

The GoDaddy/UCLA Anderson Forecast Microbusiness Activity Index Update, 2023Q2

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October 2023

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, unemployment, and GDP, and provides timely insight into local economic activity. Biannual reporting of the index with commentary and analysis continues with the current report.

Highlights of 2023Q2 report

- **Due to rising interest rates and a slowing economy, the microbusiness activity index has declined from 102.6 in December 2022 to 101.9 in June 2023.**
- **Based on annual panel state data from 2020 to 2022, we find that each additional point of the infrastructure index is associated with 2% growth of state GDP.**

This report provides an update for the first half of 2023 and incorporates data up to June 2023, covering the nation, states, metropolitan areas, and counties. The U.S. Microbusiness Activity Index² (MAI) saw an uptick in February and March 2023 but subsequently declined in the succeeding months, setting at 101.9 in June 2023 down from 102.6 in December 2022 (blue line in Figure 1).

The dip in the MAI mirrors the broader trends in the U.S. economy. Since March 2022, the short-term interest rates have surged from 0% to 5.3%. Consequently, we have observed a tempering of economic growth and small business activity. Figure 1A shows the real retail sales over the past three years, highlighting a trend akin to MAI's; it peaked in April 2022 has been on a downward trend since. Amid persistently elevated inflation, interest rates are poised to remain high in the upcoming year. Given this context, we suggest that microbusiness activity will likely remain muted in the months ahead. Further updates will be provided in our subsequent report.

The MAI comprises three sub-indices: (1) The *Infrastructure* sub-index encompasses human capital and digital infrastructure, including broadband and computer accessibility (black line in Figure 1). These elements are long-term factors, which do not change much from one quarter to the next. Data for this sub-index is derived from the American Community Survey and is refreshed with its annual release. The 2022 update indicated an increase in the U.S. from 102.4 in 2021 to 104.2 in 2022. This rise signifies advancements in educational attainment and enhanced access to broadband and computers. The 2021 Infrastructure Investment and Jobs Act set forth an investment of \$65 billion in broadband. We therefore expect the Infrastructure index

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

² See also <https://www.godaddy.com/ventureforward/explore-the-data/microbusiness-index/>

to rise cross the country, especially in rural regions.

(2) The *Participation* sub-index (green line in Figure 1) factors in the density and growth rate of online microbusinesses and online microbusiness owners, also referred to as “everyday entrepreneurs.” Compared to a wide range of fluctuations in the engagement index, the participation index remained relatively stable. The index decreased slightly from 100.5 in December 2022 to 100 by June 2023. The prevailing high inflation and surging interest rates are believed to restrict consumer expenditure, thereby curtailing the expansion of microbusiness.

