

The GoDaddy/UCLA Anderson Forecast Microbusiness Activity Index Update, 2022Q4

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In July 2021, the UCLA Anderson Forecast, in partnership with GoDaddy Inc., published a new Microbusiness Activity Index (MAI) on the formation, growth, and dynamics of online microbusinesses using data provided by GoDaddy.¹ The MAI is highly correlated with key economic indicators, including employment and unemployment, and provides timely insight into local economic activity. Biannual reporting of the index with commentary and analysis continues with the current report.

Highlights of 2022Q4 report

- **Due to rising interest rates and a slowing economy, the overall microbusiness activity index has declined from its peak of 106.5 in April 2022 to 102.7 in December 2022.**
- **After controlling many likely national and local causes of job growth, we find that every one additional online microbusiness owner is associated with an increase of 6.7 jobs based on panel county data in the U.S. from April 2020 to December 2022.**

This report is the 2022 Q4 update and contains data up to December 2022 for the nation, states, metropolitan areas, and counties. The activity or composite index for microbusiness in the U.S. (blue line in Figure 1) decreased slightly to 102.7 in December 2022 from 102.9 in June 2022. The Microbusiness Activity Index (MAI) remained stable over the past 6 months after coming down from a surge in April and May 2022.

The MAI is composed of three sub-indices: (1) *Infrastructure* which includes human capital and digital infrastructure, including broadband and computer access (black line in Figure 1). These are long-term factors, which do not change much from one quarter to the next. This sub-index is derived from the American Community Survey data and updated upon its annual release. The 2022 update had an increase from 102.4 in 2021 to 104.2 in 2022 in the U.S., reflecting improvements in educational attainment (increase of 0.08 school years) and access to broadband (85.2% to 87% of households) and computers (91.9% to 93.1% of households).

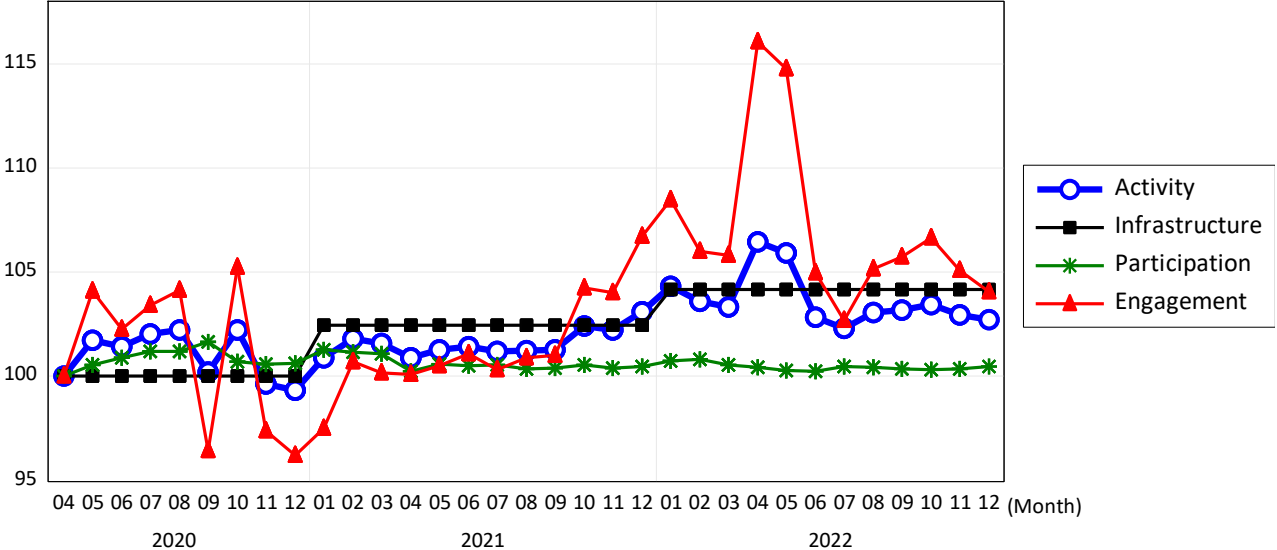
(2) *Participation* (green line in Figure 1) includes the density and growth rate of online microbusinesses and online microbusiness owners, also called “everyday entrepreneurs.” Compared to a wide range of fluctuations in the engagement index, there was not much change in the participation index in Figure 1. The participation index increased slightly from 100.2 in June 2022 to 100.5 in December 2022. As mentioned in previous reports, we find that the participation index is the major driver of local economic activities. More discussion to follow.

(3) *Engagement* (red line in Figure 1) includes a variety of measures of online and website engagement by both everyday entrepreneurs and their customers. The engagement index fluctuated from 106.7 in

¹ See <https://www.anderson.ucla.edu/about/centers/ucla-anderson-forecast/projects-and-partnerships/godaddy>

December 2021 to 116.1 in April 2022, and then it plunged to 105 in June, 103 in July 2022, and recovered to 104.1 in December 2022. In addition to these sizable volatilities, the engagement index has been trending down in general since early 2022, indicating that microbusinesses are less engaged in online activity in the second half of 2022. Since two other sub-indices are relatively stable in 2022, the MAI dynamics are mostly driven by the engagement index.

