



PLATFORM-ENABLED SMALL BUSINESSES AND THE GEOGRAPHY OF RECOVERY

Evidence of More Inclusive New Enterprise Growth on eBay
than Reflected in Official Statistics

CONTENTS

- 03 INTRODUCTION
- 04 RESEARCH PARAMETERS
- 05 FALLING DYNAMISM AND ENTREPRENEURIAL ACTIVITY
IN THE UNITED STATES
- 06 COUNTY LEVEL ANALYSIS OF US CENSUS BUREAU DATA
ON NEW ESTABLISHMENT FORMATION
- 09 COUNTY LEVEL ANALYSIS OF EBAY COMMERCIAL SELLER
DATA ON NEW ENTERPRISE FORMATION
- 14 CONCLUSIONS AND QUESTIONS FOR FURTHER STUDY
- 16 APPENDIX A: DIGITAL DENSITY TOP 100 COUNTIES

INTRODUCTION

Since 2011, the eBay Public Policy Lab and a team of economists at Sidley Austin LLP¹ have together carried out research into the trade and commercial activities of firms that use the online commerce platform. We have uncovered a fundamental transformation occurring within global commerce driven by the dramatic reduction in the cost of engaging in commerce over distance when a firm is enabled by digital platforms. National and global opportunities have expanded beyond traditional large corporations as even the smallest Internet-enabled enterprises can connect directly with customers across America and around the world.

This report presents new findings coming out of this collaboration, exploring questions related to the apparent decline in new establishment creation in the United States as well as the increasing concentration of establishment growth in an increasingly small number of very large, cosmopolitan counties.

This analysis builds upon a recent report published by the [Economic Innovation Group \(EIG\)](#), “The new Map of Economic Growth and Recovery,” which presented a compelling and admittedly disturbing county-based geographic analysis of US Census Bureau data related to the growth of new establishments in the 2010 - 2014 period.² In a country with over 3,000 counties, the EIG analysis revealed that fully half of the net business establishment growth occurred in just 20 very large counties located in only seven states, more than three quarters of net establishment growth came from counties with 500,000 or more people, that 59 percent of counties (home to nearly one-third of the U.S population) had fewer establishments in 2014 than they did in 2010, and there was no net establishment growth from counties with fewer than 100,000 residents.³ In short, they warn of “an economy veering towards a less broadly dynamic, less entrepreneurial, and more geographically concentrated equilibrium – more reliant than ever on a few high-performing geographies abundant in talent and capital to carry national rates of growth.”⁴

The county-level analysis and framing of US Census Bureau data by EIG focused a new light on major issues related to US economic dynamism, entrepreneurship, and inclusive growth. Those issues will not be answered, explained or rebutted in any single report, especially this one. However, this eBay Public Policy Lab report proposes to contribute some findings that suggest inclusive entrepreneurial growth is possible and indeed happening. Over the same time period as the EIG analysis, our findings show a much more geographically inclusive spread of new enterprise formation on eBay.

¹ Simon Schropp, Andreas Lendle, Olim Latipov, and Kornel Mahlstein.

² Economic Innovation Group (May 2016) “The New Map of Economic Growth and Recovery,” Available at: <http://eig.org/recoverymap>.

³ All population estimates used in conjunction with US Census Bureau and eBay data in this report are based on US Census Bureau County Population Estimates as of July 1, 2010. Available at: <http://census.gov/topics/population.html>.

⁴ Economic Innovation Group (May 2016) “The New Map of Economic Growth and Recovery,” Available at: <http://eig.org/recoverymap>.

ABOUT THE EBAY PUBLIC POLICY LAB

The eBay Public Policy Lab seeks to address the public policy challenges that lie at the nexus of technology and commerce. We conduct innovative research using unique data analytics methodologies and creative insights. We seek to inspire debate at the highest levels of public policy discourse about the future of commerce and how technology can be leveraged to achieve the best possible outcomes for all.

Brian Bieron
Executive Director

Hanne Melin
Director
Global Public Policy

Alan Elias
Senior Manager
Global Public Policy

This report uses eBay’s own propriety data to build on EIG’s propriety analysis of publicly available data provided by the US Census Bureau. This report is the sole product of eBay and is not produced in partnership with EIG.

As opposed to half of net establishment growth clustered in just 20 counties in seven states, on eBay, a similar level of net small business growth in the US was distributed among 75 counties in 24 states. Additionally, nearly three-quarters of the counties in America had net eBay small business growth in the 2010 - 2014 period, as opposed to just 41 percent in the economy overall, and more than 10 percent of the net eBay small business growth came from counties with fewer than 100,000 people as opposed to no net growth from these small population counties as reported by the EIG study.

We believe that the fairly dramatic differences in the county-based results shown by the EIG analysis of US Census Bureau data and this eBay data-based analysis raises interesting questions related to the nature of small business entrepreneurship in the new Internet economy, the extent to which traditional government statistical models properly capture some Internet-enabled micro business growth, and the possibility that entrepreneurial activity in more remote areas might be shifting to use Internet platforms because they better facilitate commerce over distance.

If eBay Commercial Seller data is a proxy for on-demand platform entrepreneurship, then it is possible that subdued economic dynamism and new enterprise creation in the US economy might not be as dramatic as reported, and might not be so concentrated in just the nation's most elite economic hubs. Instead, a meaningful amount of Internet economy entrepreneurship could be occurring through very small Internet-enabled enterprises more widely dispersed and in a more inclusive manner across the nation.

RESEARCH PARAMETERS

The research presented in this report is based on a data set covering commercial activity on eBay by what we call "Commercial Sellers" based in the United States for the period 2010 - 2014. Those are firms with at least \$10,000 USD in annual sales on eBay. We have limited the data on which our research is based to transactions by Commercial Sellers to ensure we properly capture the community of small commercial enterprises on eBay. We would add that in our experience Commercial Sellers are predominately micro enterprises (with less than 10 employees). Following the methodology of the EIG analysis of net change in U.S. business establishments, we look at the county level distribution of the net change in Commercial Sellers over the period 2010 - 2014.