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

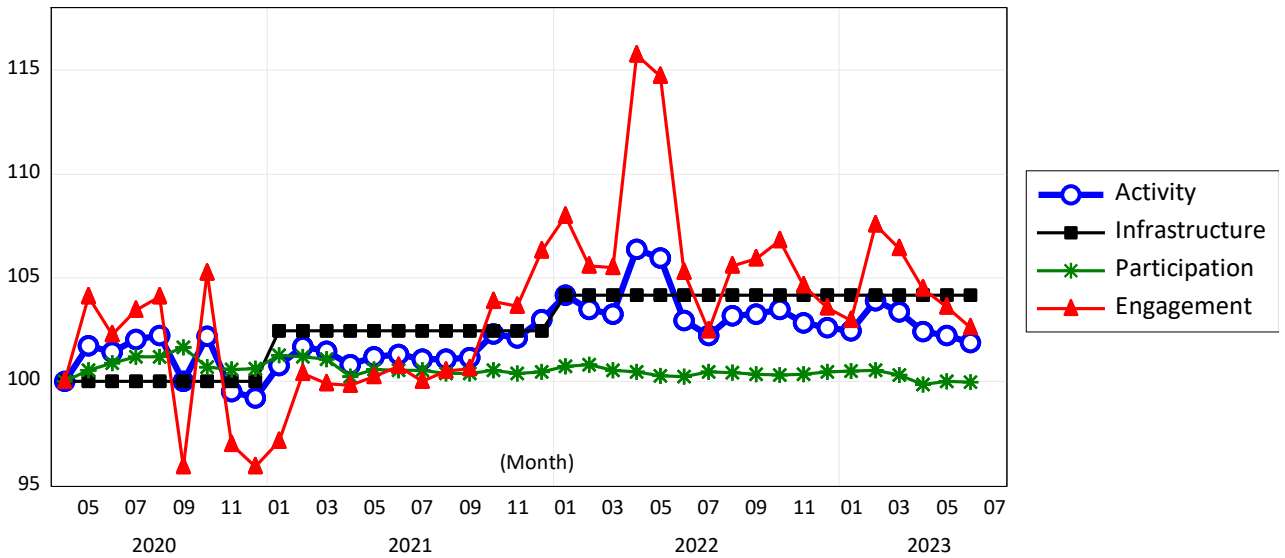
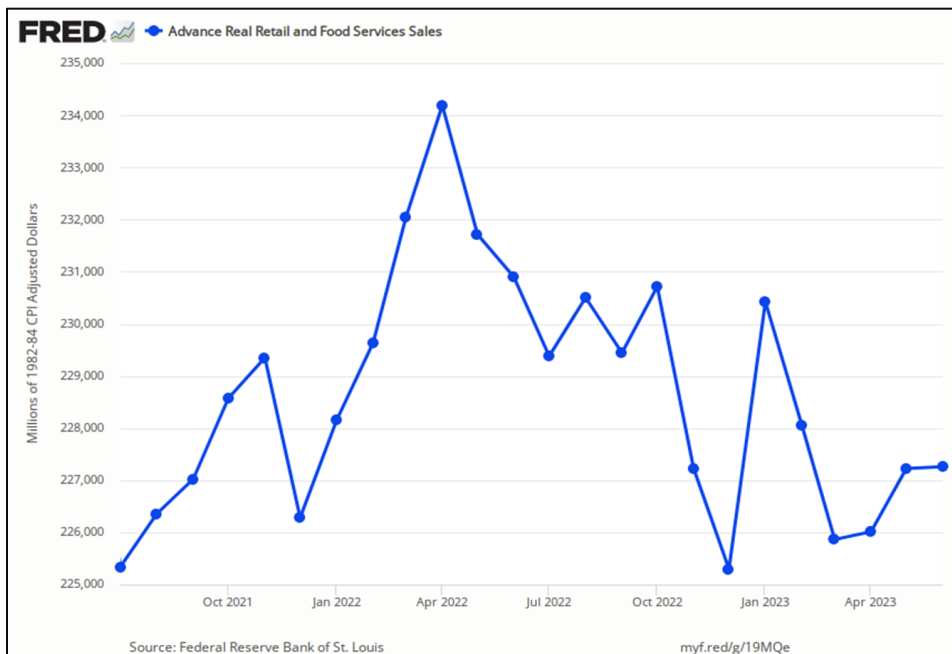


Figure 1A. Advanced Real Retail and Food Services Sales



(3) The *Engagement* sub-index (red line in Figure 1) includes a variety of metrics related to online and website interaction involving everyday entrepreneurs and their customers. The index increased from 103.6 in December 2022 to 107.6 in February 2023, before declining to 102.6 by June 2023. Despite these notable fluctuations, the index has consistently maintained a level above 102, which is higher over its standing in 2020 and 2021. Given that the other two sub-indices remain fairly stable, the dynamics in the MAI are primarily driven by the engagement index.

The State Infrastructure Index and GDP Growth

In our previous reports, we identified evidence demonstrating a significant positive correlation between the MAI index, everyday entrepreneurs, and local economic activity, like employment growth. With support of GoDaddy’s internal survey data, we suggest a positive causal link between microbusiness activity and local economic prosperity. Here, we aim to examine the relationship between state-level microbusiness activity and its real Gross Domestic Product (GDP).

