



LOCAL ECONOMIC OUTLOOK

Charting economic opportunity for local businesses
in America

OCTOBER 2017



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LOCAL ECONOMIC OUTLOOK OVERVIEW

Yelp’s inaugural Local Economic Outlook is a new program to track which areas of America are ripe for economic opportunity: where small businesses in America have the best chance of success. This program is an ongoing effort to surface insights from Yelp’s deep data stores to help businesses succeed and to arm policymakers with the information they need to make effective change that will boost local economies.

The Outlook centers around a list of 50 cities in the U.S. ranked by economic opportunity to show the current state of affairs in the local American economy. We define “economic opportunity” as the chance businesses have to stay open, and for new businesses to thrive.

In addition, we have produced a list of 50 neighborhoods and 10 business categories that have experienced the largest positive change in economic opportunity over the last year to provide a guide for where to look next.

While the city list is a business’s best bet for where to open now, the neighborhoods and business categories lists show us where local economies are heading.



METHODOLOGY

To compile Yelp's Local Economic Outlook for business health in America, we created an opportunity score based on several factors and ranked cities, neighborhoods, and categories based on that output. We also calculated the change in opportunity rank over the year-earlier period.

Each business in the U.S. that has been reviewed on Yelp was analyzed using a random-forest model to estimate its probability of remaining open for the next three months, for each month over the last two years. The model takes into account the business's location, category, and other factors, mainly based on Yelp-related activity for that business: how many reviews it received, how often people looked at its Yelp page, and so on.

The resulting score for each business was the building block for our rankings at the city, neighborhood, and category levels.



METHODOLOGY

TIME FRAME

The rankings are based on data from the third quarter of 2017: July through September. The rankings by change are based on comparing the third quarter of 2017 data with the third quarter of 2016.

SCOPE

While the random-forest model covered all businesses on Yelp, we built our rankings using the top 10 primary categories on Yelp, according to page views. We chose 50 major U.S. cities -- the Yelp 50 -- based on a combination of factors, including the number of businesses in those cities, and will track economic opportunity in those cities over time.

For the neighborhoods ranking, any community that isn't primarily an airport and has a minimum number of businesses was eligible for inclusion.



RANKING 50 CITIES FOR ECONOMIC OPPORTUNITY

⇒ 1. Charlotte, NC	⇒ 14. Miami, FL	↓ 27. Columbus, OH	↓ 40. Portland, OR	●
⇒ 2. Jacksonville, FL	↑ 15. Phoenix, AZ	↓ 28. Austin, TX	↓ 41. Madison, WI	●
↑ 3. Omaha, NE	⇒ 16. Cincinnati, OH	↓ 29. Honolulu, HI	↓ 42. Rochester, NY	●
↓ 4. Orlando, FL	↓ 17. Atlanta, GA	↑ 30. Cleveland, OH	↑ 43. San Jose, CA	●
↓ 5. Charleston, SC	↓ 18. Nashville, TN	↓ 31. Baltimore, MD	↓ 44. New York, NY	○
↑ 6. Las Vegas, NV	↓ 19. Richmond, VA	↑ 32. Los Angeles, CA	↓ 45. Hartford, CT	○
⇒ 7. Tampa, FL	↑ 20. Saint Louis, MO	⇒ 33. Minneapolis, MN	↓ 46. Providence, RI	○
⇒ 8. Dallas, TX	↑ 21. Tucson, AZ	↓ 34. Buffalo, NY	↑ 47. San Francisco, CA	○
↑ 9. Salt Lake City, UT	↑ 22. San Diego, CA	↓ 35. Pittsburgh, PA	↓ 48. Seattle, WA	○
↓ 10. Houston, TX	↓ 23. Albuquerque, NM	↓ 36. New Orleans, LA	↓ 49. Portland, ME	○
↓ 11. Louisville, KY	⇒ 24. Washington, DC	↑ 37. Sacramento, CA	⇒ 50. Boston, MA	○
↑ 12. Memphis, TN	↑ 25. Milwaukee, WI	↑ 38. Chicago, IL		
↓ 13. Tulsa, OK	⇒ 26. Denver, CO	↓ 39. Philadelphia, PA		

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Change in rank since the same period last year

↑ Increase ↓ Decrease ⇒ No change



RANKING 50 CITIES FOR ECONOMIC OPPORTUNITY

CITY METHODOLOGY

Fifty major cities in America ranked by their current economic opportunity.