FALLING DYNAMISM AND ENTREPRENEURIAL ACTIVITY IN THE UNITED STATES

There has been widespread empirical study and analysis related to what is often described as the declining dynamism of the US economy. Factors that are commonly considered in the context of economic dynamism are new business formation, the failure rate of firms and the resulting “churn” that is reflected by comparative rates of new firms and failing firms, the survival rate of new firms, and the average age of firms. The decline in the rate of new enterprise formation or start-ups, in particular as revealed by US Census Bureau data, has been pinpointed as the primary factor in the perceived reduction in dynamism. Recent papers by Pugsley and Sahin (2014)⁵, Decker, Haltiwanger, Jarmin and Miranda (2014)⁶, Hathaway and Litan (2014)⁷, Gourio, Messer and Siemer (2014)⁸, and Karahan, Pugsley and Sahin (2015)⁹ all point to this phenomenon as widespread both regionally and across industry sectors. As noted in the *2016 Economic Report of the President*, declining rates of new enterprise formation and a relatively steady rate of business failures has resulted in lower rates of churn and an increasing average age of firms.¹⁰

The apparent decades-long decline in dynamism and new business formation has led to various demographic-based analyses of the phenomenon. Karahan, Pugsley and Sahin (2015)¹¹ show that declines in the growth rate of the labor force underway since the 1970’s and other demographic shifts underway in the US since the 1980’s can explain the gradual decline in the rate of new enterprise formation. Wilmouth (2016) reports that “Millennials” appear to have a meaningfully lower rate of self-employment than Generation X or Baby Boomers, reporting that less than 2 percent of Millennials reported self-employment in 2014, compared with 7.6 percent for Generation X and 8.3 percent for Baby Boomers.¹² At age 30, Wilmouth notes that less than four percent of Millennials reported self-employment as their primary job, compared to 5.4 percent at that age for Generation Xers and 6.7 percent for Baby Boomers.¹³ Similarly, a Wall Street Journal analysis of Federal Reserve data found that the share of households headed by someone under 30 with a stake in or ownership of a private business has fallen from over 10 percent in 1989 to 3.6 percent in 2013.¹⁴

⁵ Pugsley, B.W., and A. Sahin (2014): “Grown-up business cycles,” *FRB of New York Staff Report*, (707).

⁶ Decker, R., J. Haltiwanger, R. S. Jarmin, and J. Miranda (2014): “The Role of Entrepreneurship in US Job Creation and Economic Dynamism,” *The Journal of Economic Perspectives*, 28(3), 3-24.

⁷ Hathaway, I., and R. E. Litan (2014): “Declining Business Dynamism in the United States: A Look at States and Metros,” mimeo, Brookings Institution.

⁸ Gourio, F., T. Messer, and M. Siemer (2014): “A Missing Generation of Firms? Aggregate Effects of the Decline in New Business Formation,” mimeo.

⁹ Karahan, F., B. Pugsley, and A. Sahin (2015): “Understanding the 30-year Decline in Startup Rate: A General Equilibrium Approach,” Working Paper.

¹⁰ Council of Economic Advisors (February 2016) “Economic Report of the President”, (p. 214)
Available at: https://www.whitehouse.gov/sites/default/files/docs/ERP_2016_Book_Complete%20JA.pdf.

¹¹ Karahan, F., B. Pugsley, and A. Sahin (2015): “Understanding the 30-year Decline in Startup Rate: A General Equilibrium Approach,” Working Paper.

¹² Wilmouth, Daniel (February 4, 2016) “The Missing Millennial Entrepreneurs,” U.S. Small Business Administration: Office of Advocacy Economic Research Series.
Available at: https://www.sba.gov/sites/default/files/advocacy/Millennial_IB.pdf.

¹³ Wilmouth, Daniel (February 4, 2016) “The Missing Millennial Entrepreneurs,” U.S. Small Business Administration: Office of Advocacy Economic Research Series.
Available at: https://www.sba.gov/sites/default/files/advocacy/Millennial_IB.pdf.

¹⁴ Ruth Simon and Caelainn Barr (January 2, 2015) “Endangered Species: Young U.S. Entrepreneurs,” *The Wall Street Journal*.

COUNTY LEVEL ANALYSIS OF US CENSUS BUREAU DATA ON NEW ESTABLISHMENT FORMATION

The EIG, through their report “The New Map of Economic Growth and Recovery” (2016)¹⁵, has added valuable time series and county-by-county analysis of new establishment data from the US Census Bureau to the discussion surrounding economic dynamism in the United States. In this report, they examined the geographic distribution of the net growth in business establishments during the first five years of the three most recent economic recoveries in the United States. The years covered in the context of these three economic recoveries were 1992 - 1996, 2002 - 2006, and 2010 - 2014. The EIG report defines establishments as, “single physical locations – with employees and owned by firms – where business is conducted or services and operations are performed.”¹⁶ For the purposes of this paper, we will be focusing on the geographic distribution of the net growth in establishments.

Overall, EIG uncovered a trend over the three economic recovery periods whereby net establishment growth has receded to a fewer number of counties with larger populations. In the most recent recovery time period, 2010 - 2014, nearly six out of ten counties in the United States, a nation of over 3,000 counties, experienced a negative net change in businesses establishments. Population-wise, this means that almost one-third of the U.S. population lived in counties that had fewer establishments in 2014 than they did in 2010. Both these figures have dramatically increased over the previous five-year recovery time periods. For the 2002 - 2006 recovery time period, 37 percent of counties had a negative net change in establishments. The figure stood at 17 percent during the 1992 - 1996 recovery time period and these counties represented only 14 percent of the population.

