INDEX OF STATE DYNAMISM

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ECONOMIC
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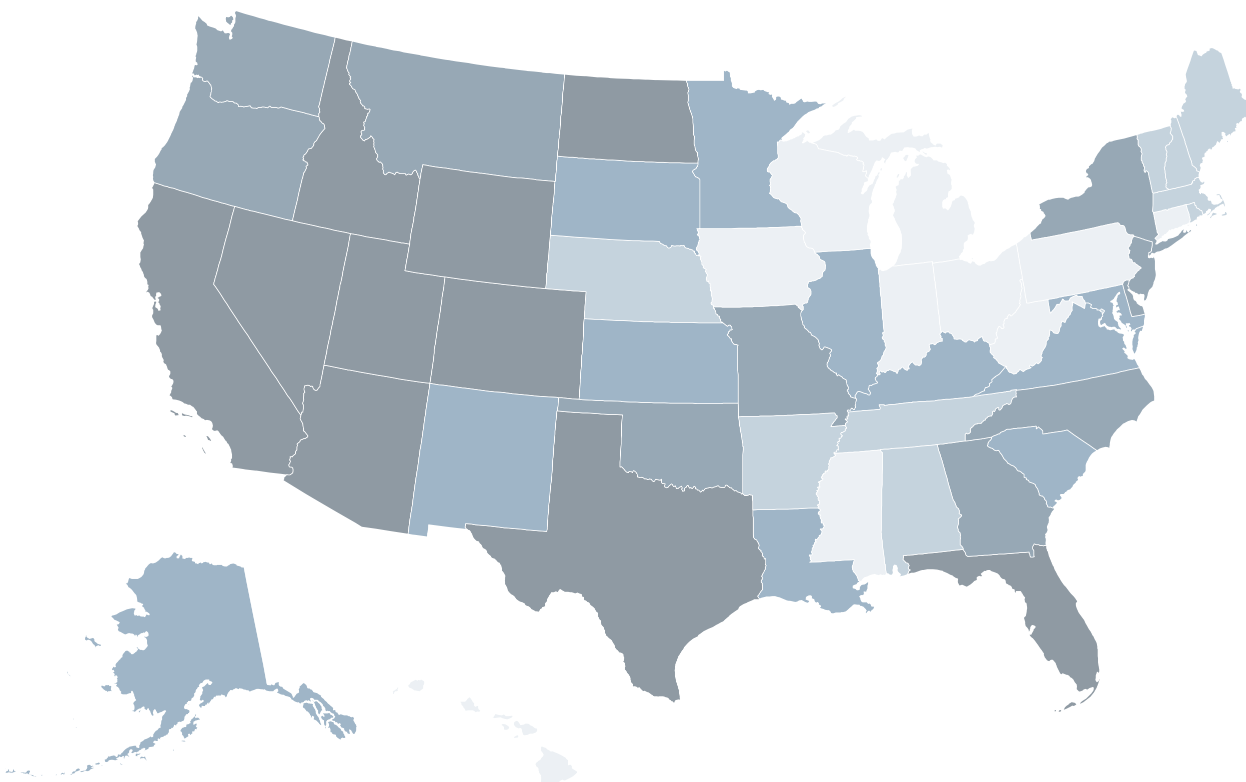

Learn more about the state of economic dynamism across the United States by visiting our online, interactive edition of this report at **EIG.org/index-state-dynamism**

I. Introduction

There are many ways to evaluate the health of an economy.

Changes in the unemployment rate or gross domestic product are often used as benchmarks for state or national economic well-being. Another important but often overlooked factor is *dynamism*—a term that encompasses the economy's rate and scale of change across a variety of related measures, including the pace at which businesses open and close and the frequency with which workers change jobs or move to different states. Together, the components of dynamism help us determine whether a capitalist market economy—dependent on constant reinvention, vigorous competition, and broad-based ownership—is working as it should.

There is growing concern that the United States is becoming fundamentally less dynamic, raising questions about what such a shift holds for the nation's prosperity and competitiveness in the years ahead. The entrepreneurial and restless energy that once defined the United States seems to be evaporating as the economy grows more static, top-heavy, and concentrated.

There is growing concern that the United States is becoming fundamentally less dynamic.

Concerns about the basic health and functioning of the economy have taken on new degrees of urgency with the potential for systemic disruption on the horizon thanks to the rise of automation and artificial intelligence.

Since dynamism is a proxy for adaptability, it provides a measure of how well-poised economies are to confront and adapt to such trends. Dynamic places with high rates of new business creation, steady influxes of human capital, and flexible labor markets retain the capacity to constantly reinvent themselves as broader changes spread throughout the economy. Less dynamic economies are more brittle. These are the places where the cycle of creative destruction is the most muted, resulting in greater exposure to the downsides of economic change.

EIG produced a wide-ranging analysis of this dilemma in its recent report, **"Dynamism in Retreat: Consequences for Regions, Markets, and Workers."** That report examined broad national trends and found what amounts to a crisis of lost dynamism—driven by a collapse in new business formation at its core—that is redefining the U.S. economy to the benefit of a handful of elite places, firms, and workers. Now, the **Index of State Dynamism** (ISD) provides a new way to measure the same trends at the state level using a set of interrelated economic metrics going back more than two decades. The following analysis adds important new dimensions to our understanding of the broader national trends.

- First, it underscores that the decline of dynamism has been steep, rapid, and pervasive across all states going back to the early 1990s (and likely further). Every state saw dynamism fade over the period analyzed—and most states saw a sizeable drop. The Great Recession accelerated the decline and caused dynamism scores to converge across states. By 2014, the nation's most dynamic state compared closely to a lagging state only two decades ago.

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- Second, the index maps clear regional differences in state-level dynamism. It reveals an unambiguous East-West divide, with the highest concentration of dynamic states found in the West and the least dynamic found east of the Mississippi River, particularly in the Great Lakes region.

- Third, it uncovers substantial industrial and demographic variations between highly dynamic states and their less dynamic peers. The most dynamic state economies tend to be newer and more prosperous ones—states with younger populations, newer housing stocks, and much higher proportions of foreign-born residents. The least dynamic state economies tend to be the most manufacturing-dependent and have the least developed information services sectors.

- Fourth, states with top-tier dynamism scores show unmistakable signs of resilience in response to economic trauma, posting much stronger jobs recoveries than their peers following the Great Recession. In fact, the top-performing quintile of states on the index prior to the recession was the only cohort to beat national average employment growth during the recovery. The jobs recovery in the bottom tier of states was only half as strong.

Taken together, these findings challenge the widespread notion that we are living in an era of unprecedented change and disruption. In truth, the U.S. economy appears far less changeful than it once was. Perhaps what accounts for the disconnect is that, as dynamism has declined, the relative pain for those most impacted by economic change has increased.

Important caveats must be added. Dynamism has long been a crucial ingredient in U.S. economic growth and prosperity, but dynamism should not itself be understood as synonymous with prosperity or innovation. Nor is this index an attempt at an all-encompassing measure of *well-being*. States can be relatively non-dynamic and at the same time maintain high levels of general prosperity based on other strengths.

Furthermore, some readers will want to interpret the findings here as a direct reflection of near-term policy developments. Such efforts are likely to be fruitless. While policy choices in the aggregate certainly impact dynamism over time, our findings suggest that a state's relative position on the index is difficult to change significantly in the short term and that every state is subject to broader regional and national headwinds. That makes the task at hand—restoring dynamism nationwide—more daunting but no less urgent.

Taken together, these findings challenge the widespread notion that we are living in an era of unprecedented change and disruption.

II. Methodology

The ISD is a weighted average of seven measures of economic dynamism that parallel those discussed in EIG's national framing report, "Dynamism in Retreat." Each measure captures a distinct element of economic dynamism. Conceptual breadth, consistency with the national report, and data availability ultimately dictated the selection of metrics:

Business churn

The share of all firms in a state that opened in the past year plus the share that closed, providing a measure of the total magnitude of turnover in a state's business landscape (Source: Census Business Dynamics Statistics (BDS))

Change in firms

Annual increase/decrease in the total number of employer firms in a state (Source: BDS)

Jobs in new companies

Share of total state employment in firms that started in the past year (Source: BDS)

Jobs in incumbent companies

Share of total state employment in firms at least 16 years old (enters the index as its inverse) (Source: BDS)

Labor market churn

The magnitude of shifts in labor among employers as firms open, close, expand, and contract, measured annually as the job creation rate plus the job destruction rate minus the absolute value of the net change in jobs[1] (Source: BDS)

Labor force participation

The share of the civilian noninstitutional population ages 16 and over that is either currently employed or actively seeking work (Source: Bureau of Labor Statistics)

Net domestic migration

Net number of people moving to or from a state per 1,000 residents, excluding movers to and from abroad (Source: U.S. Census Bureau)

The ISD covers the period from 1992 to 2014, reflecting the earliest and latest data available for this collection of metrics. The index was constructed using a max-min approach in which state values on each variable were transformed such that the maximum value registered by any state over the course of the entire time series became 100 and the minimum value registered by any state became 0.[2] All observations within each indicator matrix (50 states plus the District of Columbia (DC) by 23 years) were then adjusted to fall proportionally within that 0-to-100 range.[3] Once all indicator matrices were thus transformed, each indicator could be incorporated into the index on the same terms. Six of the seven components are weighted equally at 12.5 percent of the composite index value. The seventh, business churn, is weighted doubly (25 percent) given that it is the single most prominent metric of dynamism and that it includes two components itself: the firm start rate and the firm closure rate.

1. This is the "reallocation rate" in the Business Dynamics Statistics dataset.
2. EIG made a small number of adjustments to outliers or anomalies in the maximum and minimum values where necessary in order to preserve the integrity of the methodology: To the net domestic migration figures in Louisiana in 2006 (the impact of Hurricane Katrina) and to multiple values from the BDS dataset for DC in 2003 and 2004.
3. For brevity, the word "state" will encompass DC throughout the remainder of this report.