To choose 50 cities that represent a broad spectrum of the American economy, we identified the three largest cities as measured by number of Yelp-listed businesses in each of the Census Bureau's nine U.S. regions. We then added 23 of the other largest cities in the country.

Each city includes all cities within 33 miles of it, as measured by the average latitude and longitude of Yelp businesses in each city. So, for instance, San Francisco includes Oakland and Berkeley; Dallas includes Fort Worth. Places within 33 miles of two of our 50 cities are included in the city they're closer to. We'll continue to track these 50 cities -- the Yelp 50 -- for their economic opportunity.



RANKING 50 CITIES FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017

The cities list shows us that economic opportunity is dispersed across America, with both larger and smaller cities ranking on Yelp's list.

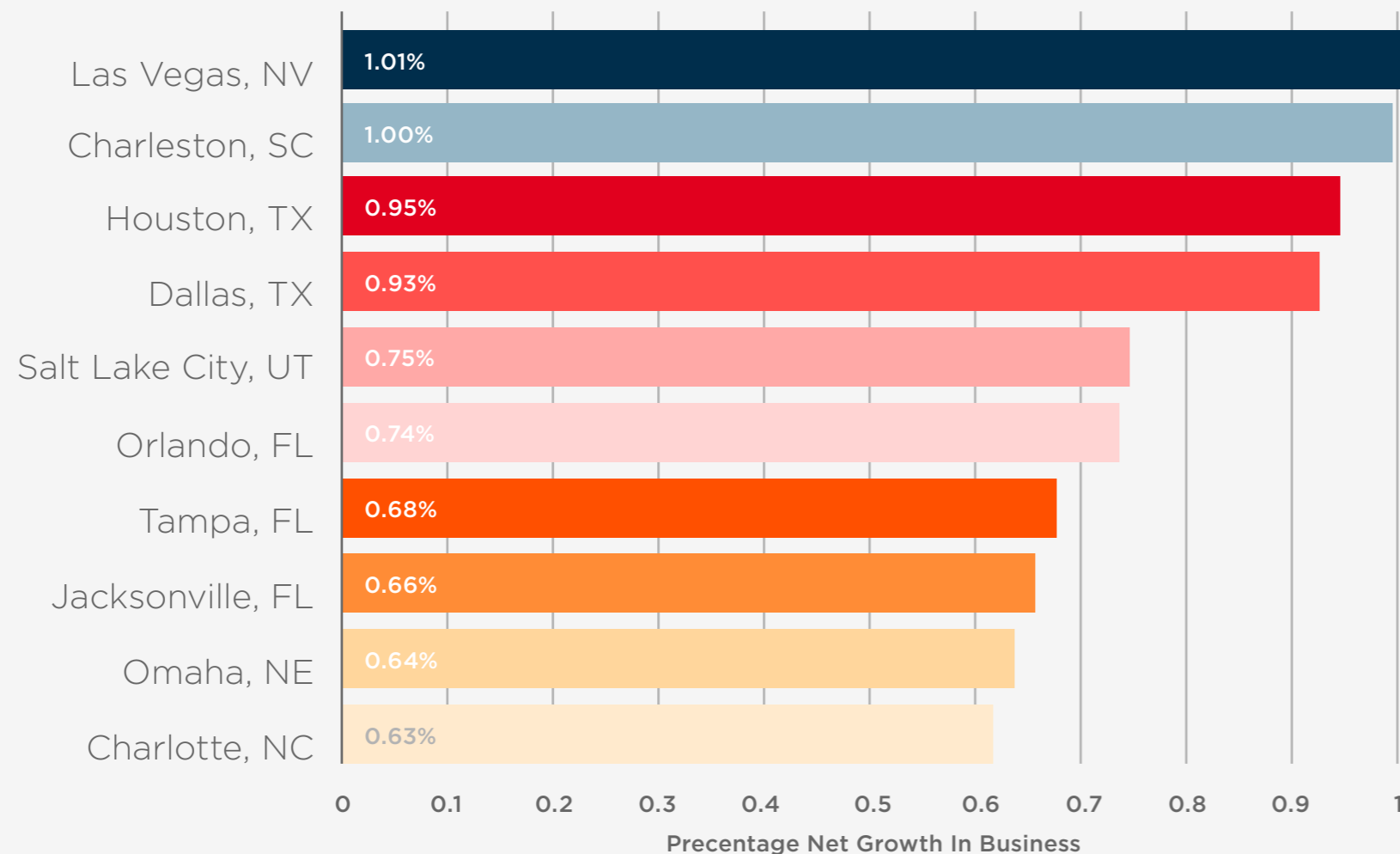
There's particular strength in the southeast, as more Americans move from northeast metro areas to warmer cities.