Additionally, a highly select number of larger and more urban counties emerged as home to an increasingly larger share of net establishment growth, and when taken together emerge as the center of gravity for the most recent economic recovery. A stark sense of the apparent geographic consolidation of economic dynamism and new establishment development is provided by the fact that just 20 large cosmopolitan counties produced half of the net increase in business establishments across the United States from 2010 - 2014 (See **Figure 1.1** on [page 7](#)). These counties included and surrounded large urban centers such as Los Angeles, Miami, New York, and Dallas. The 20 counties were located in just seven states and together represented 17 percent of the U.S. population. In terms of population ranking, this list includes the top ten in the United States with the remaining counties ranging from 15th to 73rd most populous.

¹⁵ Economic Innovation Group (May 2016) “The New Map of Economic Growth and Recovery,” Available at: <http://eig.org/recoverymap>.

¹⁶ Economic Innovation Group (May 2016) “The New Map of Economic Growth and Recovery,” Available at: <http://eig.org/recoverymap>.

Figure 1.1

EIG REPORT: 20 COUNTIES IN THE US GENERATED HALF OF NET ESTABLISHMENT GROWTH (2010 - 2014)

Note: Ranking is based on the increase in net establishment growth.

RANK	COUNTY	STATE	METRO AREA	POPULATION RANK	RANK	COUNTY	STATE	METRO AREA	POPULATION RANK
1	Los Angeles County	CA	Los Angeles	1	11	Maricopa County	AZ	Phoenix	4
2	Miami-Dade County	FL	Miami	8	12	Cook County	IL	Chicago	2
3	Kings County	NY	New York	7	13	Santa Clara County	CA	San Jose	17
4	Harris County	TX	Houston	3	14	Collin County	TX	Dallas	73
5	Orange County	CA	Los Angeles	6	15	Orange County	FL	Orlando	35
6	Queens County	NY	New York	10	16	Tarrant County	TX	Dallas	15
7	San Diego County	CA	San Diego	5	17	San Francisco County	CA	San Francisco	67
8	Travis County	TX	Austin	39	18	Clark County	NV	Las Vegas	13
9	Palm Beach County	FL	Miami	28	19	New York County	NY	New York	20
10	Broward County	FL	Miami	18	20	Dallas County	TX	Dallas	9

Along with providing a snapshot of the level of concentration of net establishment growth in such a small number of very populous counties over the 2010 - 2014 period, the report places this recovery in context of the previous two and finds greater concentration in each successive recovery (See **Figure 1.2** on [page 8](#)). For example, during the 2002 - 2006 recovery time period, the commensurate figure was three times higher: 64 counties, located in 17 states, and representing 27 percent of the population, produced half of the net increase in business establishments. For the 1992 - 1996 recovery time period, the figure was six times higher: 125 counties, located in 37 states, and representing 32 percent of the population, produced half of the net increase in business establishments.

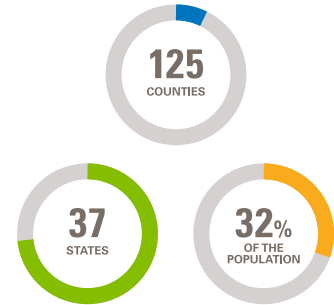
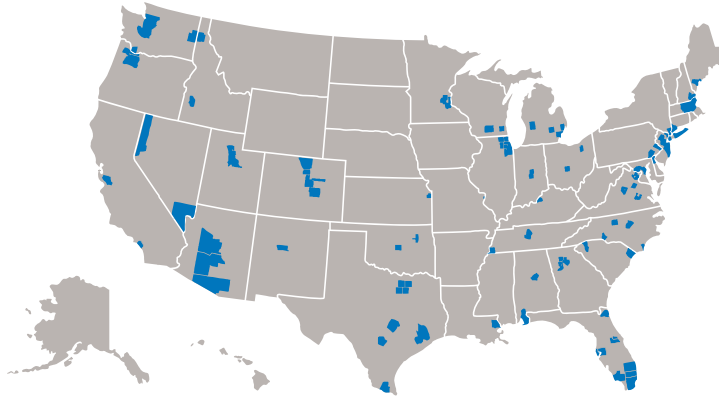
As the geographical distribution of net establishment growth became more concentrated in a smaller number of very large counties, various manifestations of this phenomenon emerged. In the 1992 - 1996 recovery time period, nearly every region of the country contained counties that had a high volume of net establishment growth. The Northeast and Midwest fell off dramatically in the next recovery time period and the counties driving net establishment growth were concentrated in the Southeast, Southwest and Northwest. In the most recent recovery time period, nearly all of the high volume counties were located in the South and, as noted earlier, in only a handful of states. The absence of counties in the vast majority of major urban centers of the Northeast, Midwest, and Northwest is striking.

Figure 1.2

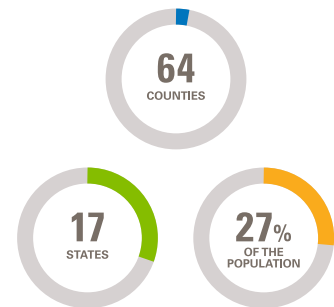
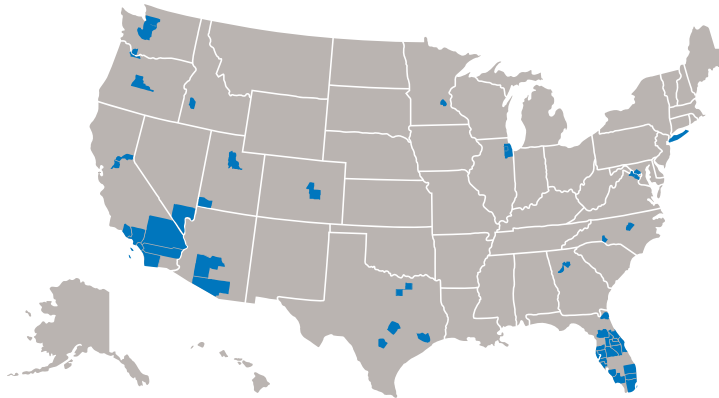
EIG REPORT: MAP OF COUNTIES ACCOUNTING FOR HALF OF RECOVERY-ERA NET ESTABLISHMENT GROWTH¹⁷