III. Findings

The Landscape of American Economic Dynamism

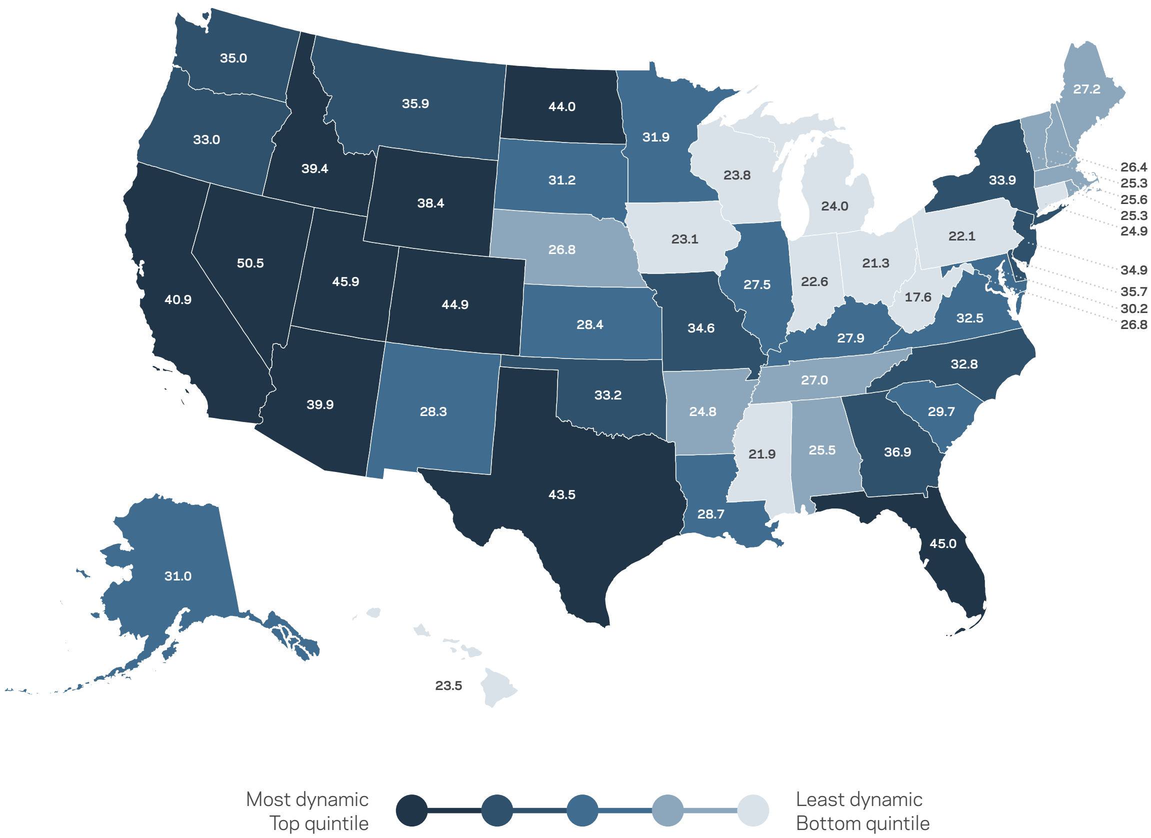
Key Findings

- The United States has experienced a steep and pervasive decline in its economic dynamism since the 1990s.
- The West is the most dynamic region in the country and Nevada the most dynamic state.
- The most dynamic state today scores like one of the least dynamic states two decades ago.
- Dynamism runs lowest in the Great Lakes region.
- Ten states generated half of the national increase in companies from 1992 to 2014.
- A small group of elite states fuels national economic dynamism.
- Nearly one-third of states experienced at least a 50 percent fall in their dynamism score from 1992 to 2014.
- There is little turnover among the top and bottom ranking states on the index.
- North Dakota's miraculous rise exposes just how much the rest of the country has fallen.

The United States has experienced a steep and pervasive decline in its economic dynamism since the 1990s.

The ISD confirms what we already know from a multitude of individual statistics: The U.S. economy is growing steadily less dynamic over time. The decline is remarkably consistent across each of the seven indicators comprising the index; they all point the same direction. The U.S. score on the index fell from 57.3 in 1992 to 48.8 in 2004 before plummeting over the following decade to 34.2 in 2014. U.S. dynamism reached its series low-point in 2013, at 33.5. The ISD shows that no state has been insulated from the broad national trend. Without exception, scores dropped in every state over the period studied.

1. Index of State Dynamism scores, 2014



2. The 10 most dynamic states, 2014

State	Score	Rank
Nevada	50.5	1
Utah	45.9	2
Florida	45.0	3
Colorado	44.9	4
North Dakota	44.0	5
Texas	43.5	6
California	40.9	7
Arizona	39.9	8
Idaho	39.4	9
Wyoming	38.4	10

3. The 10 least dynamic states, 2014

State	Score	Rank
West Virginia	17.6	51
Ohio	21.3	50
Mississippi	21.9	49
Pennsylvania	22.1	48
Indiana	22.6	47
Iowa	23.1	46
Hawaii	23.5	45
Wisconsin	23.8	44
Michigan	24.0	43
Connecticut	24.6	42

The West is the most dynamic region in the country and Nevada the most dynamic state.

In general, dynamism exhibits distinct regional patterns, running high and low in clusters of neighboring states with similar economic foundations. The East-West pattern is perhaps most pronounced, however, and most consistent across components of the index. The average dynamism score in the western half of the country was 37.6 in 2014, more than one-third above the average score in the eastern half of 27.4.[4]

Nine out of the 10 most dynamic states in the country are located west of the Mississippi River, with Florida being the sole exception. Nevada ranks as the most dynamic state in the nation by a wide margin, nearly five points ahead of number two, Utah. The Mountain West stands out as having the densest cluster of high-dynamism states. In that region, only New Mexico lags behind the national average.

The most dynamic state today scores like one of the least dynamic states two decades ago.

Amid all the changes in the national economy over the two-plus decades studied—multiple tech booms, the decimation of manufacturing jobs in the 2000s, the housing bubble, the financial crisis, and then a protracted recovery—Nevada managed to dominate the index from essentially start to finish. This accomplishment is even more remarkable considering the state was the epicenter of the 2008-2009 housing crash.

Nevertheless, even the country's most dynamic state economy today resembles one of the least dynamic state economies of the not-too-distant past. Nevada's top-ranking index score of 50.5 in 2014 would have been one of the bottom-ranking scores in 1992 (34th), at the start of the index.

4. The western half stretches from the Pacific to North Dakota in the north and Texas in the south.

4. The states registering the largest increases in total number of firms from 1992 to 2014

State	Percent change in number of businesses	Change in number of businesses	Percent change in population
Utah	83%	23,300	62%
Nevada	79%	18,500	113%
Idaho	49%	10,400	53%
Colorado	48%	35,300	55%
Arizona	39%	24,500	74%
Florida	37%	98,000	47%
Montana	35%	6,900	24%
Wyoming	35%	4,000	26%
Georgia	31%	35,600	49%
Texas	31%	88,000	53%

Dynamism runs lowest in the Great Lakes region.

Eight of the country's 10 least dynamic states are located east of the Mississippi River, and six of the 10 are clustered around the Great Lakes. Dynamism runs lowest in the Ohio-Pennsylvania-West Virginia triangle—states still struggling against the weight of deindustrialization despite promising turn-arounds in metro areas like Columbus and Pittsburgh. Within the Great Lakes region, Illinois emerges as a surprisingly strong performer thanks to Chicago, which remains the largest metropolitan area in the Midwest at a time when being big is increasingly important in terms of economic growth and resiliency (as EIG's other work has documented).[5]

Elsewhere, Mississippi ranks as the least dynamic economy in its broadly struggling neighborhood, and Connecticut lags behind its peers in New England.

Ten states generated half of the national increase in companies from 1992 to 2014.

The country's most dynamic states are often characterized by a flourishing of enterprise over time. No state better exemplifies this than Utah, which has ranked no lower than third on the index since 1996. The number of firms operating in the state climbed by 23,000 over the 23-year period studied.[6] That figure represented an astonishing 83 percent expansion in the base of companies in the state—far outpacing population growth itself.

5. See "The New Map of Economic Growth and Recovery" available at eig.org/recoverymap and also "Dynamism in Retreat" available at eig.org/dynamism.

6. It is worth remembering why firms themselves matter. Firms transform fragmented inputs into more than the sum of their parts. Firms are sites of innovation—and they are uniquely able to commercialize it. Their ability to achieve scale has powered modern prosperity. They can take risks that individuals cannot. A large number of them is essential for keeping competition vigorous and markets healthy. The total number of firms may be a rather crude economic indicator, but generally speaking the more of them an economy has in the pipeline, the better.

5. The five states with fewer companies in 2014 than 1992

State	Change in firms	Percent change in firms	Change in population	Percent change in population
Iowa	-150	-0.3%	300,200	10.7%
Michigan	-2,300	-1.5%	439,600	4.6%
West Virginia	-3,260	-11.4%	44,900	2.5%
Connecticut	-4,060	-6.0%	321,700	9.8%
Ohio	-10,950	-6.2%	586,600	5.3%

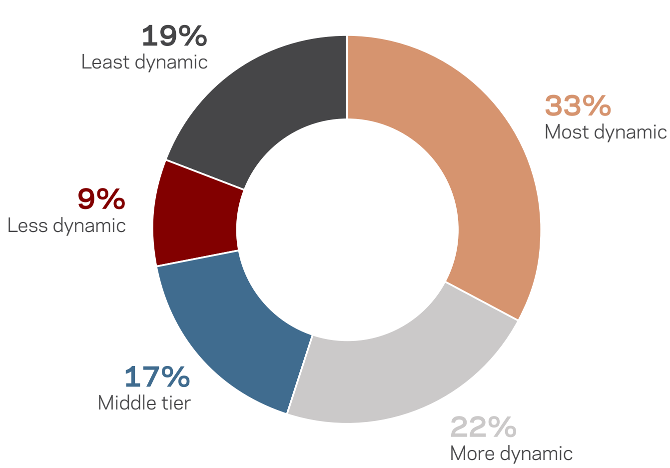
Nevada trailed just behind with a 79 percent expansion. Even among the top performers, Utah and Nevada are remarkable outliers; there is a 30-point gap between second place Nevada and Idaho, which ranks third on this metric, having grown its stock of companies by half.

In total, the 10 states with the highest percent increase in businesses accounted for just over half of the total national increase in firms over the period—344,500 out of 680,900. The same 10 states were responsible for 43 percent of the country's population growth.

At the other end of the spectrum, five states actually saw the number of companies within their borders fall over the 23-year period studied. West Virginia suffered the steepest fall in relative terms—an 11 percent decline. The more surprising case may be Ohio. Astoundingly, the state had 11,000 fewer companies in 2014 than it did in 1992 even as its population increased by nearly 600,000 people over the period and real GDP rose by roughly one-quarter. Crucially, this decline is not due to the state having unusually high rates of firm closures; rather, it is due to the state having unusually few new firm starts. The rate of firm closures in the state stood below the national average every year.

The sheer number of firms of course reveals nothing about their quality,

6. Distribution of U.S. population across states by dynamism quintile



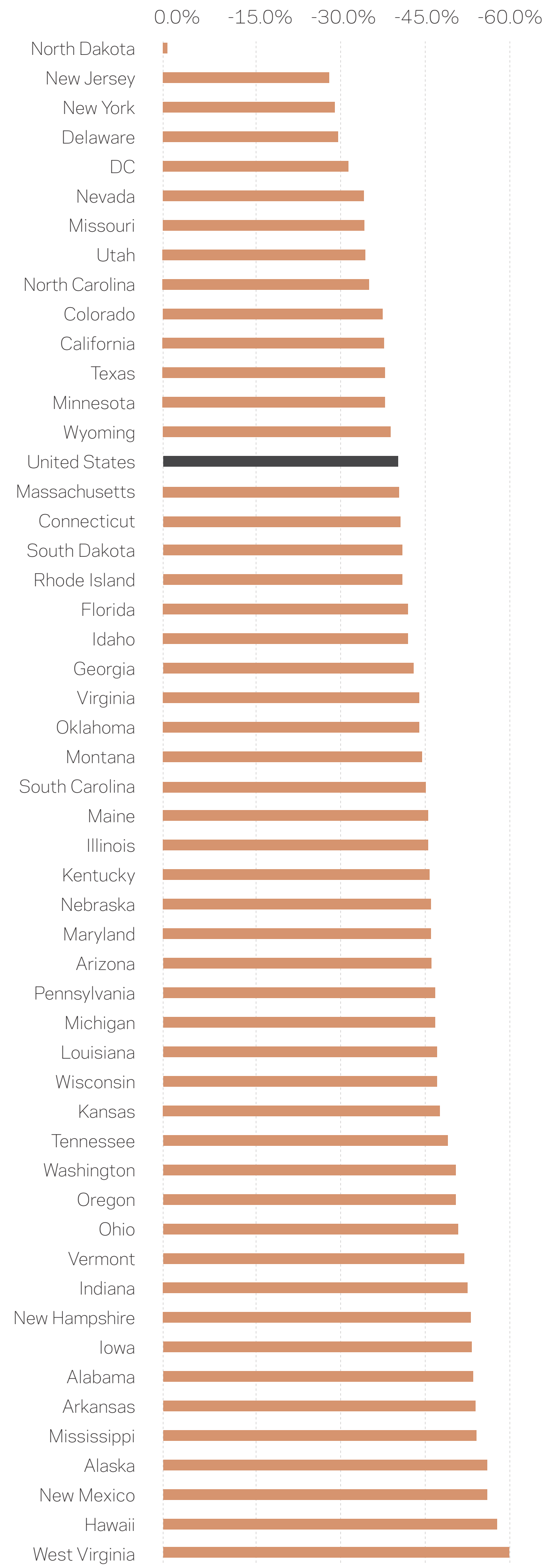
but it does provide an important metric of how vibrant the marketplace is in a state. Compare Ohio's performance to Massachusetts' and New Jersey's, two states that demonstrated much more resiliency and climbed the ranks of the index over time: Both states added roughly as many firms as Ohio lost. Such measures matter because firms are the fundamental unit of our market economy. At its most muted, low levels of dynamism can lead to an outright erosion in the number of companies in a state over time—a clear indication of economic sclerosis. High levels of dynamism, on the other hand, are associated with a proliferation of firms and employment providers and much more economic opportunity.

