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# Declining Business Dynamism in the United States: A Look at States and Metros

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## Abstract

Business dynamism is the process by which firms continually are born, fail, expand, and contract, as some jobs are created, others are destroyed, and others still are turned over. Research has firmly established that this dynamic process is vital to productivity and sustained economic growth. Entrepreneurs play a critical role in this process, and in net job creation.

But recent research shows that dynamism is slowing down. Business churning and new firm formations have been on a persistent decline during the last few decades, and the pace of net job creation has been subdued. This decline has been documented across a broad range of sectors in the U.S. economy, even in high-tech.

Here, the geographic aspects of business dynamism are analyzed. In particular, we look at how these trends have applied to the states and metropolitan areas throughout the United States. In short, we confirm that the previously documented declines in business dynamism in the U.S. overall are a pervasive force throughout the country geographically.

In fact, we show that dynamism has declined in all fifty states and in all but a handful of the more than three hundred and sixty U.S. metropolitan areas during the last three decades. Moreover, the performance of business dynamism across the states and metros has become increasingly similar over time. In other words, the national decline in business dynamism has been a widely shared experience.

While the reasons explaining this decline are still unknown, if it persists, it implies a continuation of slow growth for the indefinite future, unless for equally unknown reasons or by virtue of entrepreneurship-enhancing policies (such as liberalized entry of high-skilled immigrants), these trends are reversed.

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# National Dynamism

The American economy is in a constant state of churn. Historically one new business is born about every minute, while another one fails every eighty seconds.[1] In 2012, there were 13.4 million private sector jobs created or destroyed each quarter—that's equivalent to one in eight private sector jobs.[2] Despite all of that churning, only 600 thousand net jobs were created each quarter during that same year. That's equal to about half a percent of private employment.

Business dynamism is inherently disruptive; but it is also critical to long-run economic growth. Research has established that this process of "creative destruction" is essential to productivity gains by which more productive firms drive out less productive ones, new entrants disrupt incumbents, and workers are better matched with firms.[3] In other words, a dynamic economy constantly forces labor and capital to be put to better uses.

But recent evidence points to a U.S. economy that has steadily become less dynamic over time. Two measures used to gauge business dynamism are firm entry and job reallocation.[4] As Figure 1 shows, the firm entry rate—or firms less than one year old as a share of all firms—fell by nearly half in the thirty-plus years between 1978 and 2011.

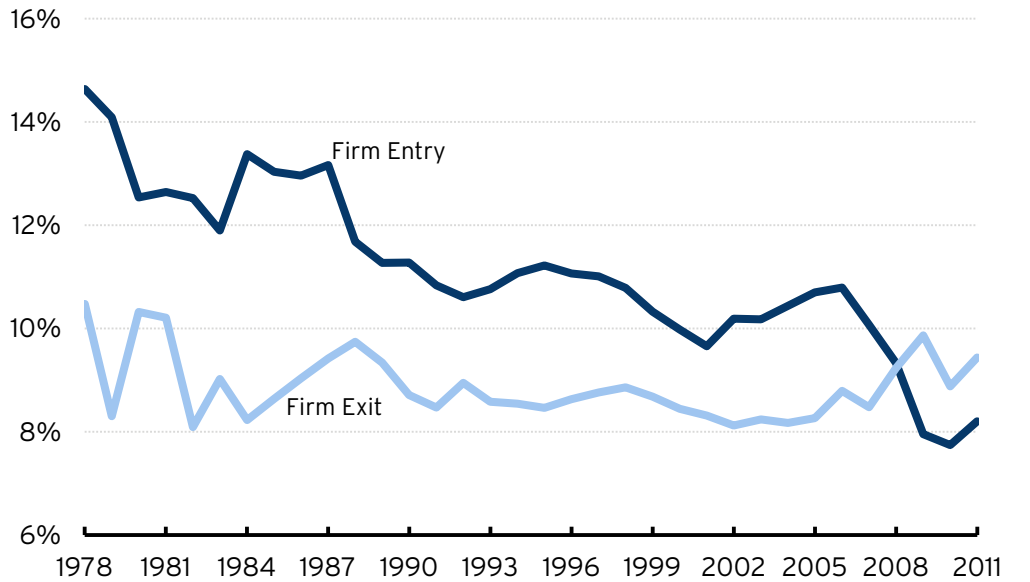
The precipitous drop since 2006 is both noteworthy and disturbing. For context, the rate of firm failures held relatively steady—aside from the uptick during the Great Recession. In other words, the level of business deaths kept growing along with the overall level of businesses in the economy, but the level of business births did not—it held relatively steady before dropping significantly in the recent downturn. In fact, business deaths now exceed business births for the first time in the thirty-plus-year history of our data (See figure A1 at Appendix).