Figure 1. Microbusiness Activity and Sub-Indices (Even-Weight, U.S.)



We suggest that the slowing MAI and the engagement index is consistent with and reflective of the U.S. economy. To fight against inflation, the Federal Reserve started to raise the interest rates in March 2022. As a result, economic growth cooled down. Figure 1A shows the real retail sales in 2021 and 2022, which present a similar trend as the engagement index, which peaked in April 2022 and declined in the subsequent months.

The Impact of Microbusiness and Everyday Entrepreneurs

As mentioned previously, the participation index is comprised of densities and growth rates of GoDaddy’s microbusinesses – which includes all new websites – and their measure of everyday entrepreneurs – or online business owners. An important question is whether the formation and growth of these entrepreneurs have an impact on the local economy. For instance, do these entrepreneurs hire employees and create jobs while running their microbusinesses? According to the annual survey² in 2023 conducted by GoDaddy to their everyday entrepreneur customers, one third of them have more than one microbusiness. The survey also asked how many employees do they have at their organizations as shown in Figure 1B. While 62% of entrepreneurs are solopreneurs, 38% have more than one employee. On average, each entrepreneur creates 3.6 jobs according to this survey. The result is similar to the ones conducted in prior years.

² The Survey was conducted in February 2023 nationwide with 3,609 responses.

Figure 1A. Advanced Real Retail and Food Services Sales

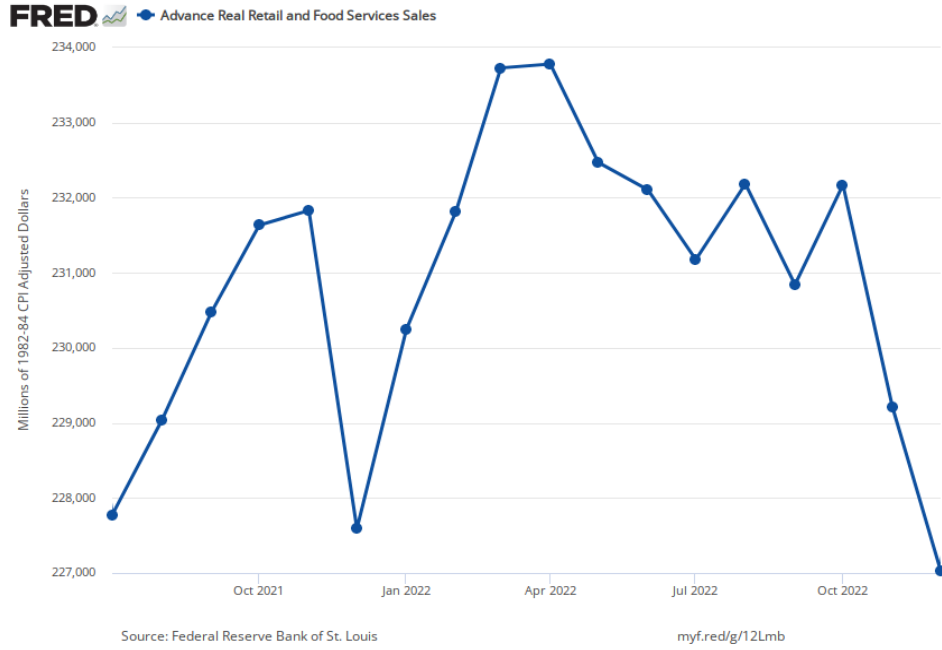
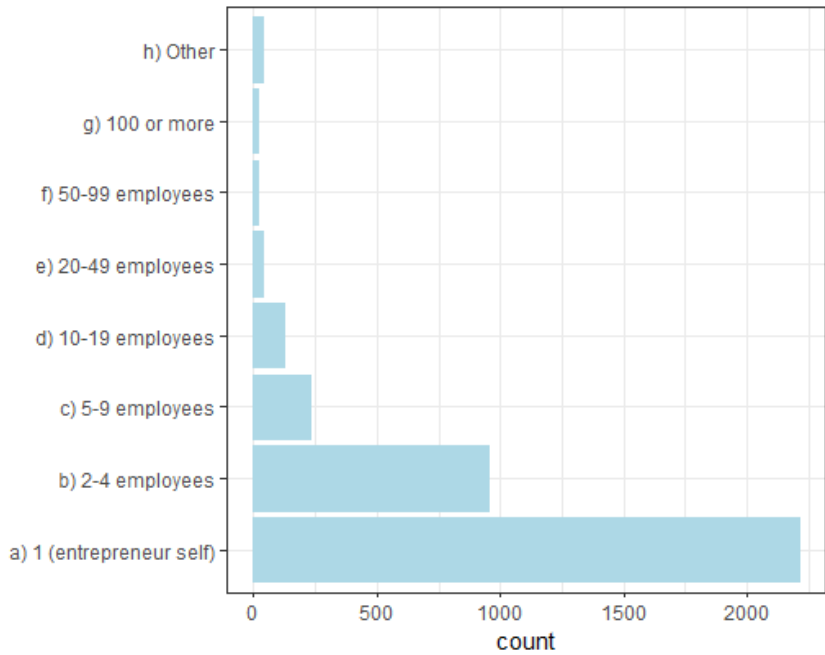