A small group of elite states fuels national economic dynamism.

The 10 most dynamic states contain almost exactly one-third of the country's population, bolstered by three giants: California, Florida, and Texas. The fact that many of the country's most dynamic states are also its most populous means that their weight drives the national figure higher. The United States as a whole scored 34.2 on the index in 2014, while the average state scored only 31.2. Only 16 states were more dynamic than the country itself. The national-level figure therefore obscures a deep divide across states between the few relatively elite performers and a long-tail of less dynamic ones.

Accordingly, the U.S. economy does not spawn new companies evenly or proportionally across the landscape. The 10 most dynamic states alone accounted for over 156,000 of the 405,000 new companies launched nationwide in

7. Percent change in index score, 1992-2014



8. The states with the largest climbs and falls on the index from 1992 to 2014

10 biggest climbs in rank		
State	Change in rank	2014 rank
North Dakota	+39	5
New Jersey	+24	15
New York	+23	17
Delaware	+20	13
District of Columbia	+16	35
Missouri	+12	16
North Carolina	+12	20
Massachusetts	+11	37
Minnesota	+8	22
Rhode Island	+8	39

10 biggest falls in rank (tie)		
State	Change in rank	2014 rank
Hawaii	-23	45
Arkansas	-21	41
Alaska	-18	24
New Hampshire	-18	36
Alabama	-17	38
New Mexico	-15	29
Mississippi	-11	49
Vermont	-11	40
Iowa	-9	46
Oregon	-9	19
Washington	-9	14

2014—39 percent of them. These states were also instrumental in keeping the U.S. economy "above water" with more firms opening than closing nationwide. Without them, the total number of companies in the U.S. economy would barely have grown in 2014—underscoring the continued fragility of new business formation across the United States even during a prolonged economic recovery.

Nearly one-third of states experienced at least a 50 percent fall in their dynamism score from 1992 to 2014.

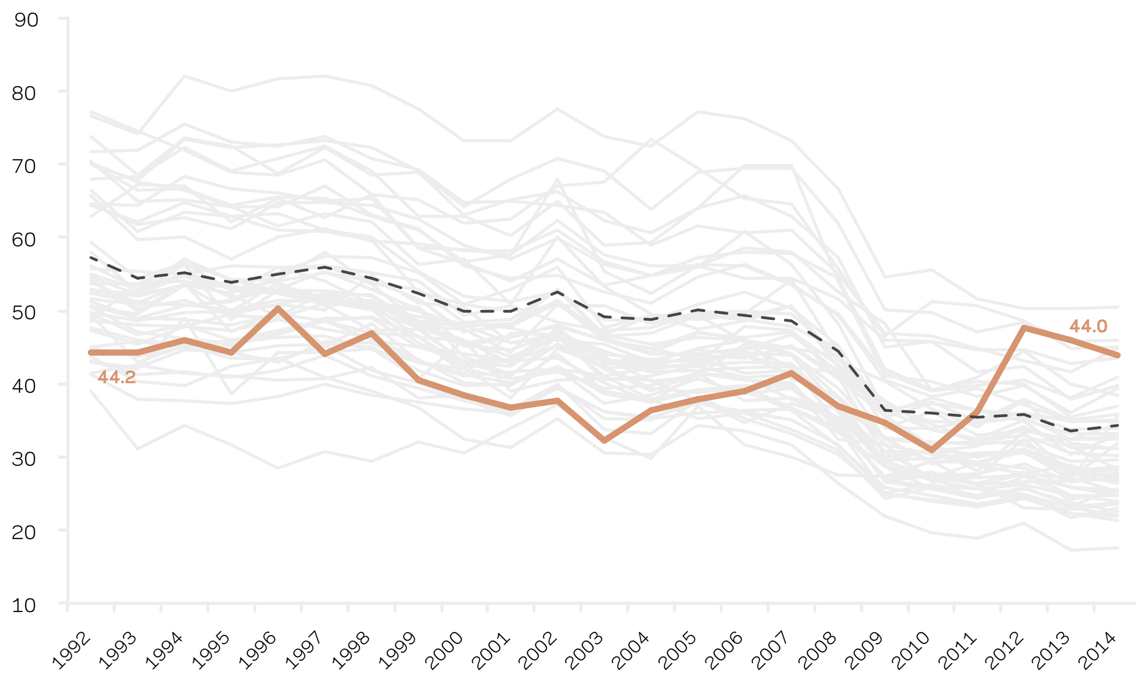
In total, 14 states scattered all across the country saw their dynamism scores more than halve from 1992 to 2014. West Virginia, Hawaii, and New Mexico posted the most significant percent declines. New Mexico may be the most interesting case study. The state began the 1990s as a classic western knowledge economy that appeared primed for continued growth. But, with no major metro area and a relatively undiversified technology sector, the state fell further and further behind its neighbors over the years that followed.

After North Dakota, the shallowest declines were registered in New York and New Jersey. These two states started off with relatively low levels of dynamism but proved more resilient than other states over time and exited the recession with dynamism scores on par with the nation as a whole. This in large part comes down to the resiliency of the greater New York City metropolitan area in particular, whose size, diversification, and global connectivity have bolstered the region's dynamism in the face of headwinds.

There is little turnover among the top and bottom ranking states on the index.

The most dynamic states in one period tend to be the most dynamic years down the road, and vice-versa for the least dynamic. This implies that dynamism exhibits considerable inertia; once lost, it is difficult to recover.

9. Index of State Dynamism: North Dakota



Nevada occupied the number one spot for almost the entire duration of the study. At the other end of the distribution, DC ranked lowest through the first half of the dataset and then relinquished the position to West Virginia for the second half. In the end, seven states that ranked among the top 10 in 1992 remained there in 2014, while six states stayed in the bottom 10 over the 23-year period studied. The states that remained in the top 10 are the main growth poles of the Sun Belt and Mountain West: Nevada, Utah, Florida, Colorado, Texas, Arizona, and Idaho. These states have varying economic bases but share an ability to attract large numbers of in-migrants, which are both drawn to strong underlying rates of economic growth and also fuel it further.

On the less dynamic side, the states that began and ended the time series in the bottom 10 are all aging industrial economies in the Great Lakes and Northeast: Connecticut, Michigan, Ohio, Pennsylvania, West Virginia, and Wisconsin.

Despite this persistency at the top and the bottom of the index, a handful of states did experience large climbs or falls relative to their peers over the course of the study. Most of the reshuffling is accounted for by Northeastern states trading places with Southern states over time. The shifts reflect deeper changes in the economy over the 1990s, 2000s, and 2010s, with economic growth gravitating back towards urban areas and the knowledge-intensive work in which Northern states tend to be more specialized.

North Dakota's miraculous rise exposes just how much the rest of the country has fallen.

On the surface, North Dakota's miniscule decline of -0.5 percent on the index might appear to represent a case of remarkable resilience. In fact, it is a story of nearly miraculous improvement in a state's relative position over a relatively short period of time. In 1992, the state ranked 44th on the national index—far below the national average—and it fell even further through the early 2000s. By 2014, North Dakota had rocketed up to 5th place, with much of the improvement occurring between 2010 and 2012. No other state comes close to approaching this change in trajectory or in managing to end the study period with a dynamism score near where it started.

North Dakota's rise was fueled by an exceptional boom in oil and gas drilling—a boom which has subsided considerably since 2014. Between 2014 and 2016, for example, in-migration slowed from a torrent to a trickle. Nevertheless, the fact that it took such an exceptional boom to restore a small state's dynamism to its early-1990s level provides a benchmark for just how far dynamism has fallen elsewhere. North Dakota's economic dynamism in the early 2010s—at the height of a modern-day gold rush—was in fact equivalent to a normal year in a rather under-performing state only two short decades ago.

The state's success serves as a cautionary tale. It shows just how exceptional the circumstances must be in order to rekindle dynamism once it has faded. North Dakota's boom was not pure luck—it was enabled by science and technology, by public and private investments, by legal frameworks and individual ambition—but it is not easily replicated by others, either. Nevertheless, the state's recent experience showcases the potential benefits associated with restoring dynamism and growth: Median household income in North Dakota increased by an average of 5 percent per year from 2010 to 2014.

How the Recession Changed the Landscape

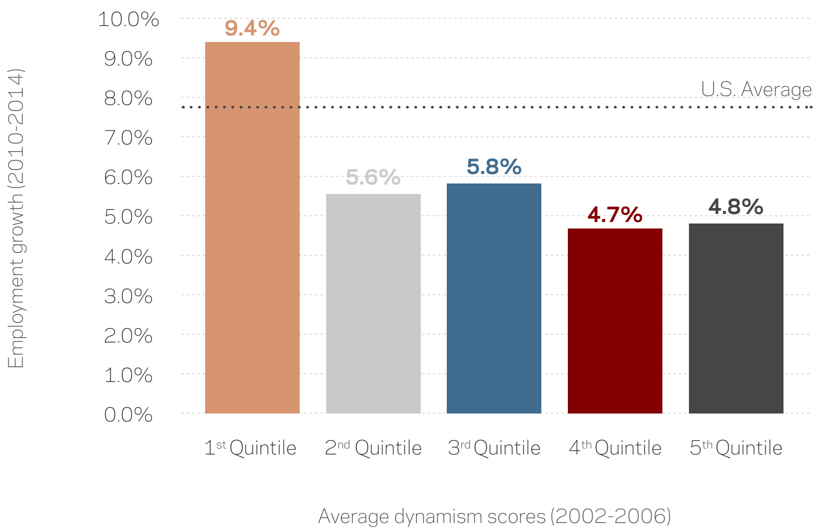
Key Findings

- The Great Recession accelerated the long-term decline in dynamism nationwide and precipitated a convergence in dynamism scores across states.
- The average state lost one-third of its dynamism to the recession.
- The most dynamic states prior to the recession experienced by far the strongest jobs recovery after it.
- Dynamism rose in only seven states over the recovery, while 17 states registered all-time lows in 2014.
- Only 20 states have seen significant movement in their relative dynamism over time.

The Great Recession accelerated the long-term decline in dynamism nationwide and precipitated a convergence in dynamism scores across states.