¹⁷ Economic Innovation Group (May 2016) "The New Map of Economic Growth and Recovery," (Reproduction of Maps, pg. 11) Available at: <http://eig.org/recoverymap>

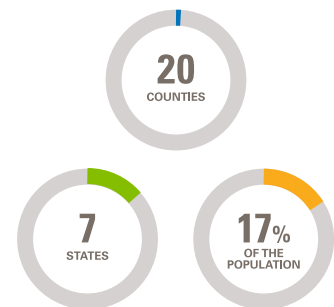
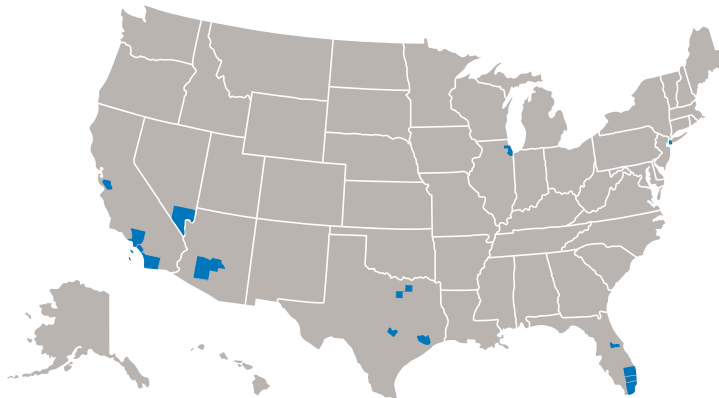
1992 - 1996



2002 - 2006



2010 - 2014



Another trend over the last three economic recovery periods revealed by EIG is a complete drop off of net establishment growth in rural areas and a dramatic shift to the country's largest markets. In the most recent recovery time period, counties with populations exceeding 1 million people were responsible for 58 percent of net establishment growth. When counties that have a population

between 500,000 and one million people are included, this figure rises to 81 percent. Counties with under 100,000 people had no net establishment growth. This is a substantial change from the previous recovery and a complete reversal from 1992 - 1996. In the 2002 - 2006 recovery time period, 51 percent of net establishment growth came from counties with fewer than 500,000 people while those with greater than one million people produced only 29 percent of the net establishment growth. In the 1992 - 1996 recovery time period, 71 percent of net establishment growth came from counties with under 500,000 people and only 13 percent originated in counties with over one million people.

COUNTY LEVEL ANALYSIS OF EBAY COMMERCIAL SELLER DATA ON NEW ENTERPRISE FORMATION

The eBay Public Policy Lab released a report in April 2016 titled the *United States Small Online Business Growth Report*¹⁸, which presented global trade and growth data related to eBay Commercial Sellers across America on a state-by-state level, and included a county level analysis of eBay Commercial Seller activity. To provide a ranking of the counties based on the most active eBay-enabled SME communities, and appropriately account for the wide disparities in population levels that exists among counties across the United States, we analyzed two indicators of small online business activity on a per capita basis within each county: (1) the number of "Commercial Sellers" per 100,000 inhabitants and (2) sales by "Commercial Sellers" per 100,000 inhabitants. We labeled the index based on these two indicators of per capita activity "Digital Density". Measured on this per capita activity basis, we discovered the highest levels of eBay Commercial Seller activity were mixed among a range of county sizes, including some of the super counties highlighted in the EIG report, but also some low population rural and mid-population suburban counties. A list of the eBay Digital Density Top 100 counties in America in 2014 can be found in [Appendix A](#) of this report.

In an effort to compare the economy-wide findings (based on US Census Bureau data) of EIG with eBay data, economists at Sidley Austin LLP studied data covering transactions on the eBay Marketplace from 2010 - 2014.

The economists then looked at which sellers are registered to addresses in the United States and broke them down by county. To ensure the community of small online businesses on eBay was fully captured, the data was limited to transactions by what we call Commercial Sellers, who are those with \$10,000 USD or more in sales annually on the eBay Marketplace. Just as the analysis done by EIG is based on the net growth in the number of establishments in a county as reflected in US Census Bureau data, the eBay Commercial Seller data reflects the net growth of the number of Commercial Sellers in each county. Likewise, the results are reported as percentages of net growth and shares of new enterprises rather than absolute numbers.

¹⁸ eBay (April 2016) "United States Small Online Business Growth Report," Available at: <http://www.ebaymainstreet.com/policy-papers/us-small-online-business-growth-report>.

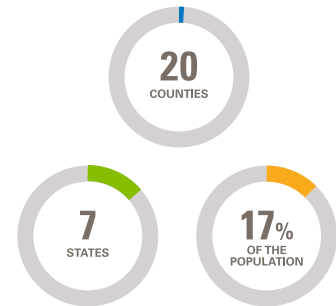
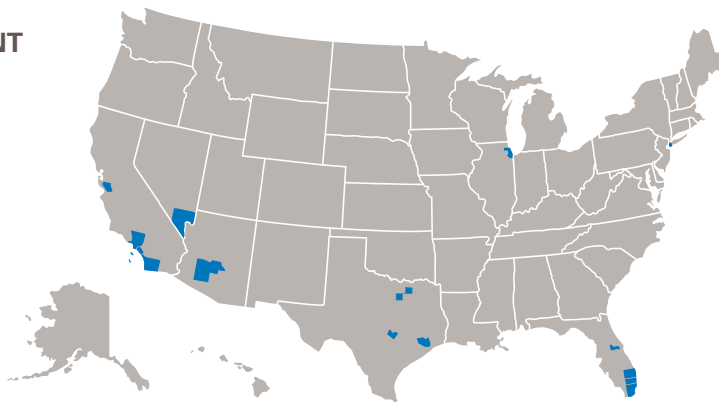
The county-by-county results for net eBay Commercial Seller growth for the 2010 - 2014 time-period reveals a much more geographically inclusive spread of new enterprise formation on eBay compared to establishment creation over the same time period as reported by EIG in the US overall. The side-by-side is striking. As noted above, EIG found that only 20 counties produced half the net increase in businesses establishments in the United States from 2010 - 2014.

