What is Venture Forward?

This multiyear study by GoDaddy measures the impact of microbusinesses across the U.S. Our results reveal the outsized economic impact of everyday entrepreneurs and lay the groundwork for policy makers and elected officials to build stronger, more inclusive local economies.

How does GoDaddy define the term "microbusiness"?

In this context, the term microbusiness refers to a discrete domain name with an active website. This can be a company, non-profit, cause, or idea and may include services like email, payments, or security. Many GoDaddy customers have more than one microbusiness. We estimate there are around 45 million microbusinesses in the U.S., including those that are not GoDaddy customers. Our surveys show that about half of all microbusinesses are run by solopreneurs and around 90% have 10 or fewer employees.

How are microbusinesses different from small businesses?

The distinguishing characteristic of a microbusiness is a website. Some small businesses with websites are included in our count of microbusinesses. But our data set also includes many businesses that operate online only, that are side gigs for their owners, or that have never registered with a government entity, and thus aren't included in official measures of small businesses.

How are microbusinesses tied to a place?

Each microbusiness is associated with a zip code geocoded by GoDaddy to its domain name. This data is used to analyze microbusiness density by zip codes, county, and city region. In all, Venture Forward looked at data from 30,000+ zip codes, 3,000+ counties and 900+ city regions (both metropolitans and micropolitans).

GoDaddy used several signals that, when considered jointly, clearly distinguished one anonymized microbusiness's performance from another and we applied that to an internal database of 20 million microbusinesses and appended the associated zip codes. This resulted in a raw number of microbusinesses only, with no PII or domain name, organized by zip code. We worked with GoDaddy legal and privacy teams to confirm that the process was sound end-to-end and protected customer data and PII.

What data and dates does the research span?

The data includes a variety of variables from several sources: *Economic Innovation Group*'s Distressed Community Index is transformed into a prosperity and recovery score; demographic and several economic variables are derived from the *American Community Survey*, *Bureau of Labor Statistics*, and *Business Patterns* data sources all housed with the Census Bureau; microbusiness information is derived from GoDaddy proprietary data. The research spans January 2018 - present.

How does COVID-19 factor into this data?

Our team of academic researchers and data scientists continues to monitor and update our data and analysis, including the economic impact of COVID-19. So far,we've found that microbusinesses have played a key role in economic resiliency. Read more on our findings here.

How is prosperity score measured?

To measure economic prosperity, we modified *Economic Innovation Group's* (EIG) Distressed Community Index, inverting it to focus on prosperity rather than distress on a range of 0 - 100.

This measure is constructed from seven annually-updated metrics: (1) percent of adults without a high school diploma (or equivalent); (2) housing vacancy rate; (3) percent of adults age 25-64 not in the workforce; (4) poverty rate; (5) median household income as a ratio of state median household income; (6) percent change in the number of jobs; and (7) percent change in the number of business establishments.

What outside experts did GoDaddy work with for this study?

GoDaddy partnered with researchers from the University of Iowa, Arizona State University, and UCLA Anderson Forecast to conduct this study. If you are interested in partnering with Venture Forward, we would love to hear from you at ventureforward@godaddy.com.

Will you share this data?

Yes, you can <u>download the data sets</u> by county and by CBSA/city region, as well as the definitions for all variables.

What was the methodology for this study?

The research team used microbusiness density (the number of microbusinesses per 100 people in a geographical region), and then a subset density of highly active microbusinesses, to model effects on economic outcomes like regional prosperity scores, change in annual household median income and recovery from the Great Recession, and unemployment at the county, city region, and zip code levels. These predictive, multivariate regression models controlled for many additional variables including broadband subscriptions, educational levels, age cohorts, demographics, population and occupational data. More details can be found in the Venture Forward white paper and executive summary.

What were the specific statistical models used and how should they be interpreted?

The data science and academic teams across GoDaddy, University of Iowa and Arizona State University used a two-step multivariate regression model to isolate the effect of microbusinesses holding other factors constant to properly compare two different communities at zip, county or CBSA/City region level.

Specifically the two-stage model where small business density, median household income and the percent of the population with broadband subscriptions are used to predict the density of microbusinesses per county. Controlling for these factors in the first stage, we modeled the effect of microbusinesses on economic prosperity in the second stage. After stripping out the influence of small business, median income, and broadband in the second stage, the relationship between microbusinesses and economic prosperity in fact becomes stronger.

In the first stage (first model), small business, median income, and broadband are included with a number of demographic and industry variables to predict the density of microbusinesses per county. In the second stage, the density of microbusinesses per county is used to predict the prosperity score, and while the industry and demographic variables are included in the second model, small business, median income, and broadband are left out of the second model.

Using data from January 2018 to June 2020 the team explored relationships between microbusiness density and county-level labor market indicators,

including employment and unemployment rates. The team found evidence of causal relationships — that is, evidence suggesting more microbusinesses cause improved labor market conditions, controlling for a variety of other factors.

What is microbusiness activity?

In addition to measuring the density of microbusinesses, we differentiate their distribution and outcomes by the level of activity. Activity is measured by microbusiness age, demand (how busy is the microbusiness in terms of traffic and economic footprint with commercial data?), by connection (how networked is the microbusiness across the internet, both in links and out-links?), and by breadth (how built-out is the microbusiness? Have there been upgrades, downgrades or products added or subtracted?). Cluster analysis was used to group microbusinesses into four distinct clusters of low activity, low-moderate activity, high activity and very high activity. Together these three dimensions characterize the level of microbusiness activity.

Categorizing activity included operationalization of age, demand, connection and breadth, specifically the following inputs:

- Modeled site traffic estimation
- Modeled economic size/relevance
- # inbound links to the microbusiness's website
- # outbound links from the microbusiness's website
- Age of the microbusiness
- Count of digital products used to build the microbusiness's digital presence (and change in count of products over time)

How were outliers in the data treated?

Certain zip codes with very few people and very high microbusiness density scores came up as outliers. Because they were not typical commercial microbusinesses focused on in this study, the decision was made to exclude outlier cases and cap zip codes at an upper level – to prevent sparsely population zip codes from dominating measures of central tendency. The omitted cases are less than 1/2 of 1%. The team replicated our models with and without these outlier zip codes, replicating analyses while limiting microbusiness density to a max value of 100 microbusinesses per 100

people, and also while allowing it to reach its maximum. All the major results held, so no bias was found in excluding the outliers. The decision to exclude is for the sake of visualizations and interpretations.

Outliers in income figures present their own unique set of considerations. Since outliers can strongly skew all results when they are especially extreme, the average is affected. Because of this, we measure "median" household income in Venture Forward, not mean income.

What affects the growth of microbusinesses?

GoDaddy found that there were five statistically significant variables that affect the growth of microbusinesses across city regions based on their percentage in a community. These include:

- Inclusive broadband subscriptions (% of population with broadband access, among those with \$20k household income or less; broadband defined as high-speed internet and mobile)
- 2. Diversity (Hispanic and foreign-born)
- 3. Working age population (25-44)
- 4. Education level (college or higher)
- 5. Percentage of IT jobs

These data points can be explored further <u>here</u>.

What economic outcomes do microbusinesses affect?

GoDaddy found that cities and metros with more microbusiness, see a rise in:

- 1. Economic prosperity
- 2. Lower unemployment
- 3. Stronger recession recovery
- 4. Growth in annual household median income

How can I get in touch with you to learn more?

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