Figure 1B. The Number of Employees in Everyday Entrepreneurs' Organizations



Source: GoDaddy's 2023 survey

Beyond the survey, in our July 2021 report “What Drives Microbusiness Formation and Growth?” we documented evidence of correlations between the macroeconomy and microbusiness by analyzing if microbusiness impacts employment across the nation. Does this correlation still hold with new data in 2021 and 2022? We use the county monthly employment change by Household Survey from April 2020 to December 2022 as the dependent variable and run the following linear regression to see if county change of everyday entrepreneur employment predicts the county job growth. The answer is a resounding yes. After controlling many likely national and local causes of job growth, we find that one everyday entrepreneur increase is associated with an additional 6.7 jobs in the county.

$\Delta \text{ employment } (t)$	=	0.04	x	$\Delta \text{ employment } (t-1)$	-	54	x	$\text{ employment } (t)$	+	6.7	x	$\Delta \text{ entrepreneur } (t)$	+ $e(t)$
(t-value)		(24)				(41)				(30)			
Adj R squared: 0.26; with month fixed effect and county fixed effect; Obs: 2627 counties and 33 months													

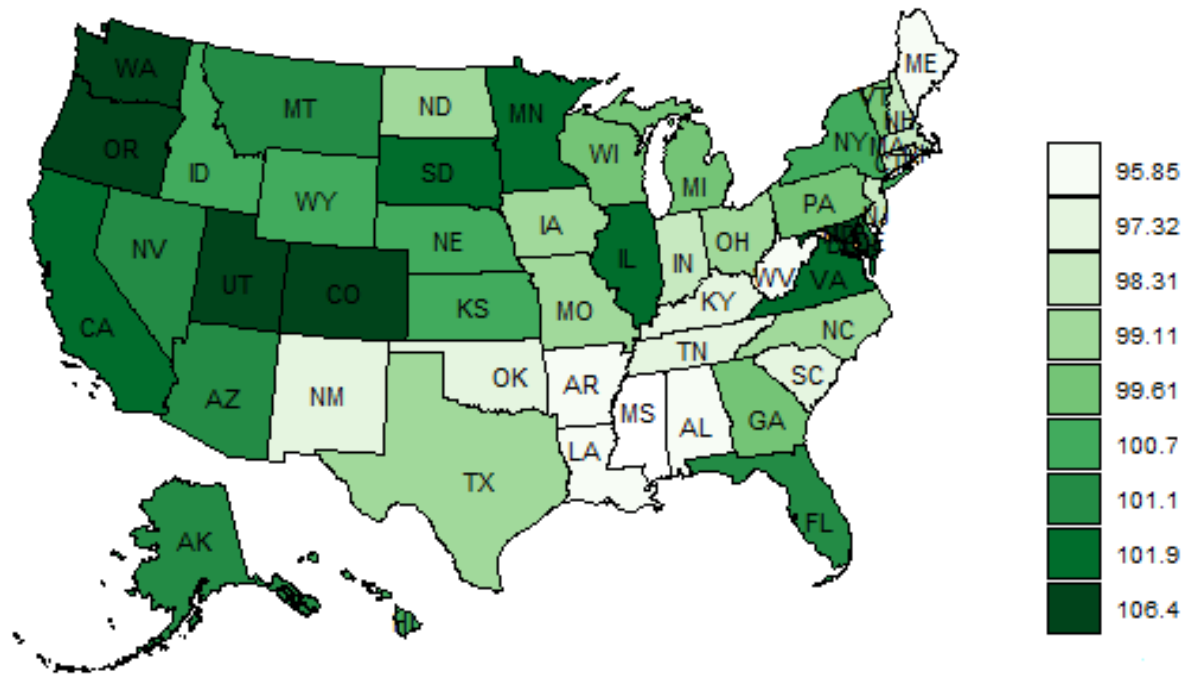
The impact of microbusiness growth on job growth is much smaller: one microbusiness increase will predict an increase of only 0.02 jobs. This is reasonable because GoDaddy hosts some microbusinesses that may not be directly engaged in economic activities. Some of them are websites with no business purpose or activity.

