

Alternative and High-Frequency Data Is Valuable in Tracking Economic Recovery

By Erin McLaughlin



t's no longer necessary to wait for a monthly jobs report to see how the economy is recovering. As we emerge from this unusual recession, there are new metrics—resulting from the common use of high-frequency and “alternative” data.

The pandemic-caused recession, which included the worst ever U.S. gross domestic product drop, was unique in many ways—but particularly regarding how human (i.e., consumer) behavior was impacted. Economic shifts were caused by the course of the virus and people’s reaction to it, often due to government restrictions on business activities. Now that we are recovering, analysts are tracking data to see how many behavioral changes made during the pandemic will be long lasting, including those related to working from home, connecting virtually, and even shopping online.

Human behavior and patterns inform consumer spending, tax collection, infrastructure needs, and capital spending. The course of the virus predicted the path of the economy. The question now is, post-pandemic, will there be lasting behavioral and consumer changes that will result in changes to the built environment?

To answer this and other questions, analysts are looking increasingly at data resulting from high-frequency and alternative metrics. Data is generally considered high frequency if it comes out more than monthly; and sources can come from both the public and private sectors. In previous recessions, there was not the proliferation of smartphones, sensors, and connectivity. This time around, economists from academia, Wall Street, and the Federal Reserve have additional indices to inform analysis, investment, and even public policy impacting real estate and infrastructure investment decisions.

Considered timelier and more accurate than traditional data—which often has a lag and requires revisions to surveys—high-frequency data provides

real-time insights. Sources of such data include: internet searches, remote sensors, phone location, and app usage—including map directions, social media posts, satellites, and credit card transactions. Specific examples of high-frequency data include:

- Mobility indices by Google and Apple that show how people are getting around in cities, regions, and countries;
- The OpenTable index, which is popular with analysts who want to understand if people are ready to dine out with strangers in public settings, as well as what types and locations of restaurants are rebounding;
- Credit card transaction data, which can be segmented by what money is being spent on (such as food versus gas, etc.);
- Box office receipts;
- Hotel occupancy data;
- Transportation Security Administration checkpoint data, which is updated daily and provides insight into traveler numbers passing through airport security checkpoints daily—key for understanding if business travel will rebound; and
- Commuter rail data, which is being used particularly by those who want to understand when and by how much office workers will return to central cities.

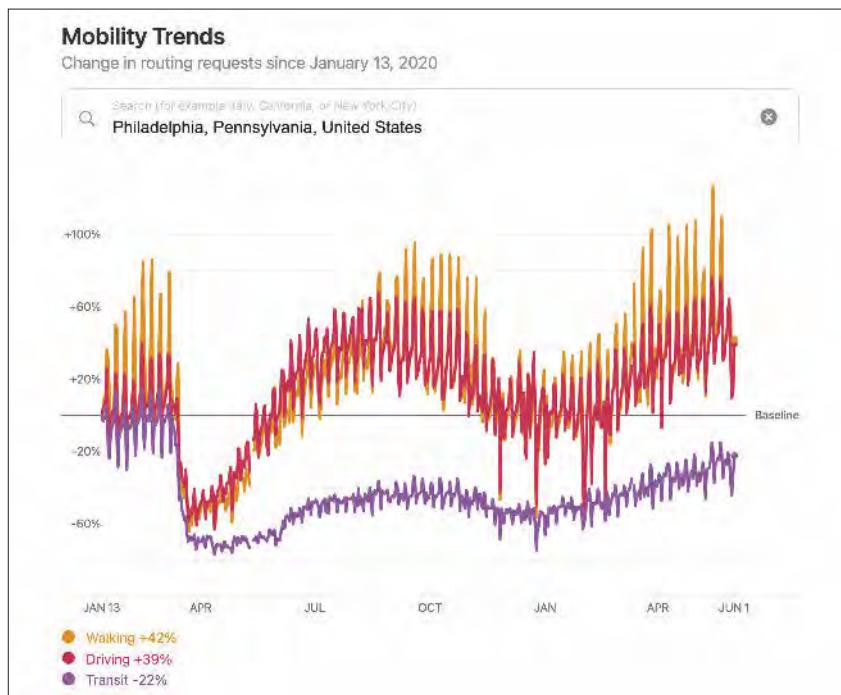
This sort of real-time data will help reveal if there is a new normal and what that is, with many having a particular interest in whether office workers will return to in-person office settings, and at what level, since that is expected to have a significant impact on the built environment. This will be measured largely by transit patterns. Essentially, real-time data will tell us if people are returning to the office, how they are getting there, and if they are frequenting the coffee shops and restaurants in central cities.

If there is a considerable change in office worker behavior, local economies and real estate markets may not recover—particularly in central business districts.

Academic Institutions and Websites:	Data Tracked Includes:
University of Maryland https://data.covid.umd.edu/about/index.html	Information from U.S. Department of Transportation and mobile device location data used to create a social distancing index and estimates of economic impact
Harvard and Brown Universities https://tracktherescovery.org	Consumer spending trends grouped by type, such as groceries, health care, and restaurants, informed by credit card transactions
Carnegie Mellon University https://delphi.cmu.edu/covidcast	A COVID-19 outbreak “nowcast” with data sourced from Google, Facebook, and other social media sources

This real-time data is also informing what is being called “nowcasting” by analysts. In a World Bank blog, which described how the international organization was using high-frequency economic activity—including Google mobility data—to measure the economies in South Asia, nowcasting was defined as a “prediction of the present, the very near future, and the very recent past state of an economic indicator (the term is a contraction of the words ‘now’ and ‘forecasting’).”

Much of this high-frequency and alternative data is free to the public, and several academic institutions (see table opposite) have begun aggregating data from a variety of sources to create interesting and user-friendly dashboards that track human behavior connected to the pandemic and our economic recovery.



Commercial & Residential Real Estate



Health Care & Science+Technology



Intermodal & Logistics



Economic Outlook



Energy & Utilities



Public-Private Partnerships (P3s)

The Private Side is a regular department of Engineering Inc., focusing on the private-sector markets listed above, and information and insights on public-private partnerships and economic data relevant to the industry. For more on these topics, subscribe to ACEC's bimonthly *Private Industry Briefs*: <https://programs.acec.org/industrybrief>.

Erin McLaughlin is ACEC's vice president of private market resources. She can be reached at emclaughlin@acec.org.



U-Haul Migration Trends Show Growth Is in the Sunbelt

Although not a high-frequency data point, U-Haul's annual migration trends report is an interesting one for our industry to track, as engineering firms look to target growing markets. While waiting for U.S. Census Bureau data to confirm population shifts, U-Haul provides us with a list of how states fared, by calculating the net gain of one-way U-Haul trucks entering a state versus leaving that state within a calendar year. U-Haul says this migration trend data is compiled from more than 2 million one-way U-Haul trips annually. ■

U-HAUL 2020 INDEX: TOP 10 STATES BY MIGRATION GROWTH

- | | | | | | | | | | |
|-------------|---------|-----------|--------|-----------|------------|------------|----------|------------------|------------|
| 1 Tennessee | 2 Texas | 3 Florida | 4 Ohio | 5 Arizona | 6 Colorado | 7 Missouri | 8 Nevada | 9 North Carolina | 10 Georgia |
|-------------|---------|-----------|--------|-----------|------------|------------|----------|------------------|------------|

ALLA KOALA/GETTY IMAGES