> A dynamic economy constantly forces labor and capital to be put to better uses, but recent evidence points to a U.S. economy that has *steadily become less dynamic over time.*

Figure 1.

The U.S. economy has become less entrepreneurial over time

Firm Entry and Exit Rates in the United States, 1978-2011

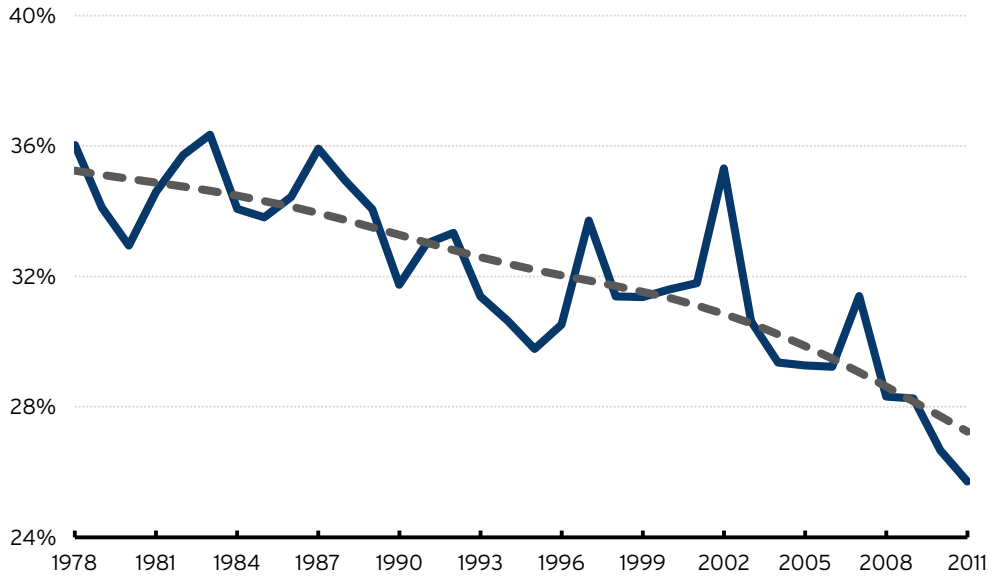



*Source: U.S. Census Bureau, BDS; authors' calculations*

Figure 2.

## Business dynamism has been steadily declining over the last three decades

Job Reallocation Rate and Trend, 1978-2011




*Source: U.S. Census Bureau, BDS; authors' calculations*
*Note: Trend is calculated by applying a Hodrick-Prescott filter with a multiplier of 400*

Figure 2 illustrates that job reallocation—a broad measure of labor market churning resulting from the underlying business dynamism of firm expansions, contractions, births, and closures—has been steadily declining during the last three decades, and appears to have accelerated in the last decade or so. Overall, Figures 1 and 2 illustrate what was stated before—that the economy is engaged in a steady, secular decline in business dynamism.

This leaves the question of whether declining dynamism has been spreading evenly across the economy, or if these economy-wide aggregates are masking underlying structural changes. In forthcoming research, Decker, et al. (2014) use firm-level data to show that declining dynamism is a pervasive force in a broad range of sectors throughout the economy—even after controlling for changes in the underlying composition of firms (age, size, industry).[5] Even a cursory review of broader U.S. data aggregates shows that declining dynamism has reached a broad range of industrial sectors and firm size categories (See figures A2 and A3 at Appendix.

