies for particular investors.

Research team staff may make or participate in investment decisions that vary from these recommendations and views and may receive compensation based on the overall performance of the USAA Real Estate or its affiliates or certain investment funds or products. USAA Real Estate and/or its affiliates or clients may be buying, selling, or holding significant positions in investments referred to in this report.

USAA Real Estate
9830 Colonnade Blvd., Suite 600
San Antonio, TX 78230
USA

Tel: 210.641.8416
Fax: 210.641.8425
Web: www.usrealco.com

USAA Real Estate
9830 Colonnade Blvd., Suite 600
San Antonio, TX 78230 USA

usrealco.com

Square Mile Capital
350 Park Avenue
New York, New York 10022 USA

squaremilecapital.com