Figure 1B. The Correlation between the Change in Infrastructure Index and Real GDP Growth

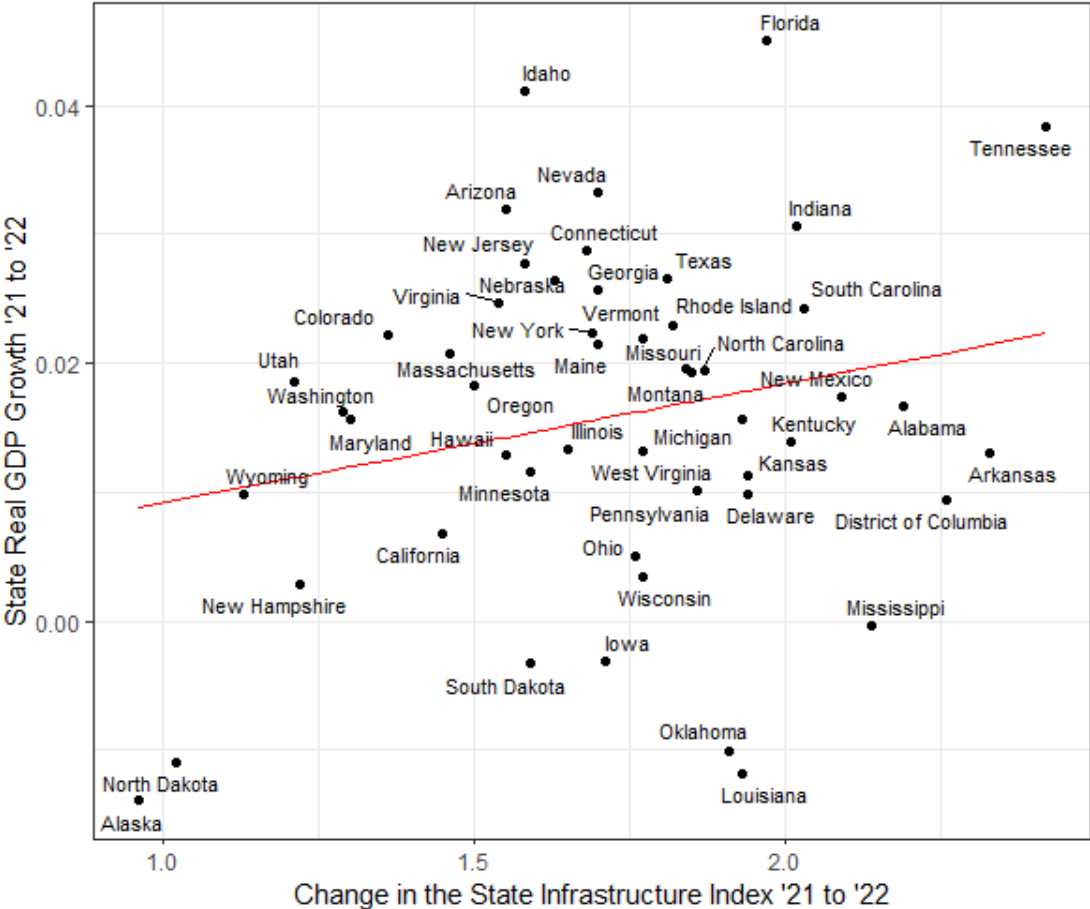


Figure 1B illustrates the correlation between the change in the state Infrastructure index from 2021 to 2022 and the growth of state real GDP during the same period. The red line indicates a positive correlation.

We have executed three panel regressions in the period from 2020 to 2022, as detailed in Models 1 through 3. Each model consistently indicates a significant correlation between the infrastructure index and state GDP growth. Using Model 1 as a baseline model, the significant coefficient of 0.02 suggests that a one-point increase in the Infrastructure index is associated with 2% growth in state GDP. The causal relationship could be understood through two primary channels: (1) Enhancements in broadband infrastructure and human capital bolster productivity and business operations and activity, (2) Investments in a state broadband infrastructure directly contribute to its GDP growth.