> We would expect to see some regions in decline while others were immune. But, in fact, that is not what the data show.

To advance the conversation, we analyze business dynamism geographically. In particular, we examine whether underlying changes in the geographical composition of the U.S. economy have played a role in declining dynamism. If the decline were partially the result of changes in the geographic composition of the economy, we might expect to see a shift in activity away from more dynamic regions into less dynamic ones and a wide variation in the performance of dynamism across regions. In other words, we would expect to see some regions in decline while others were immune. But, in fact, that is not what the data show.

# Regional Dynamism

Figure 3 shows the relationship between each of our two key measures of business dynamism—firm entry rate and job reallocation rate—in the late 1970s compared with recent years for the 50 U.S. states and 366 metropolitan areas. The same comparison is made for the firm exit rate.

To reduce any noisiness in the data from year to year—in particular for metros—the average of the earliest three years of our data are used as the starting point of comparison and the average of the latest three years are used as the end point. Each dot represents a state or metro, and the coordinates represent average values for a particular dynamism measure in 1978-1980 (vertical axis) versus 2009-2011 (horizontal axis).

Each panel in Figure 3 also has an angled line creating symmetry in the top and bottom halves of the chart. Doing this illustrates the relative performance of a measure—in this case, measures of business dynamism—in one period versus another. Dots above the line indicate higher activity for a particular measure in a state or metro in 1978-1980 relative to 2009-2011, while dots below the line indicate the opposite. A dot directly on the line represents a state or metro that had the same rate of activity in both periods.

For example, Ohio had a firm entry rate of 11 percent in 1978-1980 compared with 6 percent in 2009-2011, and is therefore represented by a dot above the line. On the other hand, Ann Arbor, Michigan had a job reallocation rate of 28 percent in 2009-2011 versus 25 percent in 1978-1980; placing it below the line. Cleveland, Tennessee and Dubuque, Iowa had job reallocation rates that were nearly identical in both years, and are therefore represented by dots near the line.

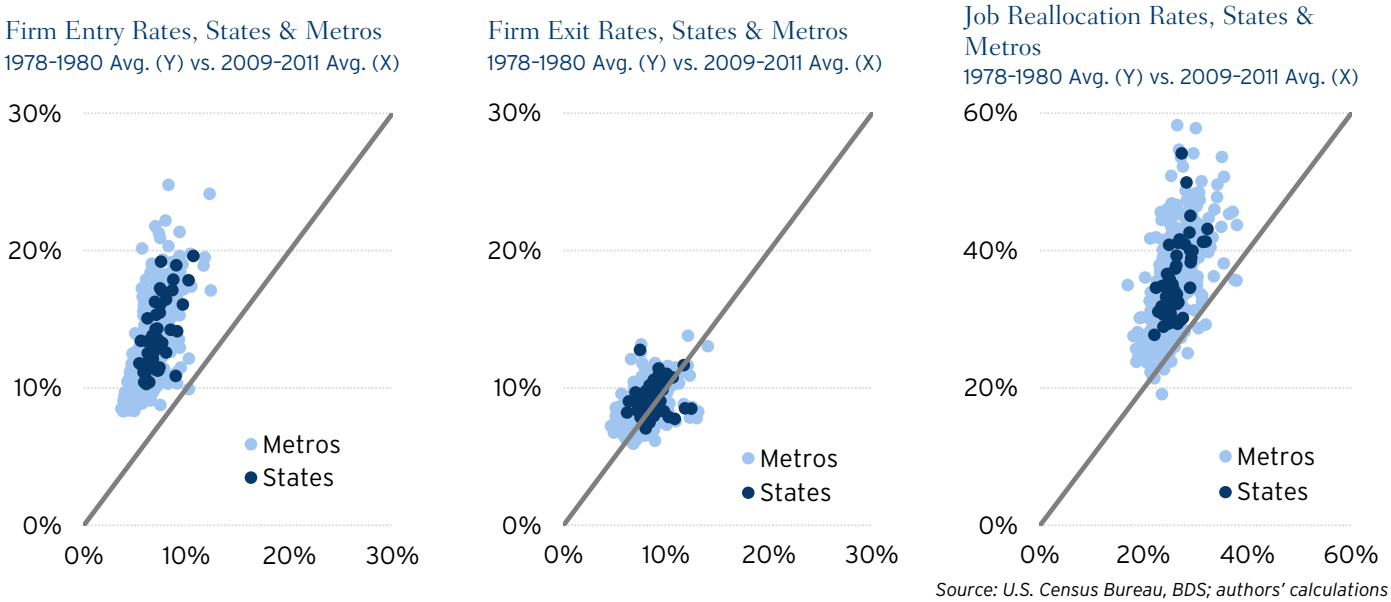
> Firm entry rates were *lower in each state and all but one metro area* compared with three decades ago, and job reallocation rates were lower in each of the states and in all but a dozen metros during the same period.