The Great Recession accelerated what had been a slow but steady erosion of the country's economic dynamism into an all-out collapse. At the national level, the index fell by 25 percent from 2007 to 2009 and by another 5 percent from 2010 to 2014. With five years of national recovery baked into the available data, this steep decline looks to be structural as opposed to a cyclical dip. Indeed, the hastened collapse is all the more troubling because increases in dynamism are difficult to achieve even in the best of times. Mature economies are constantly fighting against the inertial forces of incumbency, slow growth, and stasis in their markets and demographics. Dynamism only ticked up very slightly in the peak years of the 1990s and 2000s expansions, for example. In 14 of the past 22 years, it fell.

10. Average post-recession employment growth by pre-recession dynamism scores (excluding North Dakota)



In addition, the Great Recession precipitated a convergence in dynamism scores across states. Prior to the recession, the gap between the top-performing state (typically Nevada) and bottom-performing state (typically DC) averaged 45 points. Since 2010, the gap has averaged 33 points. The convergence is driven by the high performers being pulled down towards the mean, rather than low performers being pulled up.

The average state lost one-third of its dynamism to the recession.

Providing a measure of the Great Recession's lasting impact on state economies: Dynamism scores fell by one-third or more in 32 states between 2006 and 2014. The recession exacted the largest percent declines in Mississippi, West Virginia, and Idaho, where scores fell most relative to 2006—nearly halving in the case of Mississippi.

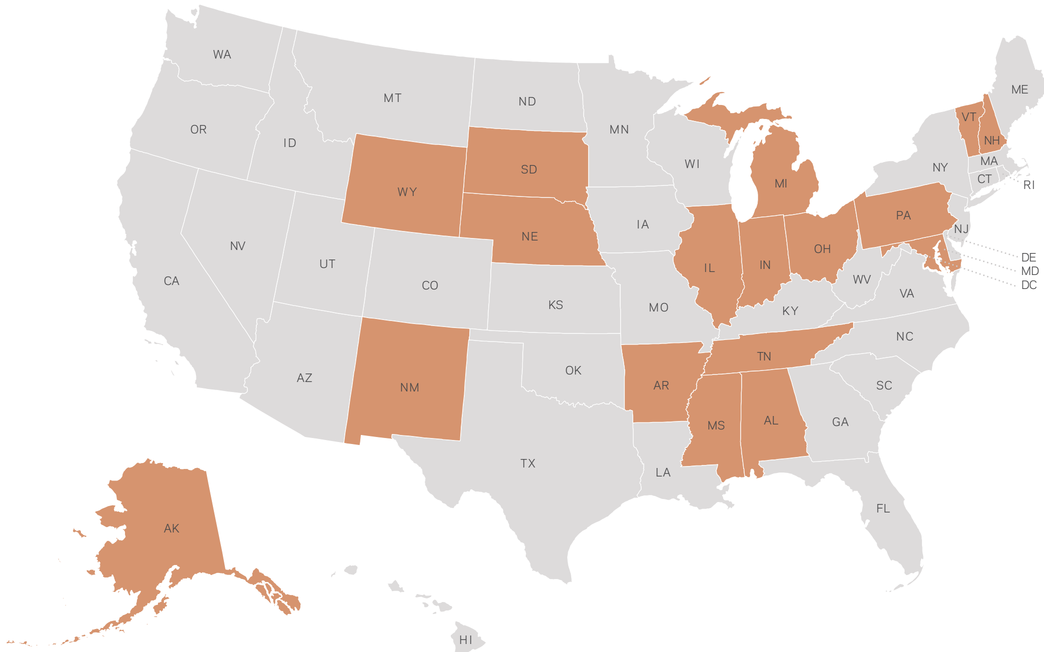
Dynamism in North Dakota, Delaware, DC, and Texas, on the other hand, was more resilient and fell by "only" 20 percent or less (and rising in the case of North Dakota) from 2006 to 2014. Texas barely experienced a recession thanks to its diversified economy, the boost of the same oil and gas boom that lifted North Dakota, and by managing to avoid the worst impacts of the housing crash. DC, for its part, benefitted from being the seat of government during a period of vastly increased public spending.

The most dynamic states prior to the Great Recession experienced by far the strongest jobs recovery after it.

The most dynamic states experienced the strongest employment recoveries in the wake of the Great Recession.[7] The 10 most dynamic states going into the recession saw employment rebound by an average of 9.4 percent from 2010 to

7. The employment figures in this section were obtained from the Bureau of Economic Analysis, "Total Wage and Salary Employment."

11. States where dynamism reached its lowest point on record in 2014



2014, compared to 7.6 percent job growth for the nation as a whole. No other quintile of states came close to matching the leading states' average growth rate—nor even to approaching the national one. The bottom 20 states, for their part, averaged barely half the rate of job creation post-recession as the country's dynamism leaders.[8]

Dynamism helps places weather adverse economic conditions more robustly and bounce back from severe stumbles more strongly.

It appears that dynamism helps places weather adverse economic conditions more robustly and bounce back from severe stumbles more strongly.

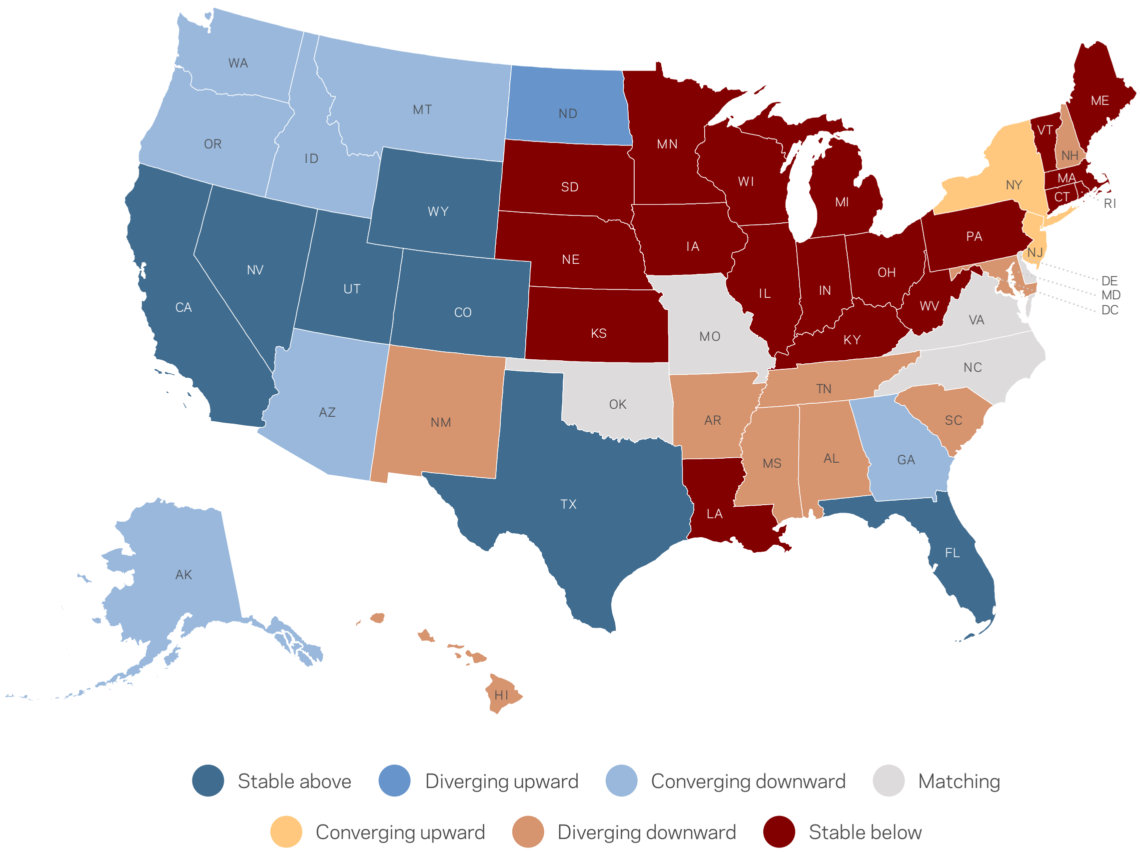
In other words, dynamism appears to serve as an important shock absorber for regional economies.

Dynamism rose in only seven states over the recovery, and it fell to its lowest point on record in 17 others in 2014.

Dynamism scores rose in only seven states from 2010 to 2014. Beyond North Dakota, the eclectic mix includes: Tech-heavy California in the West; Delaware and New Jersey in the East; manufacturing and logistics-heavy Kentucky in the South; and Minnesota and Missouri in the Midwest. Of those states, only five—California, Delaware, Kentucky, Minnesota, and Missouri—posted their post-recession dynamism highs in 2014.

8. Excludes North Dakota, which in prior to the recession landed in the bottom (fifth) quintile.

12. State dynamism trajectories relative to the national average



At the same time, more than one-third of all states registered their lowest levels of economic dynamism on record in 2014. These 17 states were spread all across the country but concentrated in the Great Lakes and Deep South.

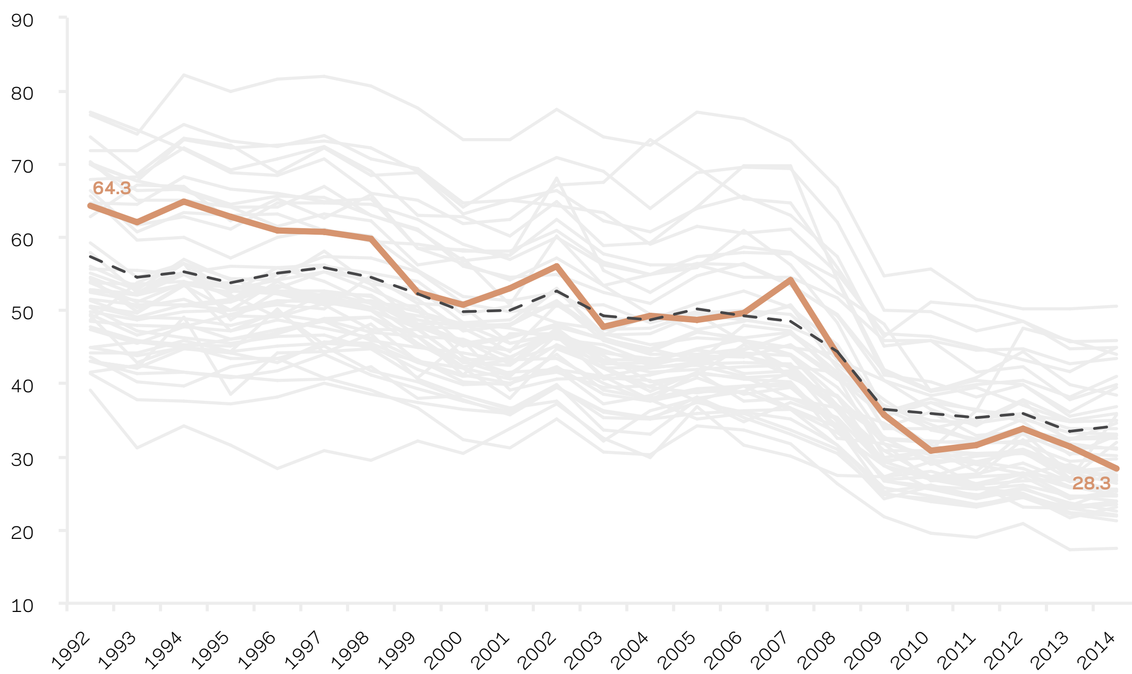
Only 20 states have seen significant movement in their relative dynamism over time.