$\Delta \text{ employment } (t)$	=	0.05	x	$\Delta \text{ employment } (t-1)$	-	82	x	$\text{ employment } (t)$	+	0.02	x	$\Delta \text{ microbusiness } (t)$	+ $e(t)$
(t-value)		(36)				(85)				(2.4)			
Adj R squared: 0.25; with month fixed effect and county fixed effect; Obs: 2627 counties and 33 months													

The Microbusiness Activity Index Across the State, Metro, and County

Figure 2 shows the level of the MAI by state in December 2022. The darker the green color, the higher the activity index. Washington DC (108.8), Colorado (106.8), Utah (106.3), Maryland (105.5), Oregon (105.3), and Illinois (104.9) had the highest levels on the index. Rhode Island (98.6), West Virginia (98.2), and Mississippi (97.4) had the lowest levels. Figure 3 shows the change in the MAI by state from December 2021 to December 2022, with the intensity of the blue color indicating a larger increase or a smaller decline. We can see Maine (+0.5), Alabama (+0.2), West Virginia (+0.04), Montana (0), Michigan (-0.01), and Kentucky (-0.03) experienced smaller declines in the index over the past year. Nevada (-1), Rhode Island (-1.5), and Delaware (-2.8) experienced larger declines on the other end. The participation index for Rhode Island was the main drag, while the engagement index for Delaware was the major negative force.

Figure 2. Microbusiness Activity Index by State, December 2022



Note: Base month year is April 2020

Figure 3. Microbusiness Activity Index Change by State, December 2021 to December 2022

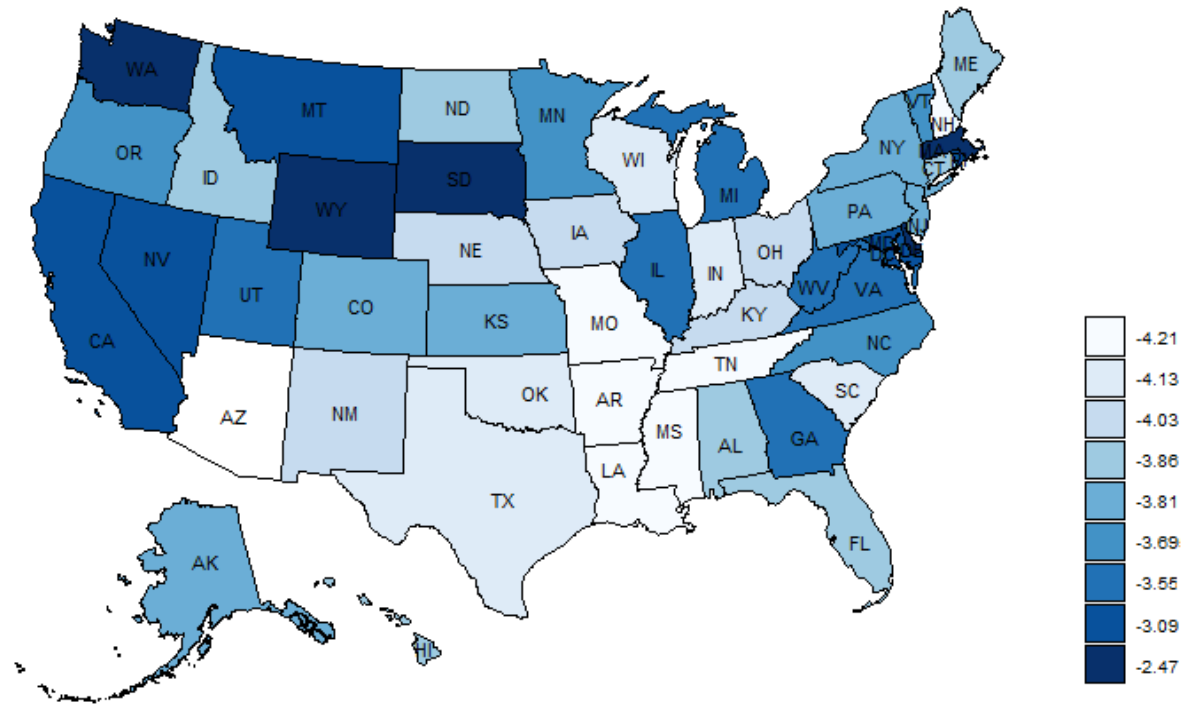


Figure 4 shows the MAI by county in December 2022. The colors go from dark blue for the highest index values to dark red for the lowest index values. The variation across counties is similar to the variation in prior months. Coastal regions and major cities tend to have higher values on the index, while inland and rural regions tend to have lower values. Counties with high values of the index due primarily to their infrastructure index (which includes a measure of human capital) are all in Virginia: Falls Church, VA (116.6), Arlington County, VA (116.3), and Fairfax, VA (115.8). Counties with high values due to their participation index are Charlottesville, VA (116.4) and Hamilton County, IN (115.8).

Figure 5 shows the change in MAI by county from December 2021 to December 2022. The colors go from dark blue for the highest increase in index values to dark red for the highest decline in index values. Many counties with a declining MAI are driven by reduced engagement over the past year.