Figure 3 tells a clear story of declining business dynamism that is nearly universal across the U.S. regions. Firm entry rates were lower in each state and all but one metro compared with three decades ago, and job reallocation rates were lower in each of the states and in all but a dozen metros during the same period. For comparison, firm exits were much more similar to rates experienced thirty-plus years prior relative to these other measures of economic dynamism.

Figure 3.

## Declining business dynamism is nearly universal across all U.S. regions

Dots above the line indicate higher activity for a particular measure in a state or metro in 1978-1980 relative to 2009-2011, while dots below the line indicate the opposite.




*Source: U.S. Census Bureau, BDS; authors' calculations*

# Regional Variation

So far we have established that business dynamism—as measured by firm entry rates and job reallocation rates—has been on a steady, persistent decline nationally in the thirty-plus years for which data are available. Outside of the occasional blip from business cycle fluctuations, the trend has clearly been down during this period. We also established that the decline appears to be widespread geographically, reaching every state and nearly all U.S. metros.

But, it is possible that comparing two data points three decades apart misses a lot of variation of the underlying states and metros in the interim years. Since it is difficult to visually compare 50 states and 366 metros over time, here a statistical technique is implemented to provide a broad measure of relative performance among these geographic entities over time.

Figure 4 shows the standard deviation—a measure of variance—for three measures of business dynamism across the states and metros between 1978 and 2011. Each standard deviation has been weighted by the relative size of each of its underlying entities. For example, California would receive greater weighting in the standard deviation measure than would Delaware.

The purpose of this exercise is to reveal how similarly these states and metros perform relative to one another and whether they have become more or less similar over time. If it were the case of similar behavior we would expect to see low measures of standard deviation. Likewise, if it were the case that states and metros are behaving more similarly over time we would expect the standard deviations to become smaller in later years versus three decades ago. Figure 4 shows this to be the case—albeit to varying degrees and in different ways across geographic entities and measures of business dynamism.

Given the greater diversity of activity across an entire state than in any individual metropolitan area, it is not surprising that metros have higher standard deviations relative to states. Also not surprising is the fact that firm entry rates and firm exit rates exhibit lower variation, while the performance of job reallocation across states and metros is much greater. This is true at the national level – job reallocation is a much more volatile number from one year to the next – so one would expect this to be true at the sub-national levels as well.

Firm entry and exit rates have been low and fairly stable since the late 1980s. Aside from the increase (decrease) in standard deviation of firm entry rates during the run-up (aftermath) to the Great Recession, and the increase in firm failure rates in the years that followed, these two figures show that both states and metros have exhibited relatively high similarity on these two measures over time.

> Put simply, the broad decline in business dynamism occurring during the last few decades nationally *is not isolated to a few regions.*

Perhaps most striking is the convergence among states and metros on the job reallocation rate—our broadest measure of overall business dynamism. Though exhibiting much more variability than our other measures (higher standard deviations), the data also show a steady decline in the standard deviation of these rates. In other words, states and metros are increasingly performing much more alike on this higher variability measure of business dynamism; all of this within the context of falling dynamism overall.