These 20 counties were clustered in large metropolitan areas across seven states and represented less than 20 percent of the population. In contrast, half of the net increase in eBay Commercial Sellers from 2010 - 2014 came from 75 counties spread across 24 states and accounted for 36 percent of the US population (See **Figure 2.1**).

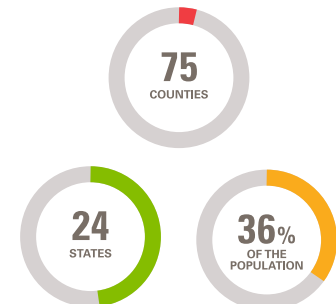
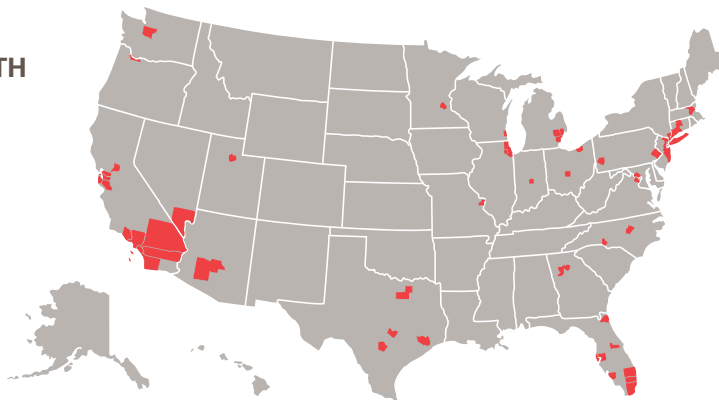
Figure 2.1
MAP OF COUNTIES ACCOUNTING FOR HALF OF RECOVERY-ERA GROWTH (2010 - 2014)

¹⁹ Economic Innovation Group (May 2016) "The New Map of Economic Growth and Recovery," (Reproduction of Maps, pg. 11) Available at: <http://eig.org/recoverymap>.

NET ESTABLISHMENT GROWTH¹⁹



NET EBAY COMMERCIAL SELLER GROWTH

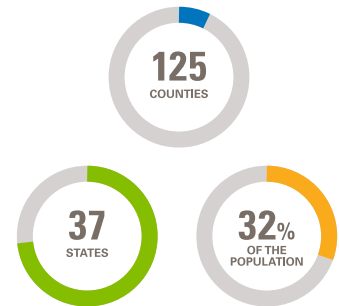
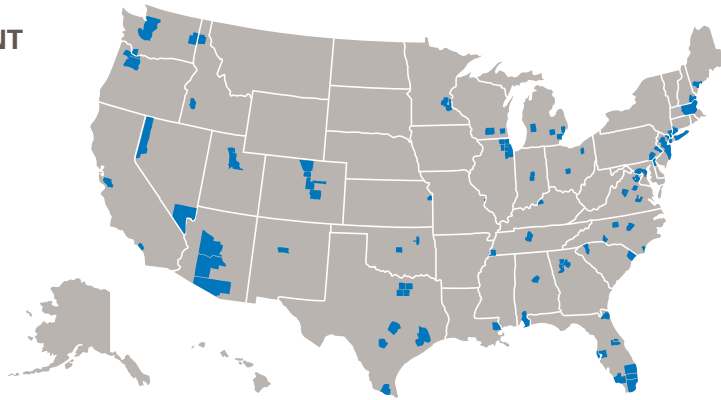


As noted, the EIG analysis of the three recovery periods, 1992 - 1996, 2002 - 2006, and 2010 - 2014, revealed an increasing concentration of net establishment growth over time. The geographic distribution of the 75 counties in the eBay results very much resembles the traditional economy business growth in the previous two economic recovery periods (See **Figure 2.2**).

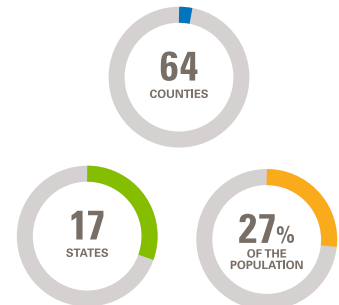
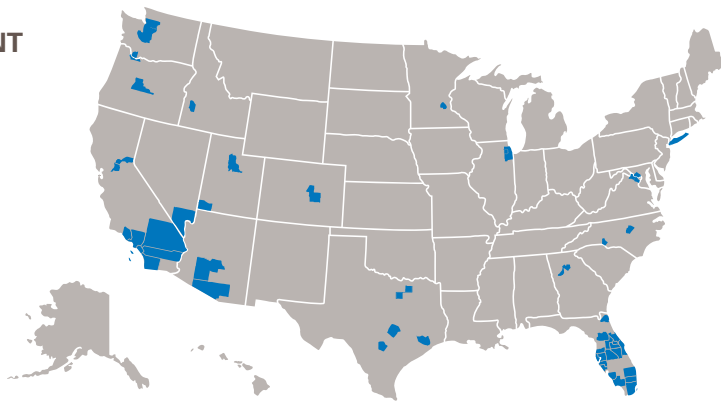
Figure 2.2
MAP OF COUNTIES ACCOUNTING FOR HALF OF RECOVERY-ERA GROWTH

²⁰ Economic Innovation Group (May 2016) "The New Map of Economic Growth and Recovery," (Reproduction of Maps, pg. 11) Available at: <http://eig.org/recoverymap>.
²¹ Economic Innovation Group (May 2016) "The New Map of Economic Growth and Recovery," (Reproduction of Maps, pg. 11) Available at: <http://eig.org/recoverymap>.