Some of the country's most expensive cities to live in -- notably New York, San Francisco and Boston -- are among the toughest for new businesses, which face high costs in rent and wages.



RANKING 50 CITIES FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017



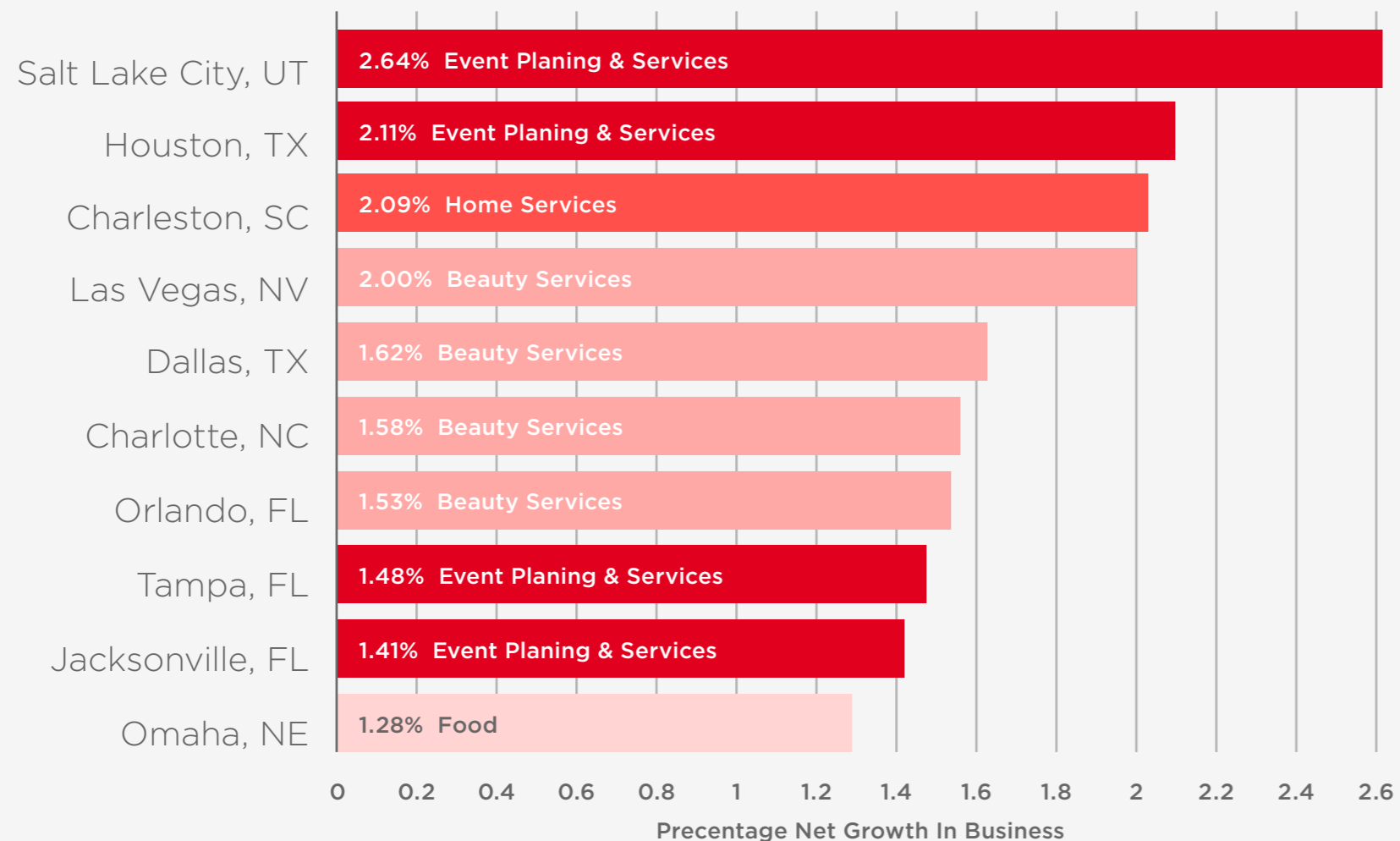
Top 10 Cities for Percentage Net Growth in Number of Businesses / July-September, 2017