Model 1: Baseline with State Fixed Effect and Lag 1; Adjusted R-squared: 0.6; Observations: 204

$$\text{State GDP growth (t)} = -0.014 + 0.45 * \text{State GDP growth (t-1)} + 0.02 * \text{Change in Infrastructure Index (t)}$$

(t-value)
(-0.8)
(4.4)
(3.9)

Model 2: State Fixed Effect; Adjusted R-squared: 0.46; Observations: 204

$$\text{State GDP growth (t)} = -0.06 + 0.03 * \text{Change in Infrastructure Index (t)}$$

(t-value)
(-3.8)
(7.9)

Model 3: Lag 1; Adjusted R-squared: 0.28; Observations: 204

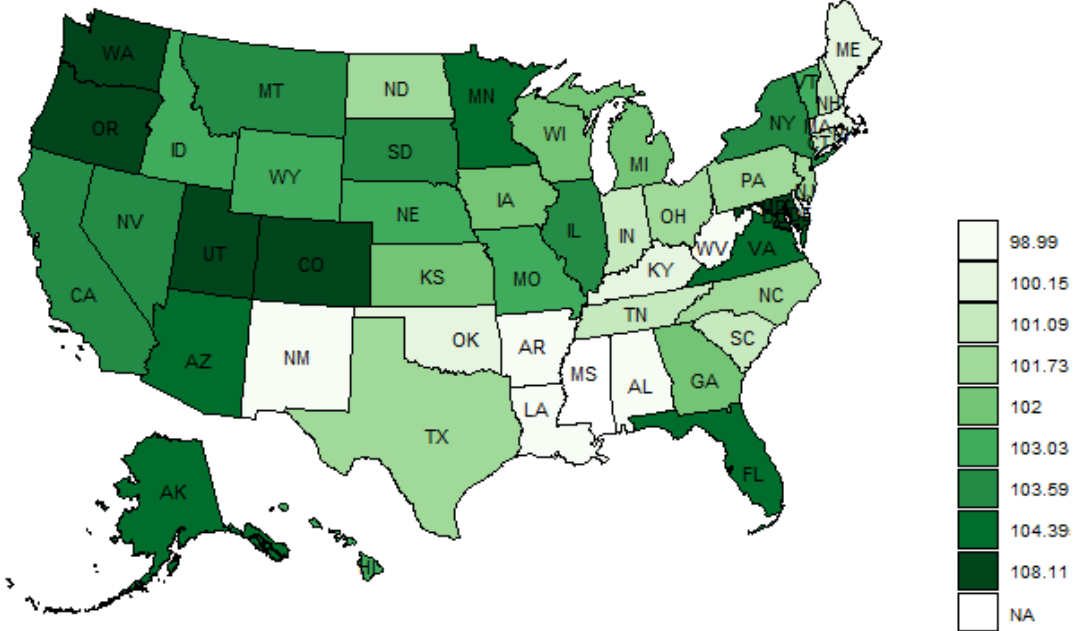
$$\text{State GDP growth (t)} = -0.003 + 0.38 * \text{State GDP growth (t-1)} + 0.01 * \text{Change in Infrastructure Index (t)}$$

(t-value)
(-0.35)
(4.7)
(3.1)

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

Figure 2 shows the level of the MAI by state in June 2023. The darker the green color, the higher the activity index. Washington DC (108.1), Colorado (106.1), Utah (105.9), Oregon (104.7), Maryland (104.6), and Washington (104.6) had the highest levels on the index. Arkansas (97.5), West Virginia (97.4), and Mississippi (96) had the lowest levels. Figure 3 shows the change in the MAI by state from June 2022 to June 2023, with the intensity of the blue color indicating a larger increase or a smaller decline. We can see Washington (+0.5), Rhode Island (+0.2), Connecticut (+0.04), Vermont (0), Alaska (-0.01), and Massachusetts (-0.03) experienced increases or smaller declines in the index over the past year. California (-1.6), Kansas (-1.6), and Illinois (-1.7) experienced larger declines on the other end. The drop of the engagement index for Kansas and Illinois was the major negative force.