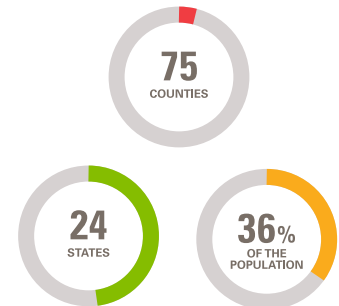
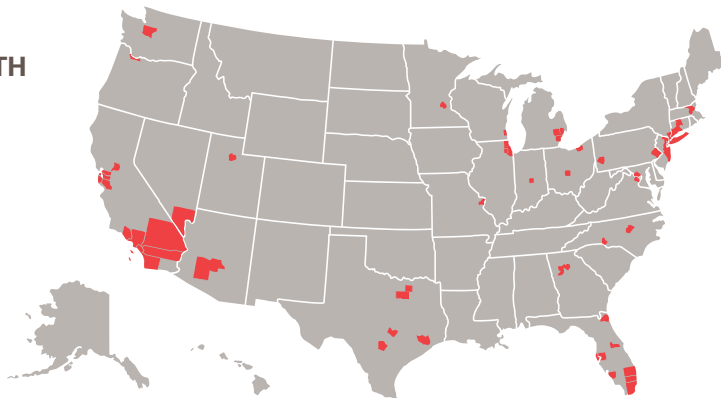
NET ESTABLISHMENT GROWTH (1992 - 1996)²⁰



NET ESTABLISHMENT GROWTH (2002 - 2006)²¹



NET EBAY COMMERCIAL SELLER GROWTH (2010 - 2014)



These top 75 counties based on net eBay Commercial Seller growth include each of the 20 identified in the EIG study, but the remainder extended across the Northeast, Southeast, Midwest and Northwest United States. Each of the top forty most populous counties in America are included in the top 75, including metropolitan areas such as Philadelphia, Cleveland, Indianapolis, St. Louis, Minneapolis, Atlanta, Salt Lake City, Portland and Seattle, with the remaining counties ranging from 42nd to 139th most populous (See **Figure 2.3**).

Figure 2.3

EBAY: 75 COUNTIES IN THE US GENERATED HALF OF THE NET INCREASE IN EBAY COMMERCIAL SELLERS (2010 - 2014)

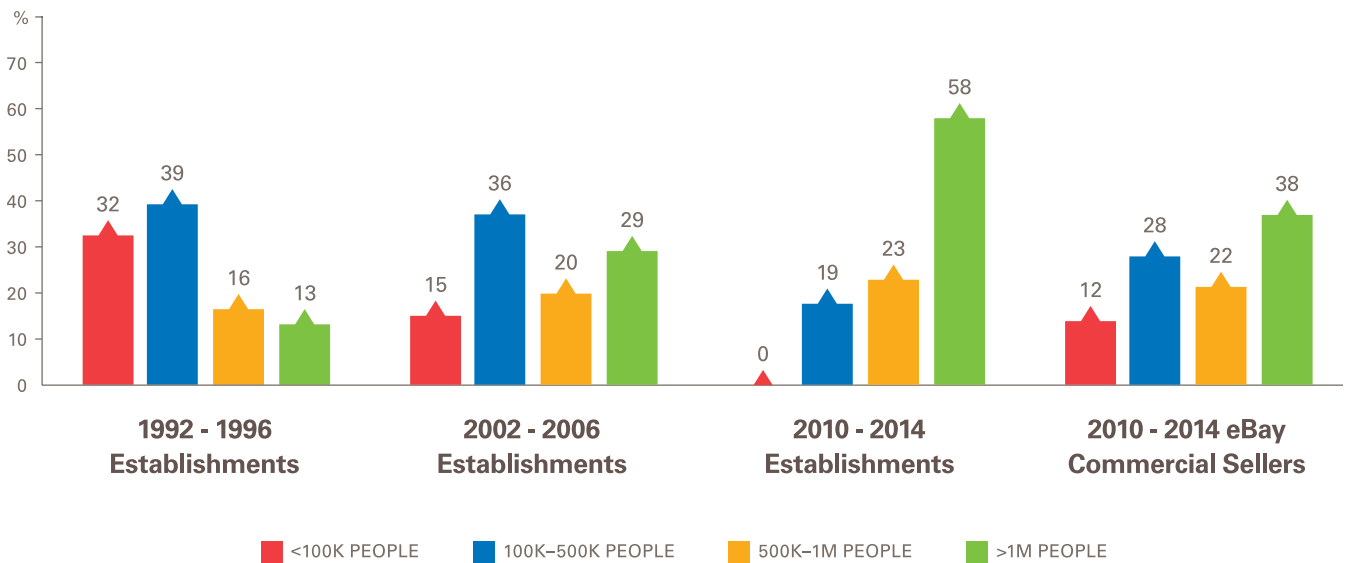
Note: Ranking is based on the increase in net establishment growth.