Against the backdrop of long-term pervasive decline, a majority of states (31) have maintained their position relative to the U.S. baseline over time. These states either matched the national dynamism score and its decline or maintained a relatively stable distance above or below it—on a parallel course with the country as a whole.

The 20 states on different trajectories fall into four categories. In the first are states that started out far more dynamic than the U.S. economy but saw their scores fall toward the national baseline over time. The Pacific Northwest is home to the largest number of these states. Convergence started early in Washington and Oregon. In Arizona, Georgia, Idaho, and Montana, the Great Recession caused the reversion to the mean.

Another set of states started out in line with the national economy but saw their dynamism drop away even faster over the years than the country as a whole. Dynamism is not only falling in these states, but the gap between them and the (also falling) national average is widening.

13. Index of State Dynamism: New Mexico



These states are concentrated in the Southeast but include New Hampshire, Maryland, and New Mexico, which is the only state to have crossed from above the national average to below it over the course of the study. These states generally started on their divergent downward trajectories before the Great Recession hit.

A third set of states on the East Coast has come up from behind to converge towards the national average—or rather meet the national average as it falls towards them. These states—New York, New Jersey, and DC—started out with comparatively low levels of dynamism but managed to mitigate further declines. Resiliency enabled them to narrow the gap.

Finally, North Dakota once again stands out as the only state to climb from below the national average to above it on the index. Its ascent into the elite ranks may be short-lived, however. The state's economic indicators have fallen back to earth since 2014. Yet the latest data suggest that North Dakota's "new normal" looks significantly better than its old normal, providing cause for optimism that the jolt of dynamism that accompanied the boom may have placed the state on a stronger economic trajectory for the years ahead.

Characteristics of a Dynamic State Economy

More dynamic state economies tend to be "newer" and have a younger demographic profile.

States that have seen strong population growth in recent decades tend to be significantly more dynamic than states that blossomed during prior periods of the country's economic development. The median age of a state's housing stock is negatively related to its index score, meaning that "older" states tend to be less dynamic than "newer" ones (correlation of -0.51).[9] Newer places not only tend to be in-migration hubs (itself a driver of business formation in locally-serving sectors) but many also specialize in emerging industries, as Colorado and Utah do.

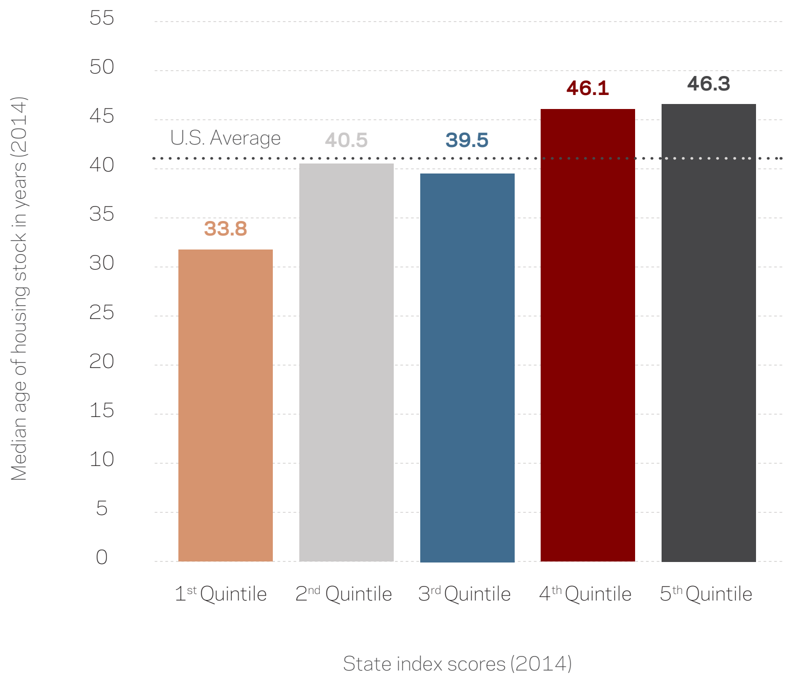
Key Findings

- More dynamic state economies tend to be "newer" and have a younger demographic profile.
- Manufacturing-intensive labor markets are associated with low levels of economic dynamism.
- More dynamic states have higher foreign-born shares of the population.
- Dynamism and prosperity tend to go hand in hand.

The median home in the most dynamic quintile of states was built in 1980 on average compared to 1968 in the least dynamic quintile. Within the top tier, Nevada has the youngest housing stock with a median age of only 23

9. All correlations reported here are simple pairwise correlations. Data on the median age of the housing stock comes from the U.S. Census Bureau's American Community Survey (ACS).

14. Median age of housing stock by ISD quintile



and California the oldest at 43. At the other end of the distribution, in the bottom quintile the median home in Pennsylvania was built in 1958.

More dynamic economies are often younger in another sense too: The median age of the population tends to be lower in states with more dynamic economies (a correlation of -0.42). These states seem to be more successful in attracting younger and more mobile workers and their families than less dynamic states are in retaining them. The median age in the 10 most dynamic states averages 36.1 years old; in the least dynamic it averages 39.2.[10] Dynamic Utah registers the youngest median age of all (30.6) and more lagging Maine the oldest (44.6).

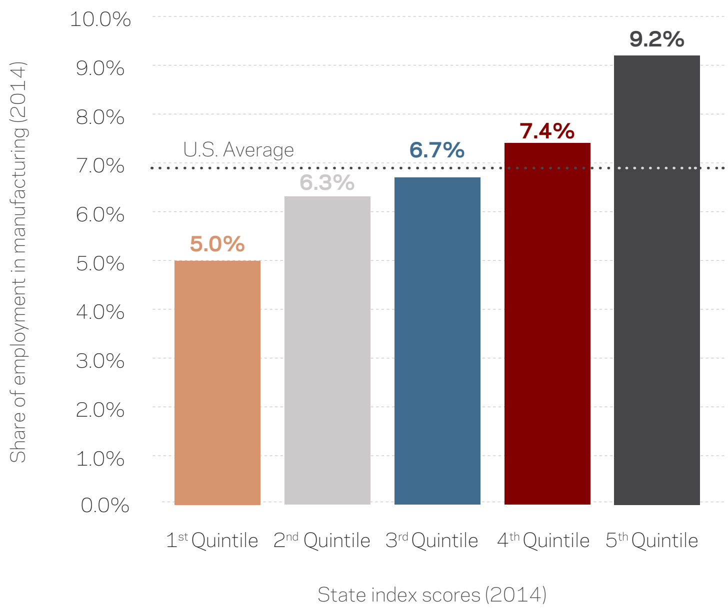
The relationship between youth and dynamism encapsulates one of the most pressing questions emerging from this report: How can we rekindle dynamism and reinvention in parts of the country that came of age during earlier waves of economic development?

Manufacturing-intensive labor markets are associated with low levels of economic dynamism.

States with high shares of employment in the manufacturing sector tend to exhibit lower levels of dynamism (-0.47 correlation). Only 5.0 percent of the workforce is employed in the manufacturing sector in the 10 most dynamic states on average, compared to 9.2 percent in the 10 least dynamic states. Relatedly, the information sector—which more than any represents

10. Data on median age comes from the ACS.

15. Share of state employment in the manufacturing sector by ISD quintile[11]



the frontier of the economy and includes most web-based and technology services companies—employs the smallest share of workers in the least dynamic states.

Manufacturing activity carries unambiguous benefits for the U.S. economy overall. But the clear relationship between high levels of manufacturing employment and low levels of local dynamism raises several questions. Why have places with long legacies in manufacturing found it harder to reinvent themselves for subsequent economic eras? Are certain types of manufacturing or configurations of manufacturing clusters more beneficial to local dynamism than others? How can manufacturing skills be redeployed into new and growing sectors? And how can public policy help manufacturing-intensive places build more diverse and adaptable economies? These are questions that deserve greater attention. But the finding itself provides important new context for the long-term decline in manufacturing employment in the United States (even as manufacturing output continues to reach new heights).

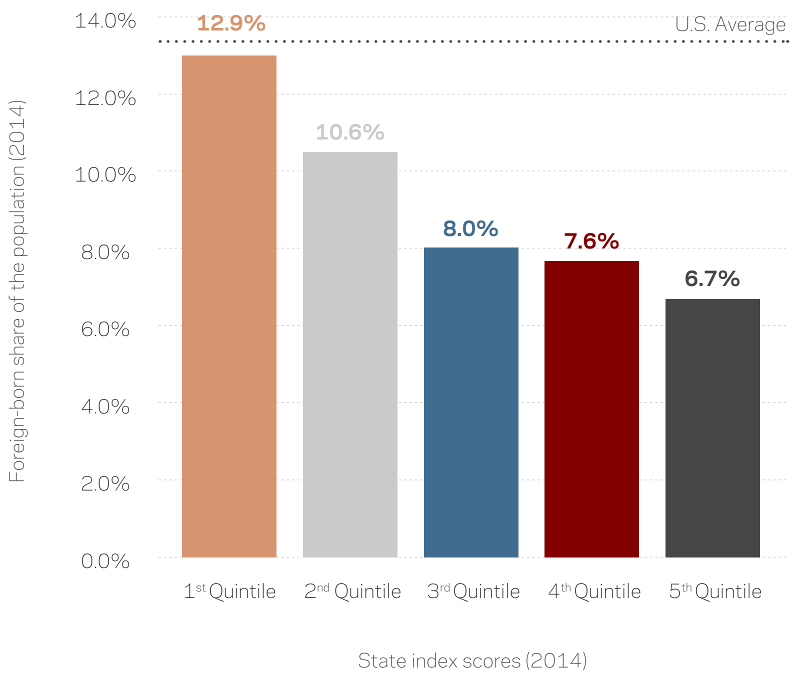
More dynamic states have higher foreign-born shares of the population.

States in which a larger share of the population is foreign-born tend to be more dynamic (correlation of 0.41).[12] In the 10 most dynamic states, nearly 13 percent of the population on average was born abroad. That compares to just 6.7 percent in the least dynamic quintile. Five of the top 10 states have higher foreign-born shares than the country as a whole: Nevada, Florida, Texas, California, and Arizona.

11. Figures represent share of total (encompassing all wage and proprietor, farm and non-farm, full- and part-time) employment. Source: Bureau of Economic Analysis.

12. Figures on foreign-born residents come from the ACS.

16. Share of state population born abroad by ISD quintile



At the other end of the distribution, West Virginia, which ranks last on the index, also ranks last for immigration from abroad with only 1.4 percent of its population foreign-born. All states in the bottom quintile fall well below the national average on this measure except Connecticut, whose foreign-born share is boosted by proximity to the New York metropolitan area, and Hawaii. Immigration likely boosts dynamism by bolstering population growth and because immigrants are far more likely than native-born residents to start a business.[13] While a large immigrant population alone is not sufficient to achieve economic dynamism, it seems to be a powerful ingredient.

Dynamism and prosperity tend to go hand in hand.