Our ranking methodology accounts for many factors, but isolating open and close rates to show net growth in businesses gives an interesting look at which cities on our list are growing the fastest in number of businesses. While coming in at number 10 and 8 respectively for economic opportunity, Houston and Dallas are among the leaders in new business growth.



RANKING 50 CITIES FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017



Drivers of Growth: Fastest Growing Categories in the Top 10 Cities

To dive deeper into what types of businesses are driving the local economic opportunity in our cities list, we pulled out the categories of business in our top 10 cities that have seen the largest increase in business openings for July-September, 2017.

Beauty and event services businesses are leading the way for openings in a majority of the top 10 cities, with service-based categories taking top billing for 9 of the top 10 cities.



TOP 50 MOST IMPROVED NEIGHBORHOODS FOR ECONOMIC OPPORTUNITY

- | | | | |
|--------------------------------------------|-------------------------------------------|-------------------------------------------|---|
| 1. Stonestown (San Francisco, CA) | 18. Financial District (Boston, MA) | 35. Rego Park (New York, NY) | |
| 2. Wauwatosa (Milwaukee, WI) | 19. North San Jose (Santa Clara, CA) | 36. Back Bay (Boston, MA) | ● |
| 3. Ballston (Arlington, VA) | 20. Uptown (Minneapolis, MN) | 37. Bay View (Milwaukee, WI) | ● |
| 4. Midtown (Detroit, MI) | 21. Downtown (Miami, FL) | 38. Hillcrest (San Diego, CA) | ● |
| 5. French Quarter (Charleston, SC) | 22. Russian Hill (San Francisco, CA) | 39. Pacific Beach (San Diego, CA) | ● |
| 6. Admiral (Seattle, WA) | 23. Mission Hills (San Diego, CA) | 40. Allapattah (Miami, FL) | ● |
| 7. Carmel Valley (San Diego, CA) | 24. Uptown (Oakland, CA) | 41. Tobin Hill (San Antonio, TX) | ● |
| 8. Alum Rock/East Foothills (San Jose, CA) | 25. Downtown Berkeley (Berkeley, CA) | 42. Oltorf/East Riverside (Austin, TX) | ○ |
| 9. Silver Lake (Los Angeles, CA) | 26. Andersonville (Chicago, IL) | 43. Echo Park (Los Angeles, CA) | ○ |
| 10. North Buffalo (Buffalo, NY) | 27. Old Town (San Diego, CA) | 44. Highland (Saint Paul, MN) | ○ |
| 11. Bucktown (Chicago, IL) | 28. Near North Side (Chicago, IL) | 45. Elmwood Village (Buffalo, NY) | ○ |
| 12. Toluca Lake (Los Angeles, CA) | 29. Willow Glen (San Jose, CA) | 46. Central West End (Saint Louis, MO) | ○ |
| 13. Middle Village (New York, NY) | 30. U Street Corridor (Washington, DC) | 47. West Lawn (Chicago, IL) | ○ |
| 14. Fox Point (Providence, RI) | 31. Marina/Cow Hollow (San Francisco, CA) | 48. Tarzana (Los Angeles, CA) | ○ |
| 15. Lincoln Park (Chicago, IL) | 32. Pico-Robertson (Los Angeles, CA) | 49. Far West/Northwest Hills (Austin, TX) | ○ |
| 16. Elmwood (Berkeley, CA) | 33. Banker's Hill (San Diego, CA) | 50. Brentwood (Los Angeles, CA) | ○ |
| 17. Century City (Los Angeles, CA) | 34. Mapleleaf (Seattle, WA) | | |



TOP 50 MOST IMPROVED NEIGHBORHOODS FOR ECONOMIC OPPORTUNITY

NEIGHBORHOOD METHODOLOGY

The top 50 neighborhoods in America ranked by change in economic opportunity compared to the same time period a year prior.