RANK	COUNTY	STATE	METRO AREA	POPULATION RANK	RANK	COUNTY	STATE	METRO AREA	POPULATION RANK
1	Los Angeles County	CA	Los Angeles	1	39	Middlesex County	MA	Boston	23
2	Orange County	CA	Los Angeles	6	40	Hennepin County	MN	Minneapolis	34
3	Miami-Dade County	FL	Miami	8	41	Fairfax County	VA	Washington, DC	36
4	Kings County	NY	New York	7	42	Contra Costa County	CA	San Francisco	37
5	Cook County	IL	Chicago	2	43	Ventura County	CA	Los Angeles	63
6	Maricopa County	AZ	Phoenix	4	44	Monmouth County	NJ	New York	95
7	Queens County	NY	New York	10	45	Franklin County	OH	Columbus	33
8	San Diego County	CA	San Diego	5	46	Fairfield County	CT	New York	50
9	Broward County	FL	Miami	18	47	Duval County	FL	Jacksonville	59
10	Harris County	TX	Houston	3	48	Collin County	TX	Dallas	73
11	Clark County	NV	Las Vegas	13	49	Alleghany County	PA	Pittsburgh	31
12	San Bernardino County	CA	Los Angeles	12	50	San Francisco County	CA	San Francisco	67
13	Riverside County	CA	Los Angeles	11	51	Fulton County	GA	Atlanta	48
14	New York County	NY	New York	20	52	Montgomery County	MD	Washington, DC	42
15	Orange County	FL	Orlando	35	53	Mecklenburg County	NC	Charlotte	49
16	Santa Clara County	CA	San Jose	17	54	Travis County	TX	Austin	39
17	King County	WA	Seattle	14	55	Multnomah County	OR	Portland	79
18	Dallas County	TX	Dallas	9	56	Wayne County	MI	Detroit	16
19	Nassau County	NY	New York	27	57	Macomb County	MI	Detroit	62
20	Sacramento County	CA	Sacramento	25	58	Hartford County	CT	Hartford	57
21	Suffolk County	NY	New York	24	59	St. Louis County	MO	St. Louis	40
22	Bergen County	NJ	New York	55	60	Bucks County	PA	Philadelphia	99
23	Alameda County	CA	San Francisco	22	61	Ocean County	NJ	Trenton	108
24	Palm Beach County	FL	Miami	28	62	Essex County	NJ	New York	74
25	Gwinnet County	GA	Atlanta	65	63	Lee County	FL	Ft. Myers	101
26	Oakland County	MI	Detroit	32	64	Bronx County	NY	New York	26
27	Hillsborough County	FL	Tampa	30	65	Lake County	IL	Chicago	84
28	Tarrant County	TX	Dallas	15	66	Richmond County	NY	New York	139
29	Philadelphia County	PA	Philadelphia	21	67	Marion County	IN	Indianapolis	56
30	Salt Lake County	UT	Salt Lake City	38	68	Cobb County	GA	Atlanta	86
31	Cuyahoga County	OH	Cleveland	29	69	Milwaukee County	WI	Milwaukee	45
32	Pinellas County	FL	Tampa	53	70	Hudson County	NJ	New York	94
33	Wake County	NC	Raleigh	54	71	Westchester County	NY	New York	44
34	DuPage County	IL	Chicago	52	72	Fresno County	CA	Fresno	46
35	Montgomery County	PA	Philadelphia	70	73	San Mateo County	CA	San Francisco	82
36	Middlesex County	NJ	New York	64	74	Passaic County	NJ	New York	128
37	Bexar County	TX	San Antonio	19	75	Union County	NJ	New York	117
38	New Haven County	CT	New Haven	60					

A further measure of net establishment growth concentration involves the share of 3,143 counties in the United States that experienced this growth in the 2010 - 2014 recovery period. EIG analysis of US Census Bureau data reveals that to be only 41 percent of counties. On the other hand, 71 percent of the counties in the United States saw a net increase in their number of eBay Commercial Sellers, and those counties comprised 95 percent of US population.

Another measure of the county-level geographic spread of net establishment growth in the United States reported by EIG involved the share of growth located in counties of different sizes (See **Figure 2.4**). As opposed to US economy overall, where EIG analysis reports a zero share of net establishment growth in counties of less than 100,000 residents, 12 percent of the nationwide increase in eBay Commercial Sellers came from counties with under 100,000 people, which are often rural counties spread across America. Counties with under 500,000 people produced 40 percent of the net increase in eBay Commercial Sellers compared to just 19 percent of the net increase in establishments according to US Census Bureau data during the same time period. Looking at counties with 500,000 or more people we find they produced 60 percent of the net growth in eBay Commercial Sellers vs. 81 percent of the net establishment growth in the overall economy. Once again, we see these eBay results more in line with that of net establishment growth in the 2002 - 2006 recovery.

Figure 2.4
SHARE OF NET ESTABLISHMENT GROWTH²² AND NET EBAY COMMERCIAL SELLER GROWTH BY COUNTY POPULATION SIZES



²² Economic Innovation Group (May 2016) "The New Map of Economic Growth and Recovery," Available at: <http://eig.org/recoverymap>.

CONCLUSIONS AND QUESTIONS FOR FURTHER STUDY

The county-level analysis of the distribution of net enterprise growth on eBay in the form of Commercial Sellers points toward Internet-enabled small business growth as a force for economic dynamism and inclusive economic growth that is potentially bucking, or even countering, the trends seen in the traditional economy. Where the majority of establishment growth in the overall economy appears to have been concentrated in an increasingly small handful of very large and prosperous urban centers, eBay appears to have allowed micro and small retail businesses in the US between 2010 and 2014 to buck depressed entrepreneurship trends that merged over the past three recoveries.

We believe that the differences in the results in the overall economy based on US Census Bureau data and reported by EIG, and those based on eBay Commercial Seller activity and reported here, raises interesting questions related to the nature of small business entrepreneurship in the new Internet economy, the possibility that traditional government statistical models are missing some Internet-enabled micro business growth, and, the possibility that entrepreneurial growth in more remote areas tends to use Internet platforms because they facilitate remote commerce which is key to expanding market opportunities beyond the immediate localities.