Put simply, when combined with Figure 3, Figure 4 shows that the broad decline in business dynamism occurring during the last few decades nationally is not isolated to a few regions. In fact, the data show that it is a pervasive force evident in nearly all corners of the country.

Figure 4.

## States and metros are behaving more similarly over time

When combined with Figure 3, these figures show that the broad decline in business dynamism occurring during the last few decades nationally is not isolated to a few regions.

*Figure 4a*, Weighted Standard Deviation of Firm Entry Rates – States and Metros (1978–2011)

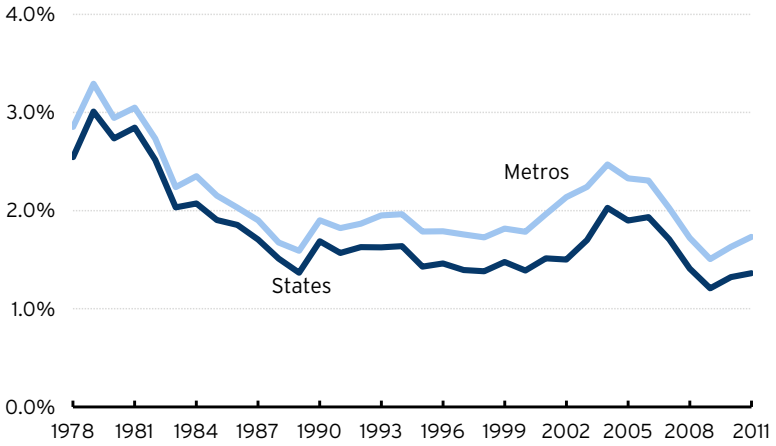



*Figure 4b*, Weighted Standard Deviation of Firm Exit Rates – States and Metros (1978–2011)

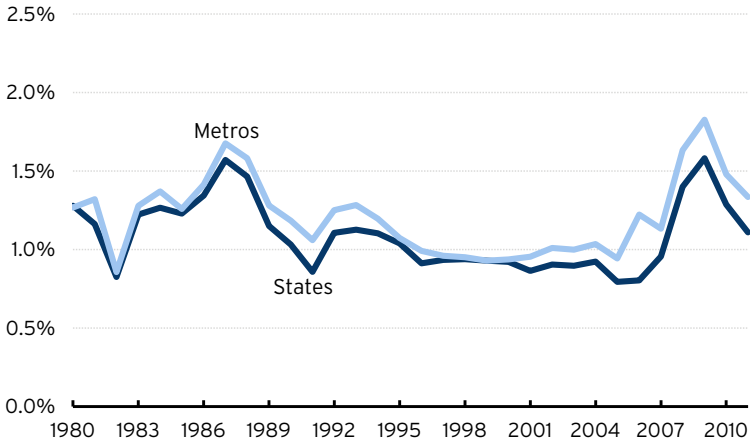
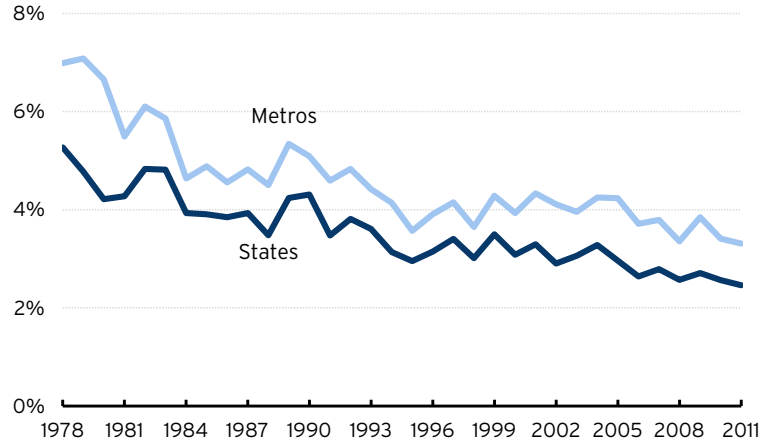