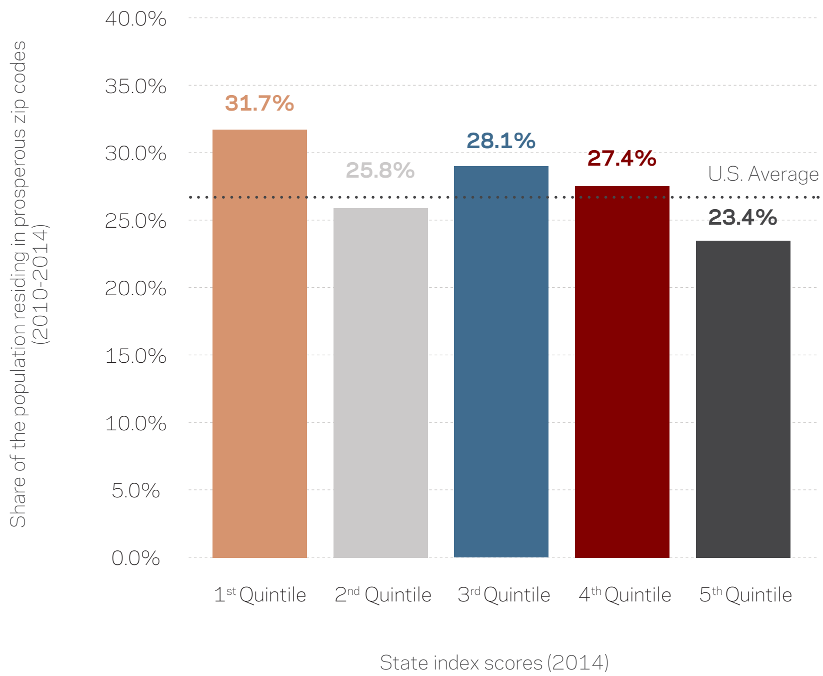
More dynamic states also tend to have larger shares of their populations living in prosperous zip codes (correlation of 0.32)—a relationship that holds especially true at the two ends of the distribution. EIG's **Distressed Communities Index** classifies all zip codes in the country based on seven metrics of economic well-being.[14] The one-fifth of zip codes that score highest are considered "prosperous"—places with low poverty rates, high educational attainment, high incomes, and high job growth.

Learn more at **EIG.org/DCI**

13. See for example the Kauffman Foundation's 2017 Index of Startup Activity, which finds that immigrants are twice as likely as native-born Americans to become entrepreneurs.

14. See more at eig.org/dci.

17. Share of the population residing in prosperous zip codes by ISD quintile



In general, larger shares of the population tend to live in such zip codes in high-dynamism states—nearly one-third in the most dynamic states on average compared to less than one-quarter in the least dynamic. There are exceptions, of course: New England is a high prosperity but low dynamism corner of the country, for example.

Larger shares of the population tend to live in prosperous zip codes in high-dynamism states.

Nevada, for its part, has a high share of its population (over 30 percent) living in prosperous zip codes, but it also combines its top-ranking dynamism score with the highest share of a state's population living in distressed zip codes too. The immediate aftermath of the recession likely inflated the levels of economic distress registered in the state, but the finding goes to show that dynamism alone does not guarantee inclusive economic development.

IV. Conclusion

We conclude with two questions. How serious a problem does the decline of dynamism represent? And what, if anything, can be done about it?

Some decline may be inevitable—and even benign—in a mature and prosperous economy, especially given U.S. demographic trends. We know, for example, that population growth and new business formation are linked, and the United States is currently experiencing its slowest population growth since the Great Depression. However, the steepness of the decline in dynamism sparked by the Great Recession compounded by the lack of bounce-back afterwards suggests that the economy's dynamism remains unnaturally depressed. This development at least in part underlies the low rates of innovation, weak GDP growth, waning competition, and widening geographic divides that have characterized the recovery period.

Furthermore, the findings here reveal nothing short of a fundamental departure from the entrepreneurial, mobile, and opportunistic traits that defined the most prosperous few decades of the most successful economy ever seen. This alone should be cause for concern.

These findings reveal nothing short of a fundamental departure from the entrepreneurial, mobile, and opportunistic traits that defined the most prosperous few decades of the most successful economy ever seen.

That brings us to potential solutions within our control. While there are no easy fixes for such a pervasive challenge, there are actionable measures available to nudge more entrepreneurs, innovators, and investors off the sidelines, dial up the degree of competition within industries, and empower people to again move to opportunity. For example, the policy and regulatory environment has—often inadvertently—established artificial barriers to entrepreneurship, geographic mobility, and a flexible labor market. In particular, the dense overgrowth of both noncompete agreements (which now cover an estimated 30 million workers) and occupational licensure (which now applies to an estimated 29 percent of U.S. jobs) serves mainly to strengthen the hand of entrenched incumbents while rigging the economy against workers looking to find a better job and entrepreneurs looking to deploy their expertise.

Policy makers can easily remove such barriers while also providing carrots to reward healthy risk-taking and encourage entrepreneurs and investors to seed new industries—especially in places that have fallen behind. Broad political and empirical support already exists for such solutions, but much more will need to be done at all levels of government.

If the findings in this report tell us anything, it is that time is of the essence.

V. Exploring the Index

Deep dive into the seven components of the ISD

BUSINESS CHURN

What is it:

Business churn is defined as the annual firm start rate plus the annual firm closure rate combined into a single metric that evaluates the rate of change in a state's business landscape (agnostic of whether, at the end of the day, more firms open or close).

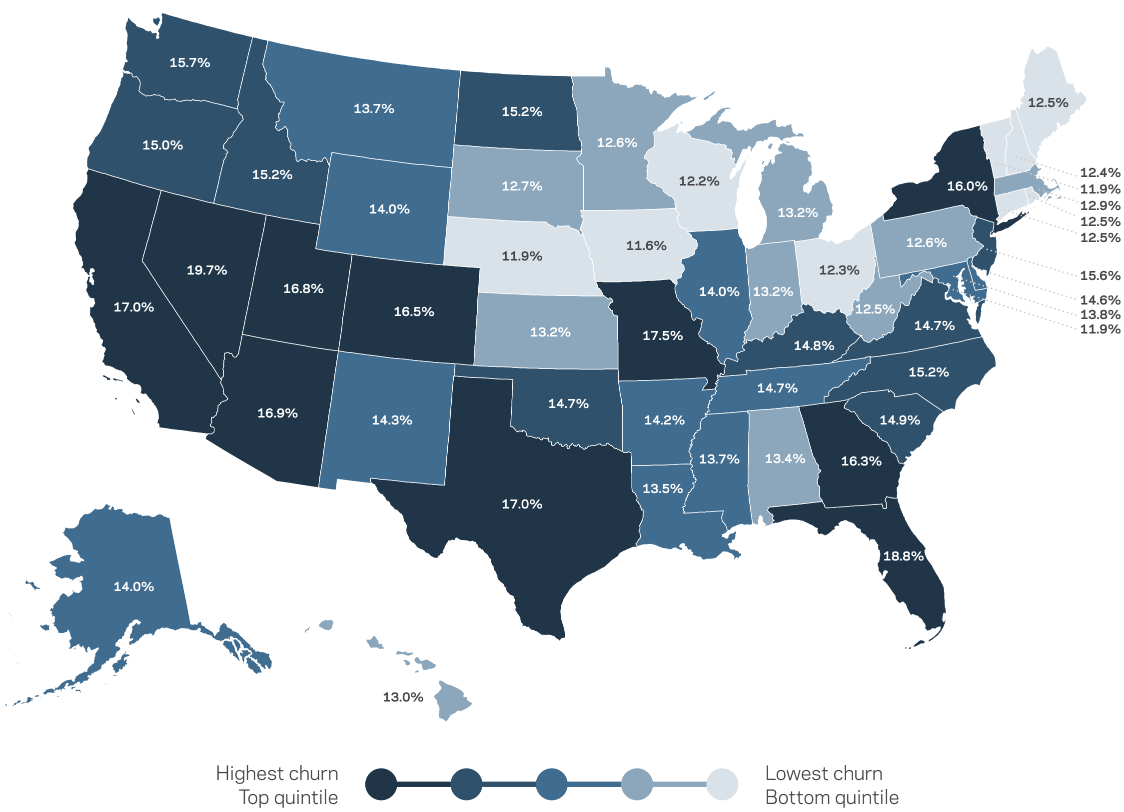
Key finding:

Nationally, the rate of churn among the country's businesses dropped from 19.5 percent in 1992 to 15.7 percent in 2014. Across the country today, companies open and close at the highest rate in the West.

2014 snapshot:

Churn runs lowest in the Upper Midwest, Great Lakes, and New England, where business landscapes are largely stable from year to year. By contrast, churn runs highest in the West, the South Atlantic, and Texas, with companies opening and closing at much higher rates.

18. Business churn by state, 2014



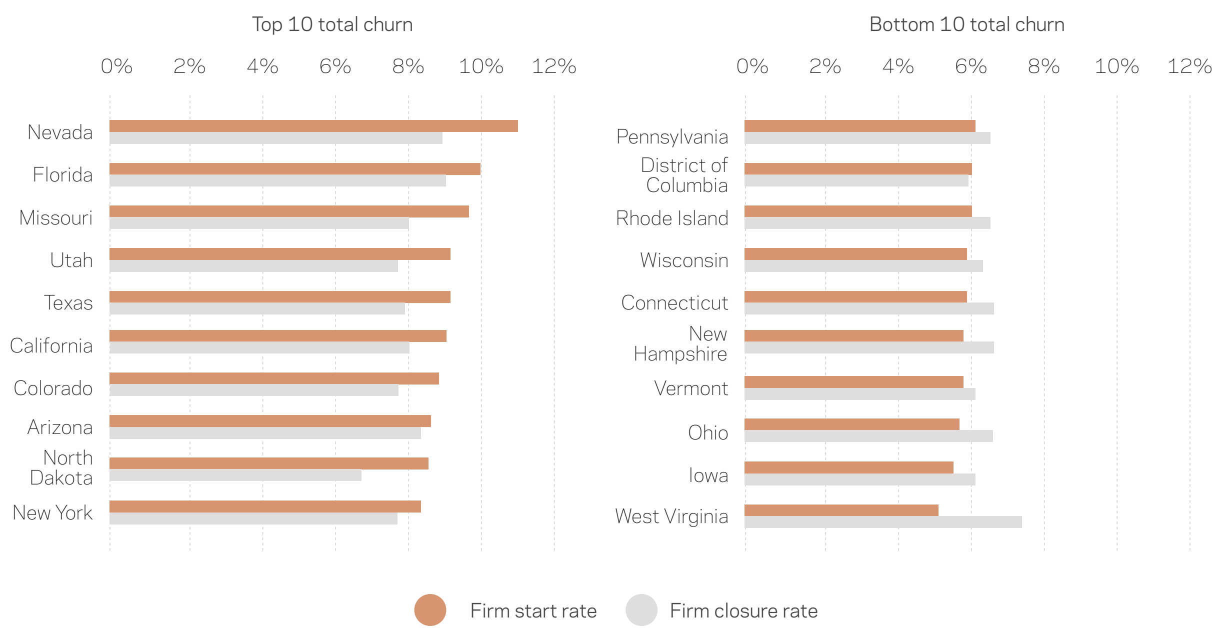
Drilling down:

High firm start and firm closure rates tend to go hand in hand. Nevada, Florida, Missouri, and Utah posted the highest rates of new firm starts (one component of the churn measure) in 2014, while Florida, Nevada, Arizona, and California posted the highest firm closure rates (the second component). In 2014 in the United States as a whole, 8.0 percent of all companies in the economy started that year and 7.7 percent of all companies in the economy closed that year. It is the process of firms opening and closing—and the reallocation of resources and economic activity among firms that that entails—that advances productivity and growth nationwide. Indeed, states with higher rates of overall churn are much more likely to see firm starts outpace firm closures than places where churn is more muted. High levels of churn are associated with expansion; low levels with contraction.