Figure 4. Microbusiness Activity Index by County, December 2022

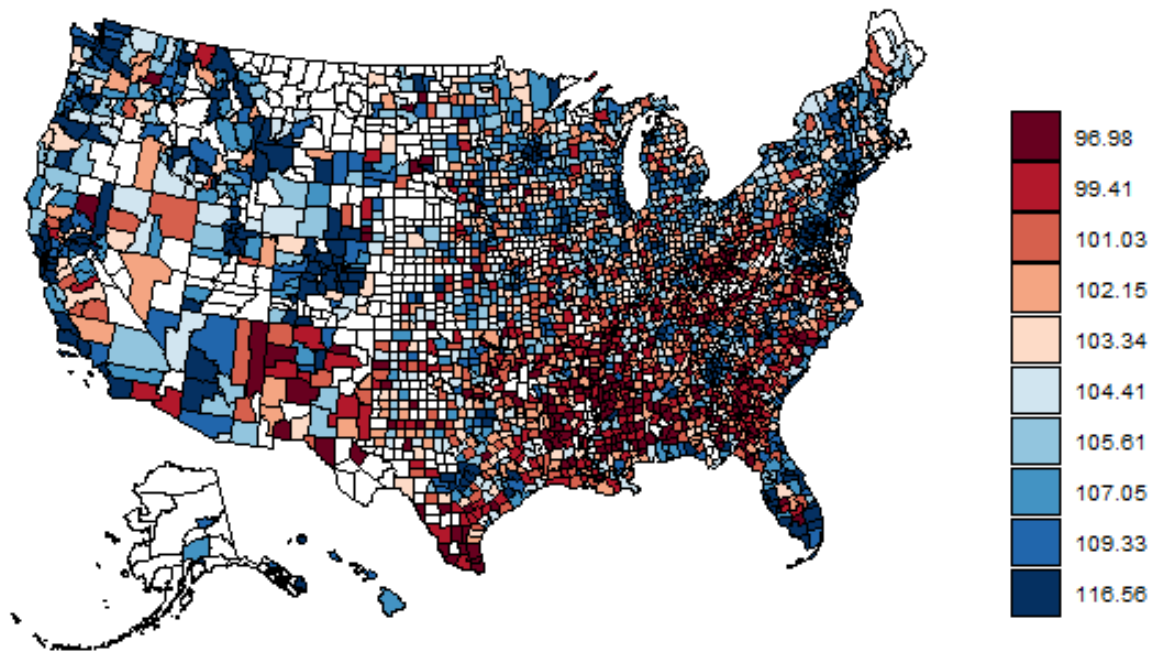


Figure 5. Microbusiness Activity Index Change by County, December 2021 to December 2022