Figure 2. Microbusiness Activity Index by State, June 2023



Note: Base month year is April 2020

Figure 3. Microbusiness Activity Index Change by State, June 2022 to June 2023

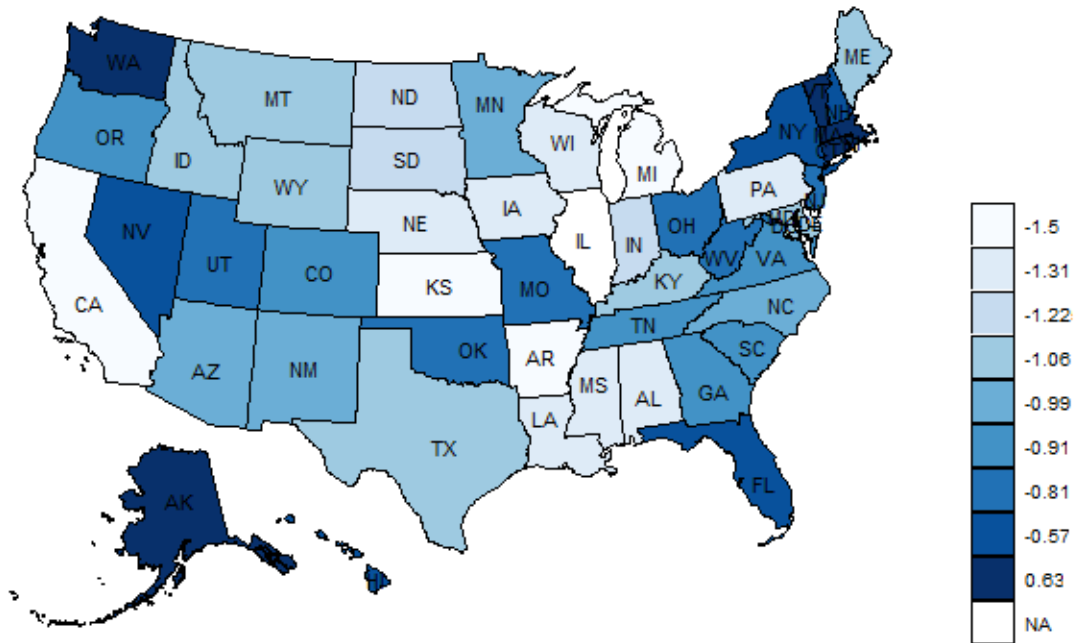


Figure 4 displays the MAI by county in June 2023. The colors go from dark blue, representing the highest index values, to dark red, indicating the lowest values. The variation across counties mirrors patterns observed in previous months. Coastal regions and major urban centers generally score higher on the index, whereas inland and rural regions typically register lower values. Counties with high values of the index due primarily to their infrastructure index (which includes a measure of human capital) are all located in Virginia: Falls Church, VA (116.7), Arlington County, VA (115.7), and Fairfax, VA (115.8).

Figure 5 depicts the shift in MAI by county from June 2022 to June 2023. 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, June 2023