Did you know:

Firms have closed at a relatively predictable rate over the past 40 years; the variable is the rate at which they open—and it is the firm start rate that has fallen over time and driven the downward trajectory of dynamism nationwide (in fact, nationally the firm formation rate was twice as high in the late 1970s and early 1980s as it is today). The firm closure rate, for its part, has held pretty steady everywhere. In nearly every case, states in which closures outnumber openings suffer from too few new companies being born rather than too many existing ones dying out.

19. Firm opening and closure rates by state, 2014



CHANGE IN FIRMS

What is it:

Percent change in the total number of companies within a state.

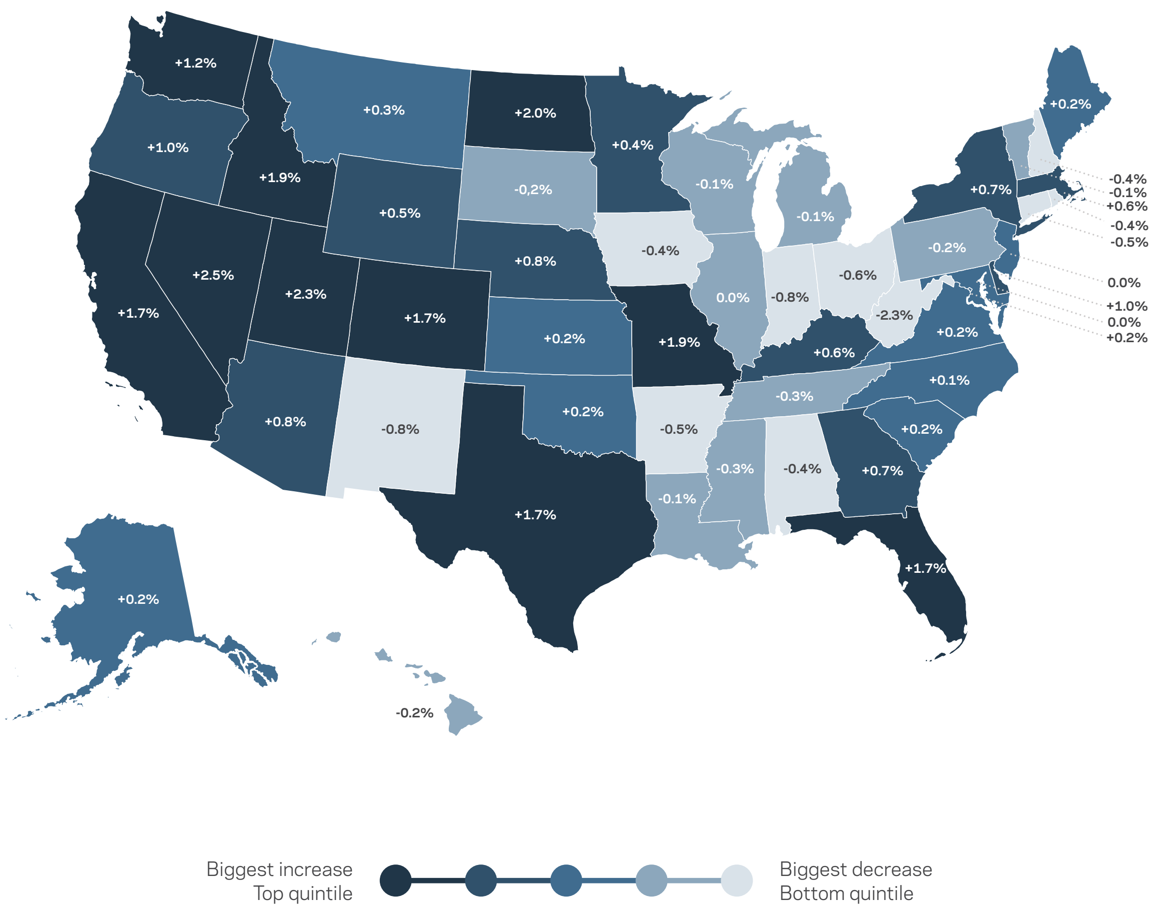
Key finding:

Despite steady GDP and job growth nationally, the total number of companies declined in two-fifths of states in 2014.

2014 snapshot:

Nevada and Utah added firms at the fastest rate in 2014, while West Virginia, New Mexico, and Indiana saw the fastest declines.

20. Change in the number of firms by state, 2014



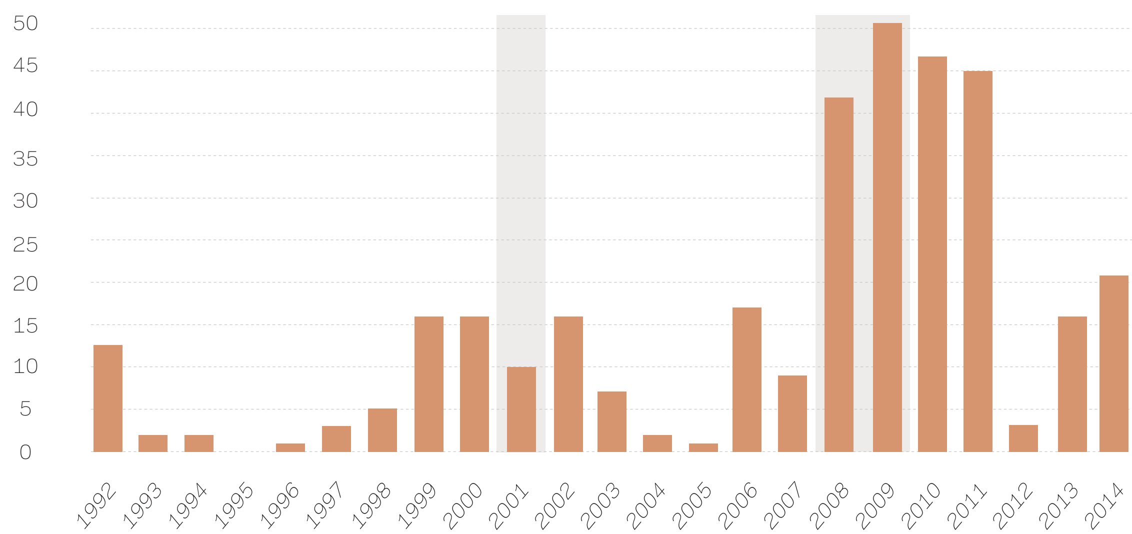
Drilling down:

The Great Lakes and Mississippi River Basin in particular seem to be struggling to spawn firms faster than they close through the natural course of competition and economic change. Other states—California and New York, in particular—have gone from being laggards to leaders when it comes to the business of firm generation over the course of this study. Having struggled along with other "big city" economies in the 1990s, these states have again come into their own to lead national growth statistics post-recession.

Did you know:

In the past, the majority of states saw rising numbers of firms each and every year. That changed dramatically with the Great Recession as 40 or more states saw a net decline in firms from 2008 to 2011. So far, the current recovery looks more like past recessions than a normal period of expansion in terms of firm growth.

21. Number of states with decreasing numbers of firms



JOBS IN NEW COMPANIES

What is it:

Share of the employed population working in firms that started in the past year.

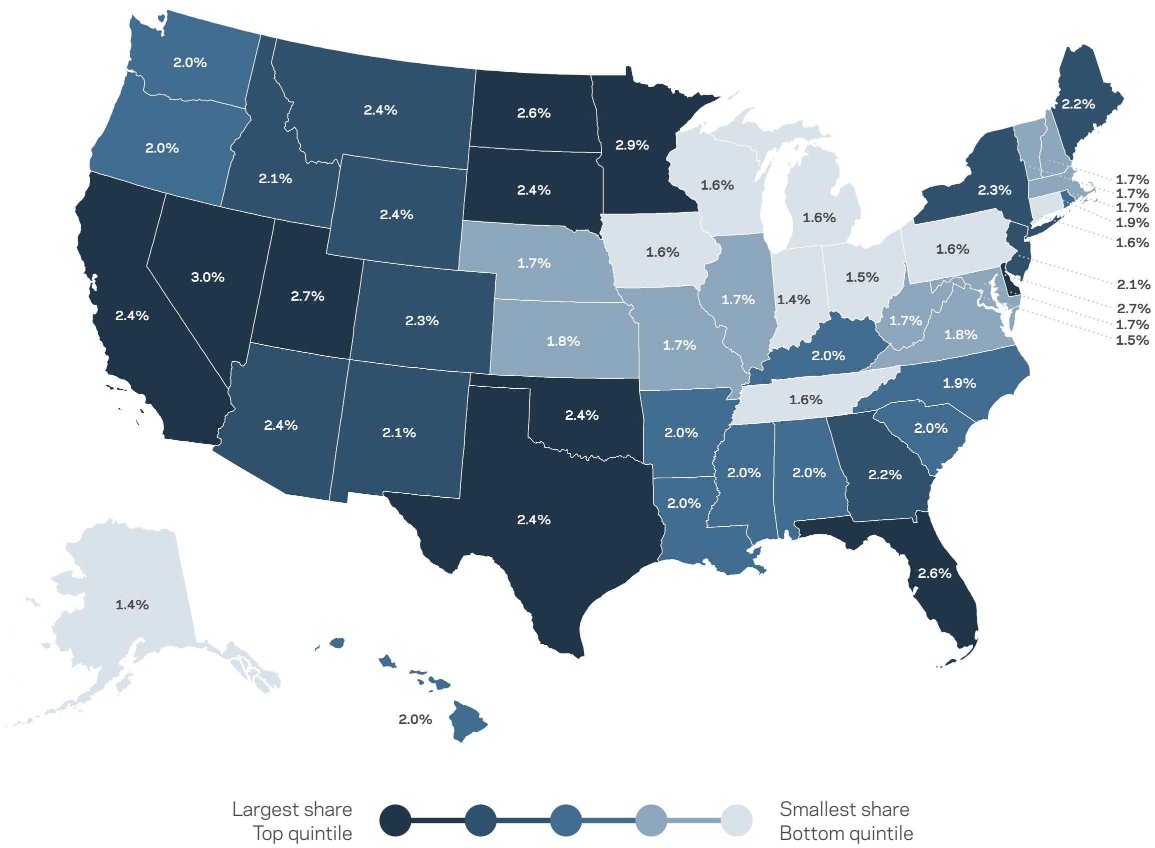
Key finding:

The lowest levels of employment in new companies can be found in a contiguous stretch from Pennsylvania to Nebraska.

2014 snapshot:

New companies employ the greatest share of the workforce in the West, but Central states that benefitted from drilling activity in 2014 also rank highly on this metric. Large swathes of the Great Lakes and Midwest stand out for having very small shares of their workforces employed by new companies.

22. Jobs in new companies by state, 2014



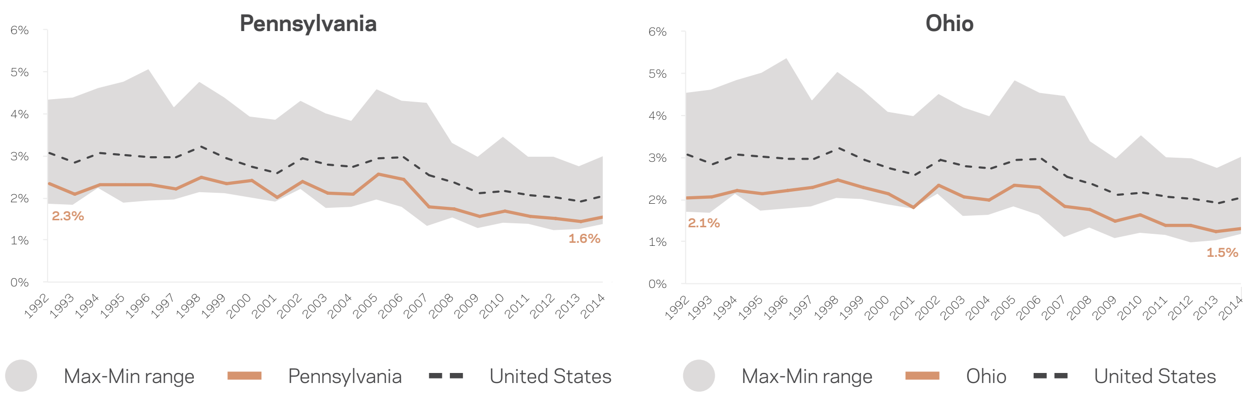
Drilling down:

New companies consistently pack the biggest employment punch in Nevada, Utah, and Florida. Minnesota and Delaware perform strongly in 2014, but that year appears as an outlier on their long-term trajectories. In states such as Connecticut, Indiana, Ohio, and Pennsylvania, new companies consistently employ only small fractions of the workforce, suggesting that these states could boost job creation considerably by fostering more entrepreneurship.