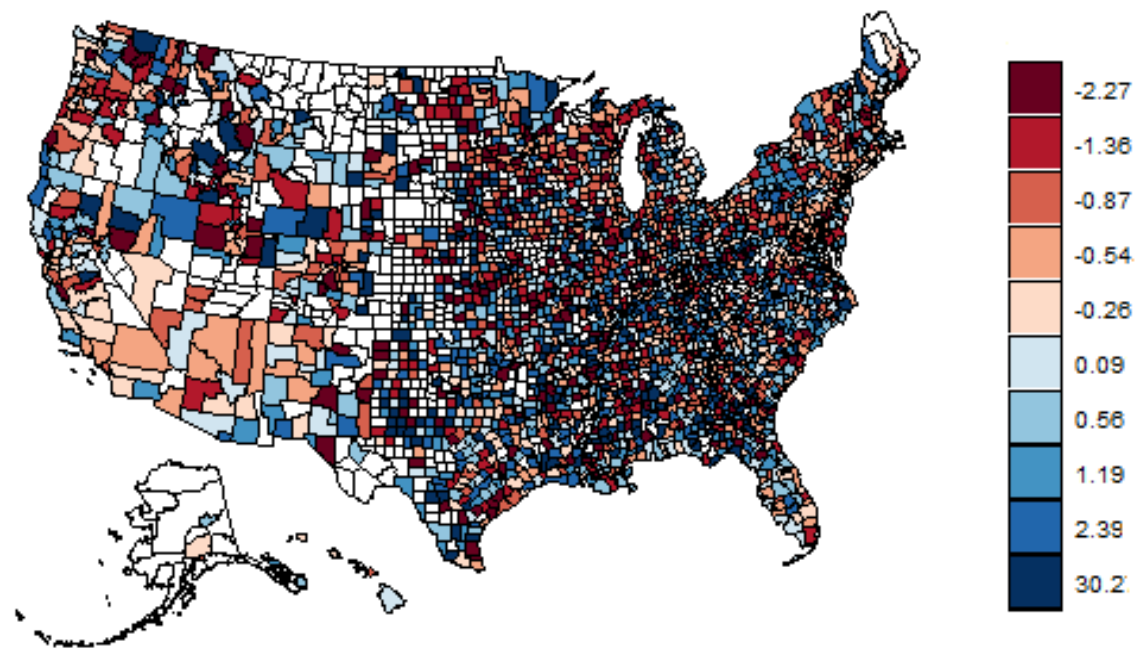


Figure 6 shows the MAI for 30 selected MSAs (Metropolitan Statistical Areas) in April 2020, December 2021, and December 2022. In December 2022, San Jose (Silicon Valley) had the highest activity index value (112.3), followed by San Francisco (111.2), Washington DC (110.5), Denver (110.4), San Diego (110.3), and Austin (110). On the other hand, New York (106.1), Las Vegas (106), and San Antonio (104.9) had the lowest activity values. As a way of explanation, San Antonio's having the lowest MAI is most likely due to its low infrastructure index (110.9 vs. San Jose's 123.9). Over the past year, the MAI decreased across most metros, except Seattle (+0.7), San Antonio (+0.1), and Detroit (+0.1). San Jose (-1), Denver (-1.1), and Phoenix (-1.3) had the largest decreases in the value of their activity indices.

In December 2022, San Diego had the highest value on the participation index (106.5), followed by Los Angeles (106.2) and San Francisco (106.2). Over the past year, Indianapolis (+0.7), Minneapolis (+0.6), and Orlando (+0.3) had the largest increase in the participation index, and Las Vegas (+0.28), Miami (+0.26), and Phoenix (-2.26) the most negative (Figure 7).

In December 2022, San Jose had the highest value of the engagement index (104.4), followed by Chicago (104.1), Minneapolis (103.7), and Detroit (103.7). As addressed in the previous report, San Jose has been and remains the top metro for microbusiness with its consistently high levels of engagement. That is reflective of the fact that Silicon Valley is not only home to the most prominent Big Tech companies but also to many small startups who aspire to be part of Big Tech (Figure 8).

In 2022, San Jose had the highest score on the infrastructure index (123.9), followed by Washington DC (123.3) and San Francisco (121.5). On the other end, Miami (111.3), San Antonio (110.9), and Las Vegas (109.8) had the lowest values among these selected metros. We notice that metros with a lower infrastructure index had a larger increase, such as San Antonio (+5.6), Detroit (+5.1), and Miami (+5.1), while metros with a higher infrastructure level had a smaller increase. To some degree, metros with lower infrastructure rankings are catching up (Figure 9), which is a good sign for the country.

Over the past three years, the infrastructure, participation and engagement of online microbusinesses have helped everyday entrepreneurs to mitigate or even overcome economic difficulties during the pandemic by providing a new source of income, opportunity, and purpose. With the aid of new technology and AI, online microbusinesses might be able to compete better with larger corporations and gain a competitive edge in the digital world. We will continue to provide updates of the state of microbusiness and everyday entrepreneurs.

Figure 6. Microbusiness Activity Index, Selected 30 Metros, April 2020, December 2021, and December 2022