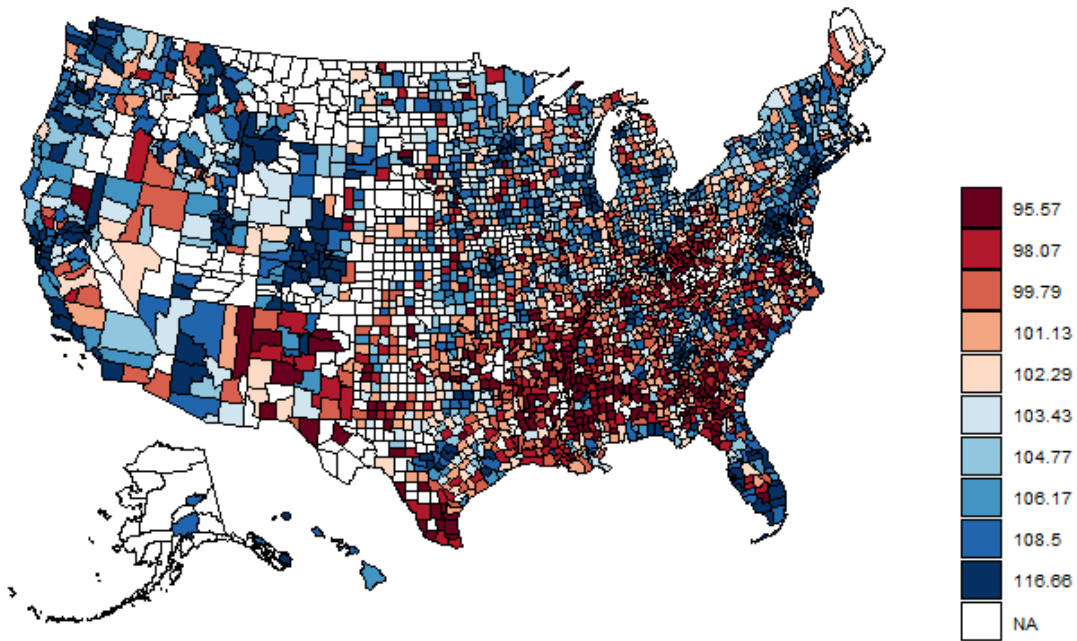


Figure 5. Microbusiness Activity Index Change by County, June 2022 to June 2023

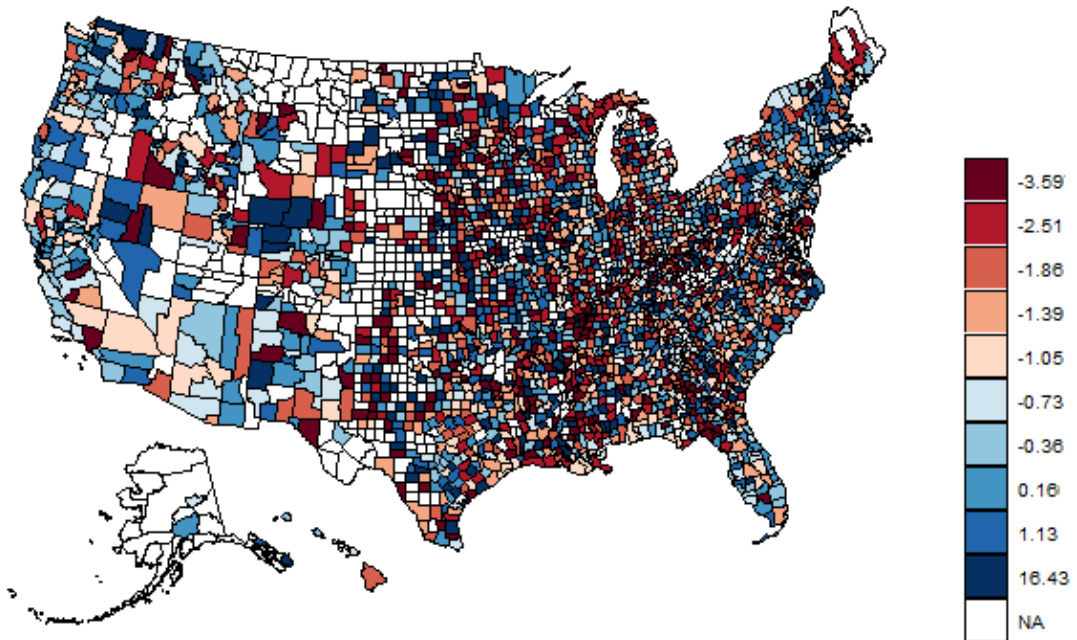


Figure 6 shows the MAI for 30 selected MSAs (Metropolitan Statistical Areas) in April 2020, June 2022, and June 2023. In June 2023, San Jose (Silicon Valley) had the highest activity index value (111.6), followed by San Francisco (111), Washington DC (110), San Diego (109.9), Denver (109.6), and Austin (109.5). On the other hand, Detroit (105.2), Los Angeles (105), and San Antonio (104.1) had the lowest activity values. Over the past year, the MAI decreased across most metros, except Seattle (+2). Detroit (-1.7), Chicago (-2), and Los Angeles (-3.4) had the largest decreases in the value of their activity indices.

In June 2023, Miami had the highest value on the participation index (106.5), followed by San Diego (106.4) and Las Vegas (106.1). Over the past year, Seattle (+1.8), Philadelphia (+0.3), and Nashville (+0.1) had the largest increase in the participation index, and Detroit (-0.53), Chicago (-0.9), and Los Angeles (-4) the most negative (Figure 7).

In June 2023, Minneapolis led with the highest engagement index value at 103.3, followed by San Jose (102.4), San Francisco (102.2), and St. Louis (101.8). San Jose has consistently ranked among the top metro areas for microbusinesses, maintaining its elevated levels of engagement. That is emblematic of Silicon Valley's dual nature—while it is the hub for some of the world's most renowned Big Tech firms, it also serves as fertile ground for budding startups that aspire to be part of Big Tech (Figure 8). We will continue to provide updates of the state and dynamics of microbusiness in the future reports.