*Figure 4c*, Weighted Standard Deviation of Job Reallocation Rates – States and Metros (1978–2011)



# Conclusion

Overall, the message here is clear. Business dynamism and entrepreneurship are experiencing a troubling secular decline in the United States. Existing research and a cursory review of broad data aggregates show that the decline in dynamism hasn't been isolated to particular industrial sectors and firm sizes. Here we demonstrated that the decline in entrepreneurship and business dynamism has been nearly universal geographically the last three decades—reaching all fifty states and all but a few metropolitan areas.

Our findings stop short of demonstrating why these trends are occurring and perhaps more importantly, what can be done about it. Doing so requires a more complete knowledge about what drives dynamism, and especially entrepreneurship, than currently exists. But it is clear that these trends fit into a larger narrative of business consolidation occurring in the U.S. economy—whatever the reason, older and larger businesses are doing better relative to younger and smaller ones. Firms and individuals appear to be more risk averse too—businesses are hanging on to cash, fewer people are launching firms, and workers are less likely to switch jobs or move.

Whatever the reason, older and larger businesses are doing better relative to younger and smaller ones.

To be sure, three years have passed since our latest data were collected in March 2011, so it's entirely possible that some of these negative trends have reversed—or at least stabilized—since then. Future data releases will reveal what has occurred in recent years, and we'll be monitoring that closely. However, one way to ensure a more dynamic economy going forward is for the federal government to adopt policies that better facilitate entrepreneurship.

Perhaps the best and most immediately effective way to do this is to significantly expand the numbers of immigrant entrepreneurs granted permanent work visas to enter and remain in this country. Allowing foreign graduates of U.S. schools who concentrate in the so-called STEM fields (science, technology, engineering and math) to remain in the United States to work for other enterprises is also an imperative, especially given the historical pattern indicating that immigrants are twice as likely to launch businesses as native-born Americans.

At the state and local level, governments, educational institutions, entrepreneurs, investors and foundations should continue to experiment with ways to encourage new business formation. The increasing popularity of "business accelerators" throughout the country is a welcome development that should be nurtured.

Finally, policy makers, citizens, owners, employers and entrepreneurs must not be afraid of dynamism, or change, even though it can be unsettling for a time. To paraphrase President Clinton, we must make "change our friend," because to resist it is to settle not only for the status quo, but in a world in which other countries and citizens are improving their skills, products and services, the failure to change will only ensure continued decline.

# Endnotes

1. U.S. Census Bureau, Business Dynamics Statistics; authors' calculation.

2. Bureau of Labor Statistics, Business Employment Dynamics; authors' calculation.

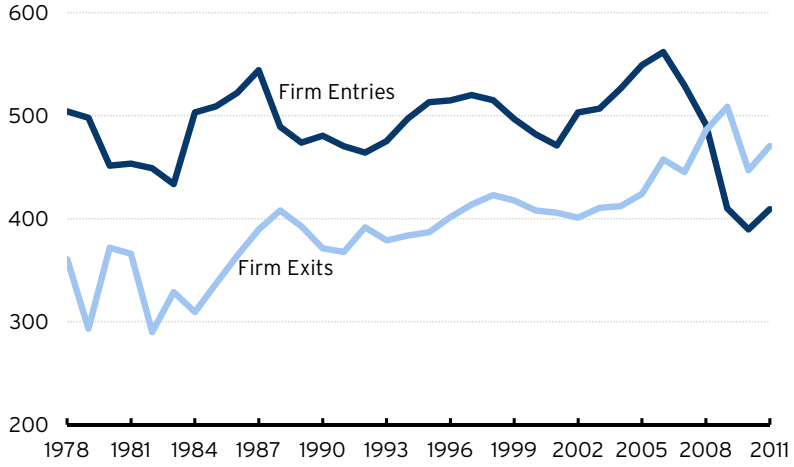
3. See Syverson (2011), "What Determines Productivity?," Journal of Economic Literature, 49(2): 326–65; Haltiwanger (2011), "Job Creation and Firm Dynamics in the U.S.," Innovation Policy and the Economy, Volume 12, NBER.