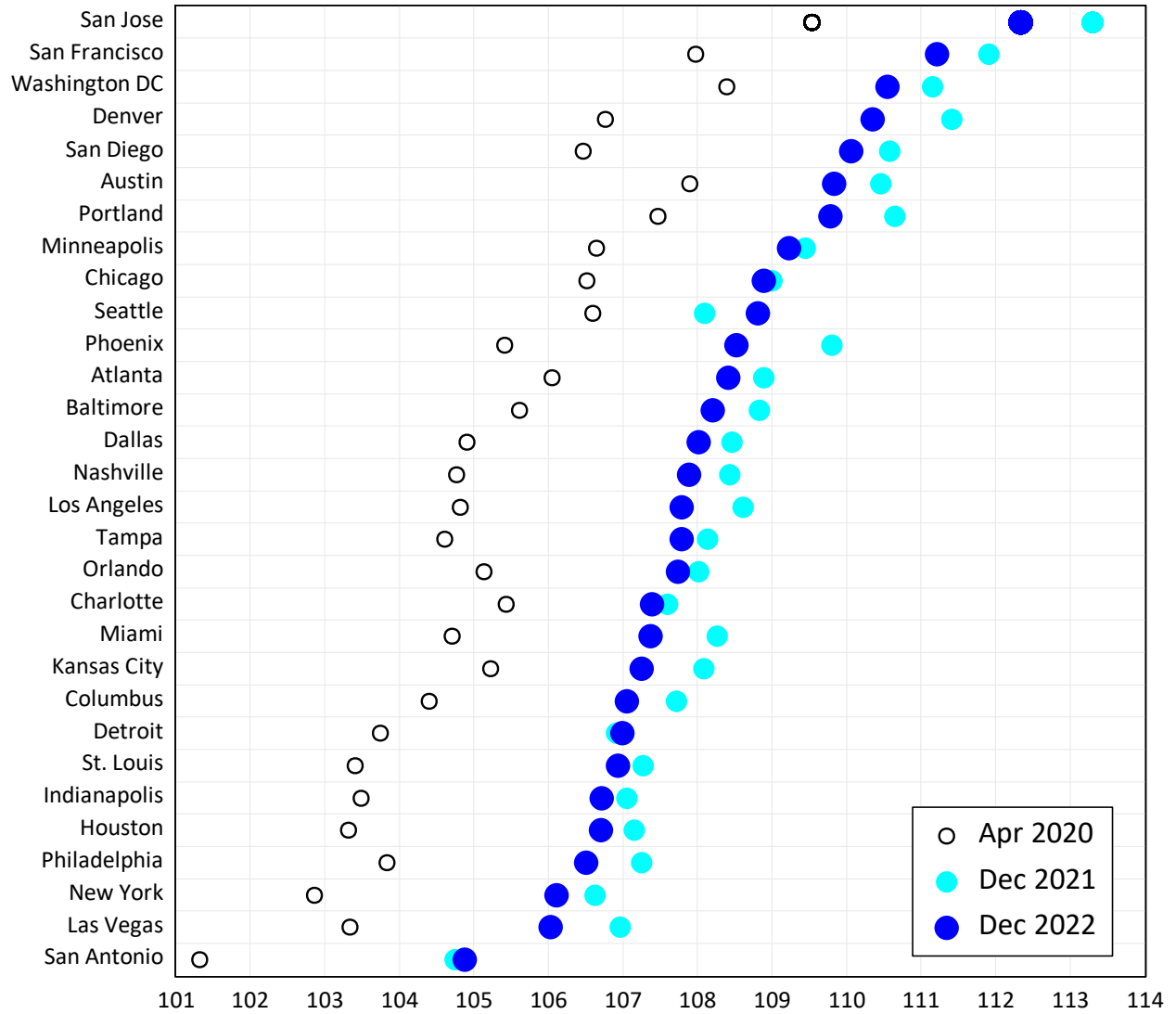


Figure 7. Microbusiness Participation Index, Selected 30 Metros, April 2020, December 2021, and December 2022