Figure 6. Microbusiness Activity Index, Selected 30 Metros, April 2020, June 2022, and June 2023

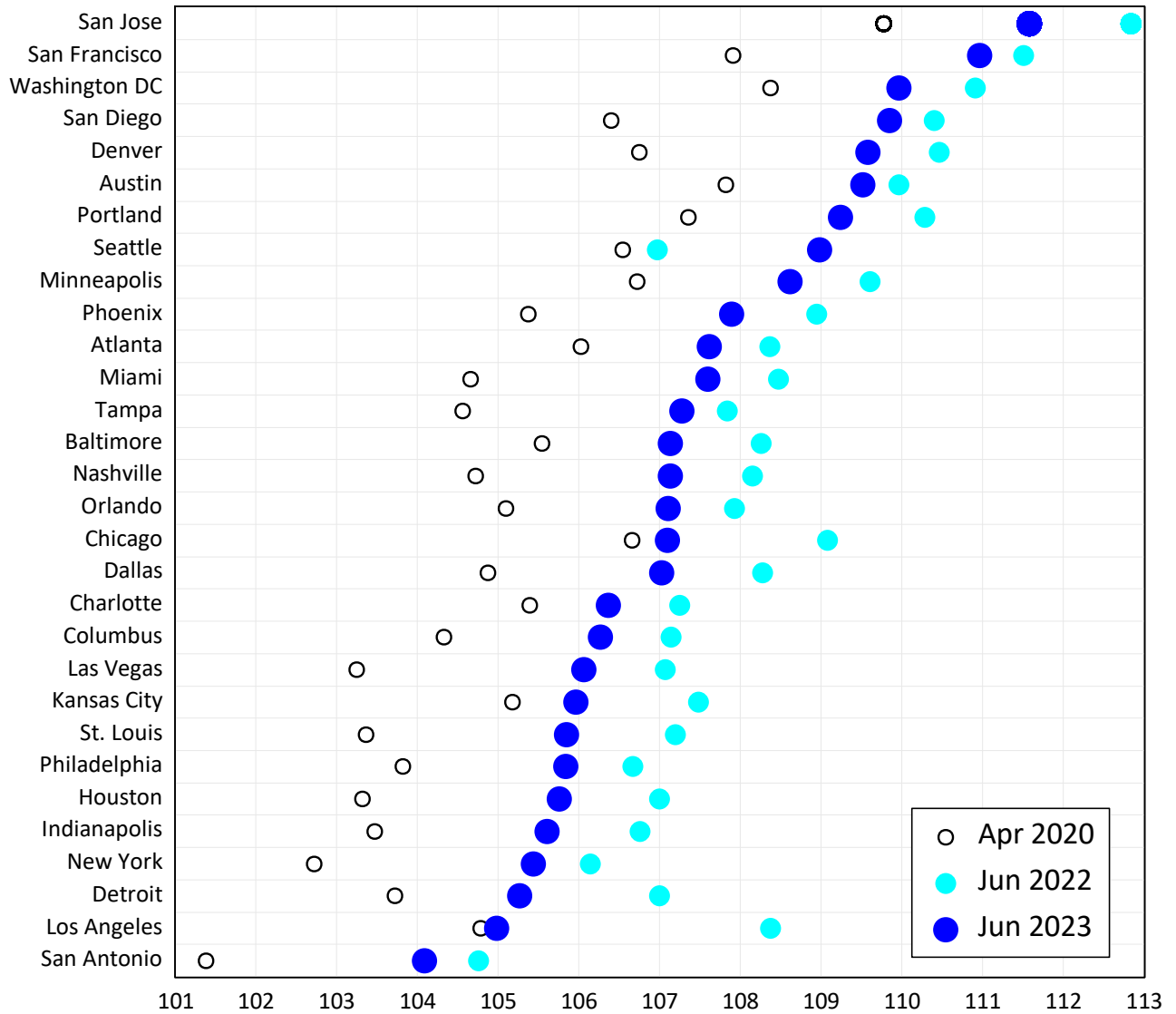


Figure 7. Microbusiness Participation Index, Selected 30 Metros, April 2020, June 2022, and June 2023