4. Haltiwanger (2011), "Job Creation and Firm Dynamics in the U.S.," Innovation Policy and the Economy, Vol. 12, *NBER*.

5. Decker, Haltiwanger, Jarmin, and Miranda (2014), "Entrepreneurship and Job Creation in the U.S.," *forthcoming*.

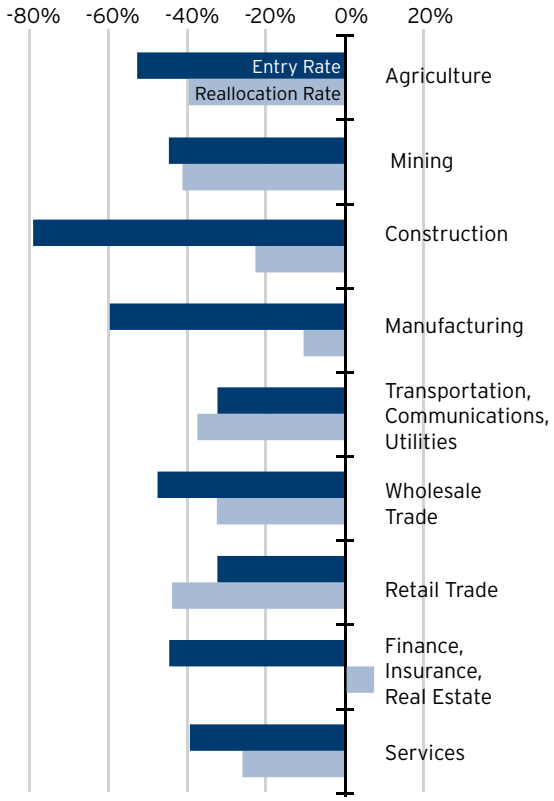
# Appendix Charts

*Figure A1*: Firm Entries and Firm Exits in Thousands (1978–2011)



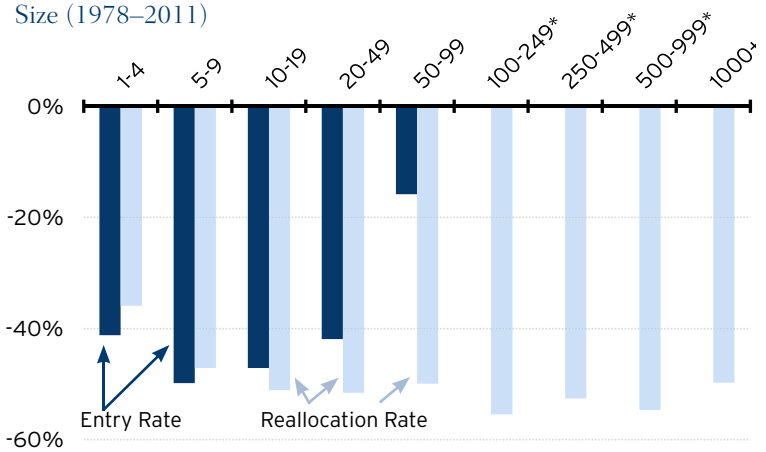

Source: U.S. Census Bureau, BDS

*Figure A2*: Percentage Change in Business Dynamism Measures by Sector (1978–2011)




Source: U.S. Census Bureau, BDS; authors' calculations

*Figure A3*: Percentage Change in Business Dynamism Measures by Firm Size (1978–2011)




Source: U.S. Census Bureau, BDS; authors' calculations
Note: (*) indicates that entry rates are excluded because new firms represent less than one percent of all firms; it is also unlikely that these represent new firms in the traditional sense, and are more likely expansions of foreign multinational firms. See Stangler and Kedrosky (2010), "Neutralism and Entrepreneurship: The Structural Dynamics of Startups, Young Firms, and Job Creation"