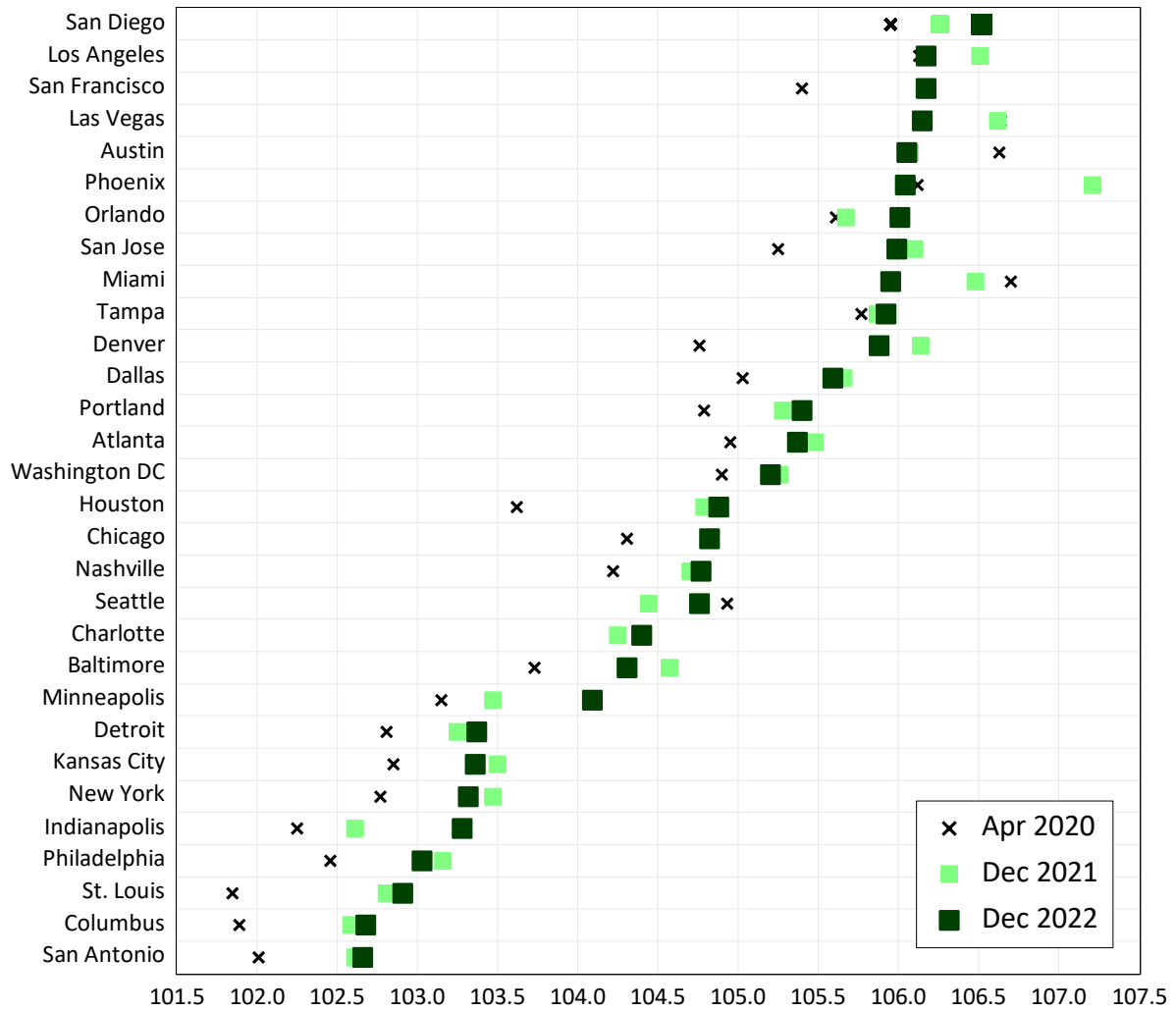


Figure 8. Microbusiness Engagement Index, Selected 30 Metros, April 2020, December 2021, and December 2022

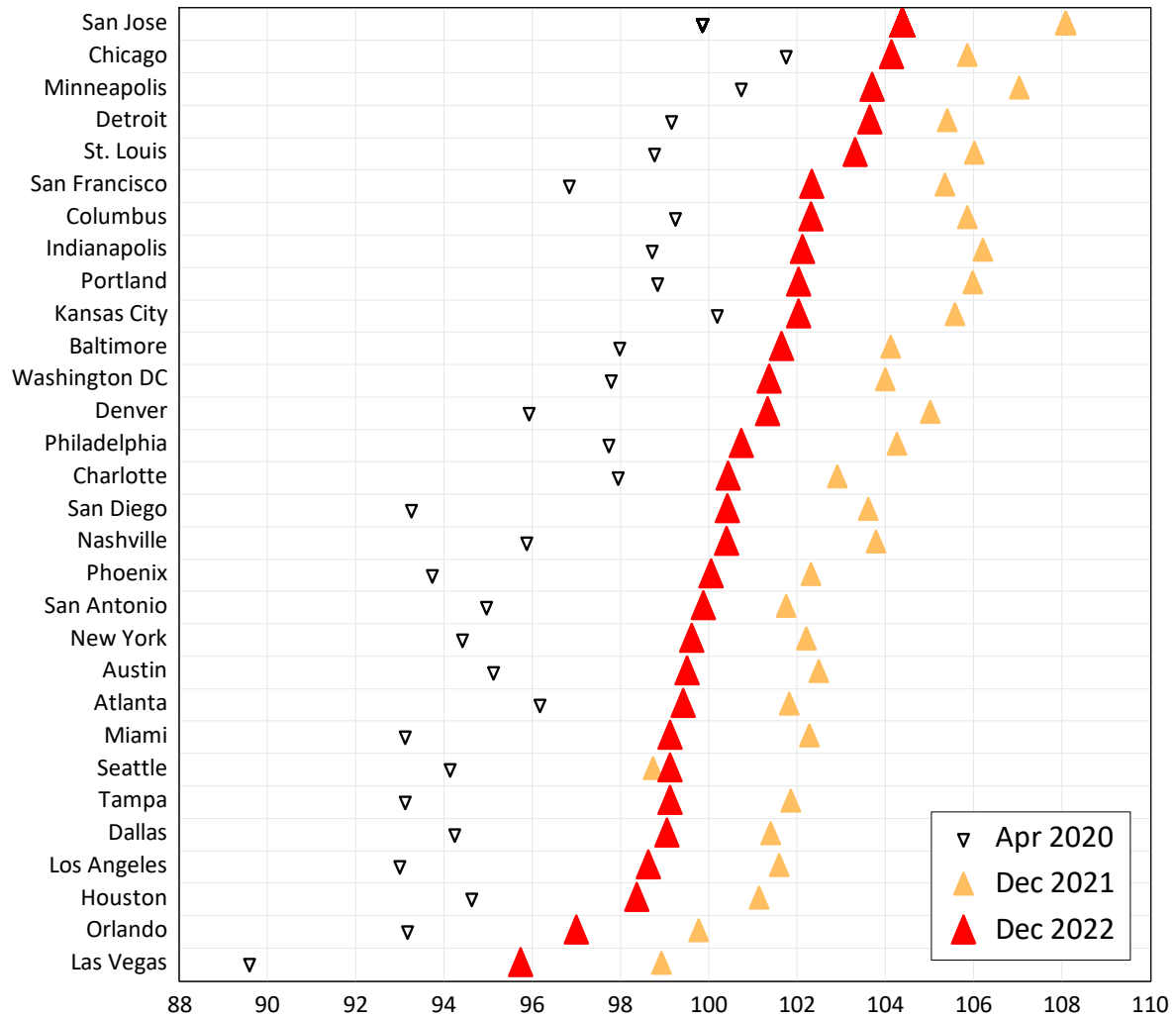


Figure 9. Microbusiness Infrastructure Index, Selected 30 Metros, April 2020, December 2021, and December 2022