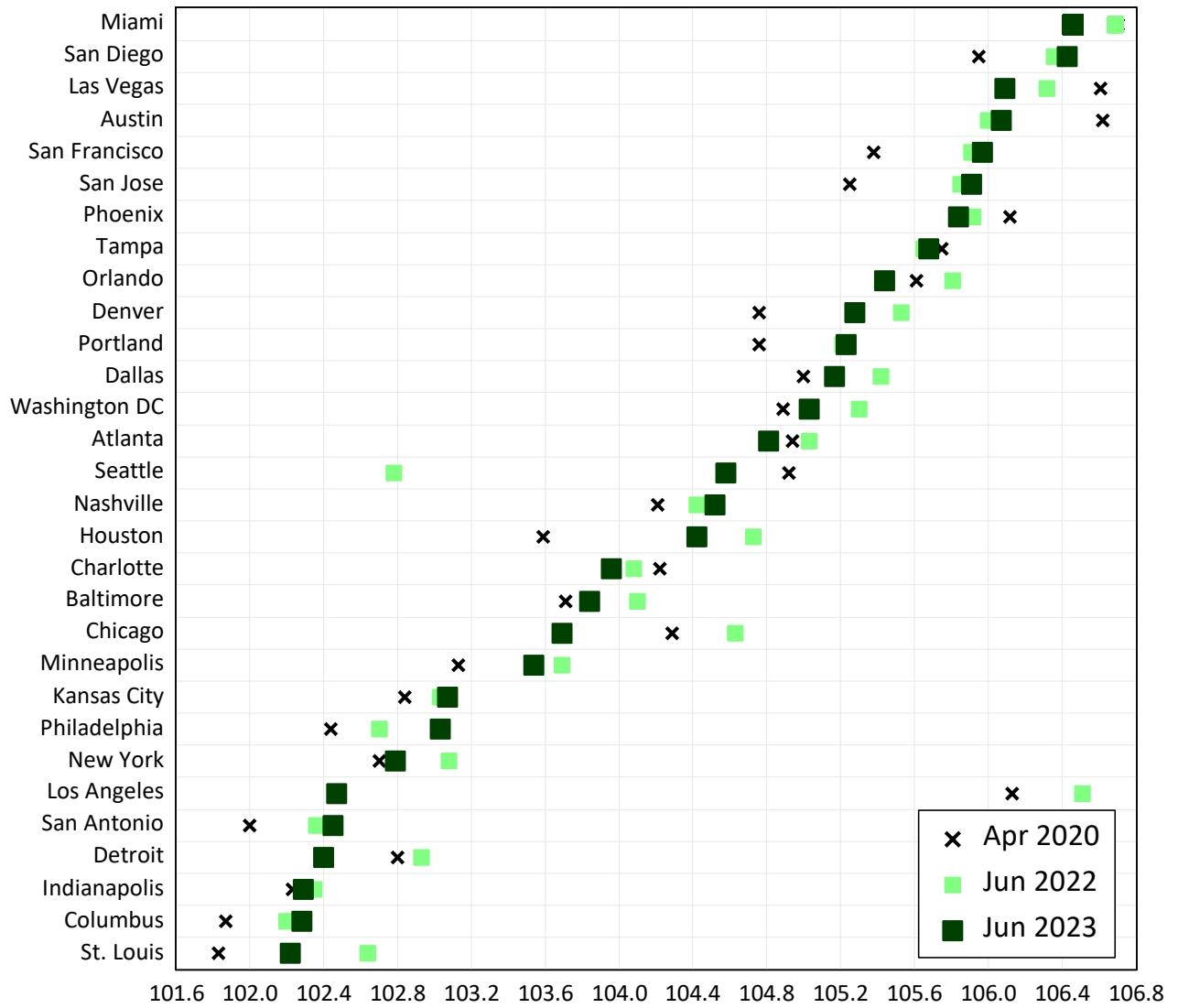


Figure 8. Microbusiness Engagement Index, Selected 30 Metros, April 2020, June 2022, and June 2023