The long-time challenge to traditional economic statistical methods and models posed by independent workers, who can be thought of as individual entrepreneurs and micro businesses, is understood. In their report, “Independent Work: Choice, Necessity and the Gig Economy” (2016), the McKinsey Global Institute (MGI) concluded that independent work is a much bigger phenomenon than official statistics indicate.²³ The *2016 Economic Report of the President* describes “on-demand economy platforms” as a relatively nascent phenomenon that have been the subject of little economic research, and of the entrepreneurial activity going on over the platforms, states that, “many of these activities cannot be isolated in official statistics, and in some cases, may in fact be omitted from these statistics.”²⁴

For example, it is possible that the more geographically dispersed distribution of the net growth in eBay Commercial Sellers as compared to the traditional economic data is primarily a reflection of a measurement failure, where, as noted above, some share of the participants in Internet-enabled like platforms are not counted in the official statistics and therefore are missed in the economic analyses based on those statistics.

²³ McKinsey Global Institute (October 2016) “Independent Work: Choice, Necessity, and The Gig Economy,” Available at: <http://www.mckinsey.com/global-themes/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy>.

²⁴ Council of Economic Advisors (February 2016) “Economic Report of the President,” (p. 242) Available at: https://www.whitehouse.gov/sites/default/files/docs/ERP_2016_Book_Complete%20JA.pdf.

From a county analysis perspective, this phenomenon could be intensified by the well-understood value of global platforms to allow for commerce over great distances by small Internet-enabled enterprises, which could disproportionately attract small business entrepreneurs in smaller and more remote counties to business models that are undercounted.

The combination of the existing scale of independent work, which MGI pegs at 27 percent of the total US workforce, and the certain expansion of the use of on-demand economy platforms, which MGI identifies as being used by just 15 percent of independent workers in the US (although 63 percent of independent workers in the retail sector use a technology platform like eBay or Etsy), will increase the importance of better understanding the impact of platform-enabled entrepreneurs and micro-businesses on measurements of new business formation.²⁵

²⁵ McKinsey Global Institute (October 2016) "Independent Work: Choice, Necessity, and The Gig Economy," Available at: <http://www.mckinsey.com/global-themes/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy>.



APPENDIX A: DIGITAL DENSITY TOP 100 COUNTIES²⁶

²⁶ The Digital Density ranking is based on a score that is a weighted combination of two indicators of small online business activity on a per capita basis within each county: (1) the number of "Commercial Sellers" per 100,000 inhabitants; and (2) sales by "Commercial Sellers" per 100,000 inhabitants. The weighted average puts more emphasis on the sales per small online business, as starting up a business is the first step to selling.

DIGITAL DENSITY TOP 100 COUNTIES

1)	Essex County	Vermont	51)	Douglas County	Nevada
2)	Fulton County	Ohio	52)	Monroe County	Florida
3)	Sarasota County	Florida	53)	San Diego County	California
4)	Rockland County	New York	54)	Camden County	New Jersey
5)	Kings County	New York	55)	Flagler County	Florida
6)	Middlesex County	New Jersey	56)	San Francisco County	California
7)	Casey County	Kentucky	57)	Orange County	Florida
8)	Los Angeles County	California	58)	Hinsdale County	Colorado
9)	Orange County	California	59)	McHenry County	Illinois
10)	Bergen County	New Jersey	60)	Medina County	Ohio
11)	Whatcom County	Washington	61)	Niagara County	New York
12)	Nelson County	North Dakota	62)	Blaine County	Nebraska
13)	New York County	New York	63)	Monroe County	Pennsylvania
14)	Nassau County	New York	64)	Mille Lacs County	Minnesota
15)	Montgomery County	Pennsylvania	65)	Macomb County	Michigan
16)	Broward County	Florida	66)	Clark County	Nevada
17)	Seminole County	Florida	67)	Citrus County	Florida
18)	Clinton County	New York	68)	Suffolk County	New York
19)	Gwinnett County	Georgia	69)	Multnomah County	Oregon
20)	Clackamas County	Oregon	70)	Litchfield County	Connecticut
21)	Falls Church City	Virginia	71)	Lancaster County	Pennsylvania
22)	Taney County	Missouri	72)	Richmond County	New York
23)	Lake County	Illinois	73)	Waukesha County	Wisconsin
24)	Morris County	New Jersey	74)	Racine County	Wisconsin
25)	Miami-Dade County	Florida	75)	Orange County	New York
26)	Lapeer County	Michigan	76)	El Dorado County	California
27)	Monmouth County	New Jersey	77)	Hillsborough County	New Hampshire
28)	Ventura County	California	78)	Washington County	Rhode Island
29)	Bucks County	Pennsylvania	79)	Pembina County	North Dakota
30)	Warren County	New Jersey	80)	Volusia County	Florida
31)	Lake County	Ohio	81)	Haines Borough	Alaska
32)	DuPage County	Illinois	82)	Josephine County	Oregon
33)	Rockingham County	New Hampshire	83)	Rutland County	Vermont
34)	Lewis County	Idaho	84)	Hamilton County	Indiana
35)	Hunterdon County	New Jersey	85)	Washington County	Oregon
36)	Oakland County	Michigan	86)	Union County	Georgia
37)	Pinellas County	Florida	87)	Lincoln County	Oregon
38)	Washington County	Utah	88)	Pasco County	Florida
39)	Worcester County	Maryland	89)	Hernando County	Florida
40)	Bloomfield County	Colorado	90)	Martin County	Florida
41)	Ocean County	New Jersey	91)	Lake County	Florida
42)	Allen County	Indiana	92)	Pike County	Pennsylvania
43)	Carson City	Nevada	93)	Lebanon County	Pennsylvania
44)	Cherokee County	Georgia	94)	Colonial Heights City	Virginia
45)	Santa Clara County	California	95)	Kent County	Rhode Island
46)	Clay County	North Carolina	96)	Ulster County	New York
47)	Palm Beach County	Florida	97)	Luzerne County	Pennsylvania
48)	Cheshire County	New Hampshire	98)	Costilla County	Colorado
49)	Sevier County	Tennessee	99)	Lee County	Florida
50)	Placer County	California	100)	Dawson County	Georgia