Any neighborhood in the country was eligible, not just those in the Yelp 50 cities, so long as they had at least 200 reviewed businesses listed on Yelp in the selected categories, and are not primarily airports.



TOP 50 MOST IMPROVED NEIGHBORHOODS FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017

The most improved neighborhoods include ones that are driving growth in the Yelp 50 -- such as Charleston's French Quarter -- and also neighborhoods from outside the Yelp 50, such as North Buffalo, N.Y.

Neighborhoods in some of the most challenging cities also are bright spots, including Stonestown in San Francisco and several neighborhoods in New York's borough of Queens. These tend to be far from the city center and anchored by major retail centers.

Yelp's data is unique in allowing us to drill down to the neighborhood level, more granular than many official statistics.



TOP 50 MOST IMPROVED NEIGHBORHOODS FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017

Rank in Net Business Growth in the Top 10 Neighborhoods July-September, 2017

For a closer look at the top 10 neighborhoods, we dug into net business growth.

While growth in businesses is one element of economic health, rankings are driven by many other factors. Competition, for example, may decrease economic opportunity, so business closings may provide opportunity to new businesses.

Rank	Neighborhood	City
1	French Quarter	Charleston, SC
2	Midtown	Detroit, MI
3	Alum Rock/East Foothills	San Jose, CA
4	Carmel Valley	San Diego, CA
5	Silver Lake	Los Angeles, CA
6	Ballston	Arlington, VA
7	Wauwatosa	Milwaukee, WI
8	Admiral	Seattle, WA
9	North Buffalo	Buffalo, NY
10	Stonestown	San Francisco, CA



TOP 50 MOST IMPROVED NEIGHBORHOODS FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017

Drivers of Growth: Fastest Growing Categories in the Top 10 Neighborhoods

To narrow in on the top 10 neighborhoods that have shown the most improvement in economic opportunity, there's a wide range of business categories that are driving growth in each, which speaks to the complexity and variety of local communities.

Categories beyond food and nightlife command the lead in openings for most of the top 10 neighborhoods.

Neighborhood	Category
Carmel Valley	Automotive
French Quarter	Home Services
Admiral	Health
Midtown	Shopping
Silver Lake	Active
Alum Rock/East Foothills	Beauty Services
Ballston	Restaurants
Stonestown	Shopping
Wauwatosa	Health
North Buffalo	Nightlife



RANKING 10 MOST IMPROVED BUSINESS CATEGORIES FOR ECONOMIC OPPORTUNITY

- | | |
|------------------------------|------------------|
| 1. Restaurants | 6. Automotive |
| 2. Nightlife | 7. Food |
| 3. Beauty & Spas | 8. Shopping |
| 4. Event Planning & Services | 9. Home Services |
| 5. Health & Medical | 10. Active Life |

BUSINESS CATEGORY METHODOLOGY

The top 10 primary categories on Yelp, according to pageviews, ranked by change in economic opportunity compared to the same time period a year prior.

We will track these same 10 categories over time.



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RANKING 10 MOST IMPROVED BUSINESS CATEGORIES FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017

The restaurant industry remains challenging and competitive, but the outlook for new restaurants is improving relative to openings in other business categories.

Retail has had a tough year, with both general shopping outlets and grocery stores struggling. Event services, encompassing businesses like DJs and party planners, and health-related businesses both are growing categories on Yelp, adding more businesses than many other areas.

This list highlights the breadth of businesses on Yelp, beyond the well-known restaurant, food and nightlife categories.



RANKING 10 MOST IMPROVED BUSINESS CATEGORIES FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017

Top 10 Business Categories Ranked by Change in Net Business Growth / July-September, 2017

Event planning and services is seeing the most growth in businesses. While restaurants are showing the least growth in number of businesses, our ranking shows that this category is also the most improved in economic opportunity compared to this time last year.

