In July 2021, the Anderson Forecast, in partnership with GoDaddy Inc., first published a new index for the formation, growth, and dynamics of online microbusinesses using data provided by GoDaddy.\(^1\) We call it the Microbusiness Activity Index (MAI). Online microbusinesses are defined as small businesses with an online presence. We find the evidence that microbusiness formation and growth may boost local economic activity. For example, each additional 1 unit gain in the MAI is associated with a 0.1 percentage point decline of the unemployment rate. The Forecast subsequently publishes updated index and report every quarter.

This report is the second update and contains data up to December 2021 for the nation, states, metros, and counties in the U.S. The activity index for microbusinesses in the U.S. (the blue line in Figure 1) increased from 100.3 in September to 102.1 in December. Two possible reasons could explain this increase in the online microbusiness index. First, overall U.S. economic growth accelerated in Q4. U.S. quarterly GDP growth in 2021 was 6.3% in Q1, 6.7% in Q2, 2.3% in Q3, and 6.9% in Q4. The level of the microbusiness index seems to be moving in the same direction as GDP growth (Figure 1A). Note that in our first report in July 2021, “What Drives Microbusiness Formation and Growth?”, we document evidence of correlations between the macroeconomy and microbusinesses. Second, there is seasonality in online activity. When there are a sufficient number of observations, we plan to release a seasonally adjusted index.

Figure 1. Microbusiness Activity and Sub-Indices Time Series, Even-Weight Index, U.S.

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\(^1\) See https://www.anderson.ucla.edu/about/centers/ucla-anderson-forecast/projects-and-partnerships/godaddy
The Microbusiness Activity Index is decomposed into three components: (1) *Infrastructure* (black line) includes human capital and digital infrastructure, e.g. broadband and computer access. These are long-term factors, which do not change from one quarter to the next. (2) *Participation* (green line) includes the density and growth rate of online microbusinesses and online microbusiness owners. We can see that the participation index declined from the peak of 101.32 in January to 100.36 in September and slightly increased to 100.44 in December. This is consistent with the trend that the boom in new small business creation (in response to the pandemic) has cooled down in the later months of 2021. (3) *Engagement* (red line) includes a variety of measures of online and website engagement. The engagement index increased notably from 99.86 in September to 105.85 in December. As mentioned earlier, this could be driven by both general economic activity and seasonal patterns in online engagement. Over time, as we gather more times series data, we will be more certain about the role of seasonality in the index fluctuations.

Figure 2 shows the level of the Microbusiness Activity Index by state in December 2021. The darker the green color, the higher the activity index. Colorado (106.3), New Hampshire (106.3), and Maryland (104.9) had the highest levels of the activity index. In contrast, Arkansas (97.9), Mississippi (97.8), and West Virginia (96.7) had the lowest levels of the activity index. Figure 3 shows the changes in the Microbusiness Activity Index by state from December 2020 to December 2021. The darker the blue color, the larger the increase. We can see Vermont (+3.24), South Carolina (+2.95), New Hampshire (+2.94), Tennessee (+2.85), Wisconsin (+2.81), and Indiana (+2.74) experienced higher growth in the index over the past year. On the other hand, Wyoming (+1.47), South Dakota (+1.35), California (+1.31), Illinois (+1.21), and Washington DC (-3.54) experienced smaller or negative growth.
Figure 2. Microbusiness Activity Index by State, December 2021

Figure 3. Microbusiness Activity Index Changes by State, December 2020 to December 2021
Figure 4 shows the Microbusiness Activity Index by county in December 2021. The blue colors mean higher index values while red colors mean lower index values. By and large, the variation across counties is similar to the variation we saw in prior months. Coastal regions and major cities have higher values of the online microbusiness index, while inland and rural regions have lower values. San Francisco (116.6), Falls Church, VA (116.1) and Arlington County, VA (115.8) have the highest values mostly due to their exceptional values for the infrastructure index (which includes a measure of human capital). Ford County, IL has a very high value (136) of the engagement index. Lawrence County (111), KY, Sheridan County (109.4), WY, and Union County (109.3), SD have very high values of the participation index.

Figure 4. Microbusiness Activity Index by County, December 2021

Figure 5 shows the activity index for 30 selected major metros (Metropolitan Statistical Areas) in December 2020 and 2021. San Jose (Silicon Valley) had the highest activity index value (114.4) in December 2021, followed by Denver (111.1), Washington DC (111.1), San Diego (110), and Raleigh (110.1). On the other end, Houston (105.7), Las Vegas (105.3), and San Antonio (103.7) had the lowest activity values. Over the past year, San Jose, San Antonio, Nashville, and Raleigh have experienced the largest increases in the value of the activity index.

Figure 5. Activity Index for Major Metros, December 2020-2021

In terms of the participation index in Figure 6, Phoenix (107.2) had the highest value in December 2021, followed by Miami (106.7), Los Angeles (106.7), San Diego (106.4), and Las Vegas (105.9). Over the past year, Phoenix (+0.87), Kansas City (+0.42), and Nashville (+0.28) have experienced the largest increases in
the participation index, while Washington DC (-0.74), Chicago (-0.76), and Seattle (-1.63) have seen the deepest declines.

In terms of the engagement index in Figure 7, San Jose (113.9) had the highest value in December 2021, followed by St. Louis (107.2), Indianapolis (107.1), Minneapolis (106.3), and Detroit (106.1). Over the past year, Seattle (+10.1), San Jose (+9.6), and San Antonio (+9.5) have experienced the largest increases in the engagement index value.

**Figure 5. Microbusiness Activity Index, Selected 30 Metros, Apr. 2020, Dec. 2020, and Dec. 2021**
Figure 6. Microbusiness Participation Index, Selected 30 Metros, Apr. 2020, Dec. 2020, and Dec. 2021
Figure 7. Microbusiness Engagement Index, Selected 30 Metros, Apr. 2020, Dec. 2020, and Dec. 2021