So while the economic opportunity is improving faster than other categories, it's still a challenging category for business success.

Rank	Category
1	Event Planning & Services
2	Active Life
3	Home Services
4	Beauty Services
5	Health & Medical
6	Food
7	Automotive
8	Shopping
9	Nightlife
10	Restaurants



RANKING 10 MOST IMPROVED BUSINESS CATEGORIES FOR ECONOMIC OPPORTUNITY

ANALYSIS AND FINDINGS: OCTOBER 2017

Drivers of Growth: Fastest Growing Categories of Restaurants

Within the restaurant category, which comes in at No. 1 for most improved economic opportunity, the sub-categories of specific types of restaurants that are seeing the largest percentage increase in number of businesses as of July-September 2017, relative to a year earlier, give insight into current food trends.

The recent popularity of poke may be helping to fuel the Hawaiian category, with the prevalence of gluten-free and vegan diets also continuing to drive new business growth in the restaurant industry.

Rank	Restaurant Sub-Category
1	Hawaiian
2	Salad
3	Comfort Food
4	Cuban
5	Soup
6	Noodles
7	Spanish
8	Gluten-Free
9	Vegan
10	Tex-Mex



RESEARCH & SUPPORTING MATERIALS

ADDITIONAL CONTEXT FOR THE LOCAL ECONOMIC OUTLOOK

Survival of the Fittest: The Impact of the Minimum Wage on Firm Exit

Professors Michael Luca of Harvard University, and Dara Lee Luca of Mathematica Policy Research

Nowcasting the Local Economy: Using Yelp Data to Measure Economic Activity at Scale

Professor Edward Glaeser of Harvard University, doctoral candidate Hyunjin Kim of Harvard Business School, and Professor Michael Luca of Harvard Business School

U.S. Metro Economies: Past and Future Employment Levels

The United States Conference of Mayors and The Council on Metro Economies and the New American City

The Startup Cartography Project

MIT Lab for Innovation Science and Policy research affiliate Jorge Guzman and Scott Stern

Income Inequality in the United States

Economic Policy Institute

For the latest Yelp research, follow the Yelp Blog: yelpblog.com/section/data



BENEFITS OF USING YELP DATA FOR ECONOMIC RESEARCH

Data from the Bureau of Labor Statistics and the Census Bureau has traditionally been used to understand local economics in America. However, government data can lag by up to two years and does not provide a localized layer beyond ZIP codes and county lines.

There are 3 key benefits of using Yelp data in complement to government data for economic analysis:

1. **Nowcasting:** Real-time data on Yelp, compared to years-old government data, allows us to see the impact of policy and programs immediately.
2. **Granularity:** A view into neighborhoods, cities and even streets on Yelp gives a highly detailed local picture, vs. county or ZIP code only with government data.
3. **Context:** Yelp ratings, reviews, photos, and more from both consumers and businesses allow us to understand why preferences are shifting or businesses are in decline or boom.



FUTURE WORK: SUGGESTIONS FOR EXTENDED RESEARCH

Our hypotheses for why these markets are doing well are broad, and we'd encourage economists to study our data and contribute more ideas.

- Some of the lower-ranking metro areas have more competition, and higher rents and high cost of living.
- Laws and regulations may be friendlier to entrepreneurship and small business owners in markets with more opportunity.
- Populations in the top markets generally are rising faster and are projected to continue to rise at a higher rate than in the other cities.



YELP DATA AVAILABLE FOR ANALYSIS

There are generally four types of Yelp data available to researchers:

- **Search data** What consumers are searching for and where, using search terms and actions taken after those searches
- **Business listing data** Location, categories, phone number, open/close date
- **Review content** Words written in reviews, number of reviews, time of submission, ratings, rating trends over time
- **Engagement data** Business page views, clicks to call, directions, check-ins

These data points can be used for a wide variety of analysis, including rankings and trend analysis. Review previous projects on the [Yelp Blog](#) for an idea of the capabilities of Yelp data analysis.

To begin a conversation about using Yelp data, contact the Yelp press team: press@yelp.com





THANK YOU.