Did you know:

Many incorrectly assume that the present is the "golden age of startups," a perception likely fueled by a small number of high-profile new tech companies. In reality, however, the share of the employed population working in a newly-formed company remains near the all-time low reached in 2013—1.9 percent of the workforce then, 2.1 percent now—and 31 states had lower employment shares in new companies than the nation as a whole in 2014. By comparison, 3.1 percent of the workforce was employed in a new firm in 1992.

23. Jobs in new companies as a share of total jobs in Pennsylvania and Ohio, 1992 to 2014



JOBS IN INCUMBENT COMPANIES

What is it:

The share of the employed population working in a firm at least 16 years old.[15]

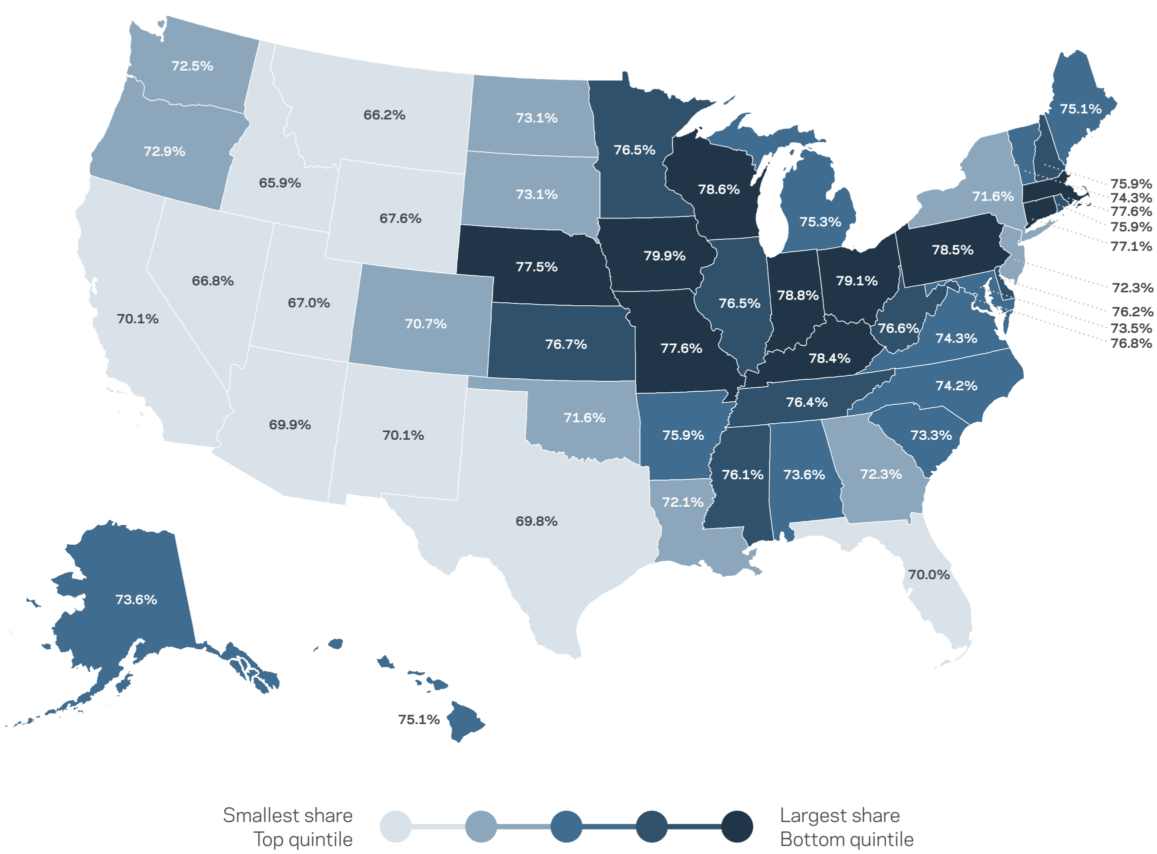
Key finding:

Incumbent firms dominate the employment landscape in the Ohio and Mississippi River Basins.

2014 snapshot:

In almost a mirror image of the map of jobs in new companies, older firms dominate the labor market in the Great Lakes and Mississippi River Basin. The Mountain West economy is least dominated by aging firms—although even there two-thirds of all jobs are still found in firms at least 16 years old—followed by the Southwest. New York stands apart on this metric with the lowest incumbent share in the East after Florida.

24. Share of state employment in incumbent firms (at least 16 years old), 2014



Drilling down:

Incumbency is positively correlated with manufacturing industry presence and the median age of the housing stock, meaning that older and more industrial economies tend to be dominated by older (and also presumably larger) firms, too. This suggests, intuitively, that as new companies fade from a state, incumbents loom progressively larger over the economic landscape.

Did you know:

The share of all U.S. jobs provided by firms at least 16 years old is increasing at a nearly constant rate of 0.5 percentage points each year and is now approaching 75 percent, showing no signs of slowing. Some states are well ahead of this trend: In 2017, mature incumbent companies almost certainly provide upwards of 80 percent of all jobs in Iowa, Ohio, Indiana, and Wisconsin. The trend may have some upsides—jobs in these firms may be relatively stable, for example—but the trend also carries downsides and risks: Such firms are likely to be less agile and less innovative than younger ones. They may be more vulnerable to asymmetric, unexpected shocks. And in net terms, established companies tend to shed jobs every year while new companies drive the vast majority of net job growth.

15. Methodological note: This figure enters the index as its inverse (the share of the employed population not in an incumbent firm) since incumbency is associated with lower levels of dynamism.

LABOR MARKET CHURN

What is it:

Labor market churn measures the proportion of the workforce that changes employers as a result of company closings, openings, expansions, and contractions each year. In other words, it provides a gauge of business dynamics' labor market impact and the speed with which workers get reallocated across firms.

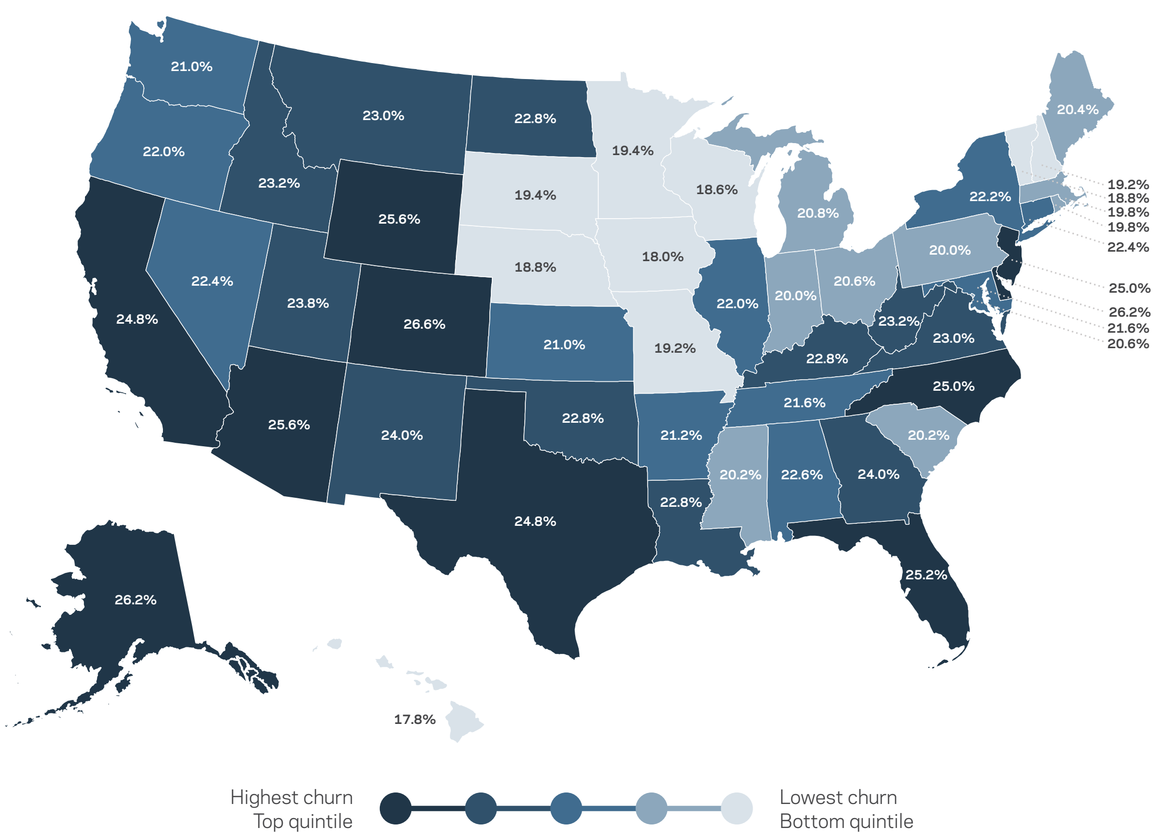
Key finding:

Labor markets are most fluid in states such as Colorado and North Carolina with reputations for having strong economies and good job opportunities.

2014 snapshot:

Labor market churn runs highest in an assortment of states with strong economies and deep, typically highly-skilled labor markets: Arizona, California, Colorado, Delaware, New Jersey, and North Carolina, for example. Labor market turnover is most muted in the Upper Midwest.

25. Labor market churn by state, 2014



Drilling down:

Colorado rises to the top on this metric thanks to its robust and changeful labor market. North Carolina stands out as the most dynamic actor in the Southeast after Florida, and California and Arizona pull ahead of Nevada on this measure. Turnover runs high in New Jersey and Delaware as well, especially relative to neighboring Pennsylvania. Minnesota and Missouri, generally some of the top performers in the Midwest on other measures, fall to the bottom here.

Did you know:

Contrary to popular belief, workers today switch jobs less frequently and stick with their employers for longer than in the past. Nationally, the intensity of labor market churn started falling in 2002, and its descent accelerated with the Great Recession. The economy now reallocates workers across employers at historically low rates: Labor market churn is down by a quarter relative to before the recession, and it is down much further relative to longer historical trends.

While labor market stability can have its upsides, in aggregate declining churn has negative implications for productivity and wage growth economy-wide, as workers are more likely to stay in sub-optimal arrangements for longer. At the high end of the labor market, lower churn means lower-velocity career trajectories. At the lower end of the labor market, it means fewer chances to find a rung on the ladder of opportunity. Low levels of churn disadvantage young, low-skilled, unemployed, and other individuals marginally attached to the labor market most.

LABOR FORCE PARTICIPATION

What is it:

The share of the adult civilian population either in or looking for work.

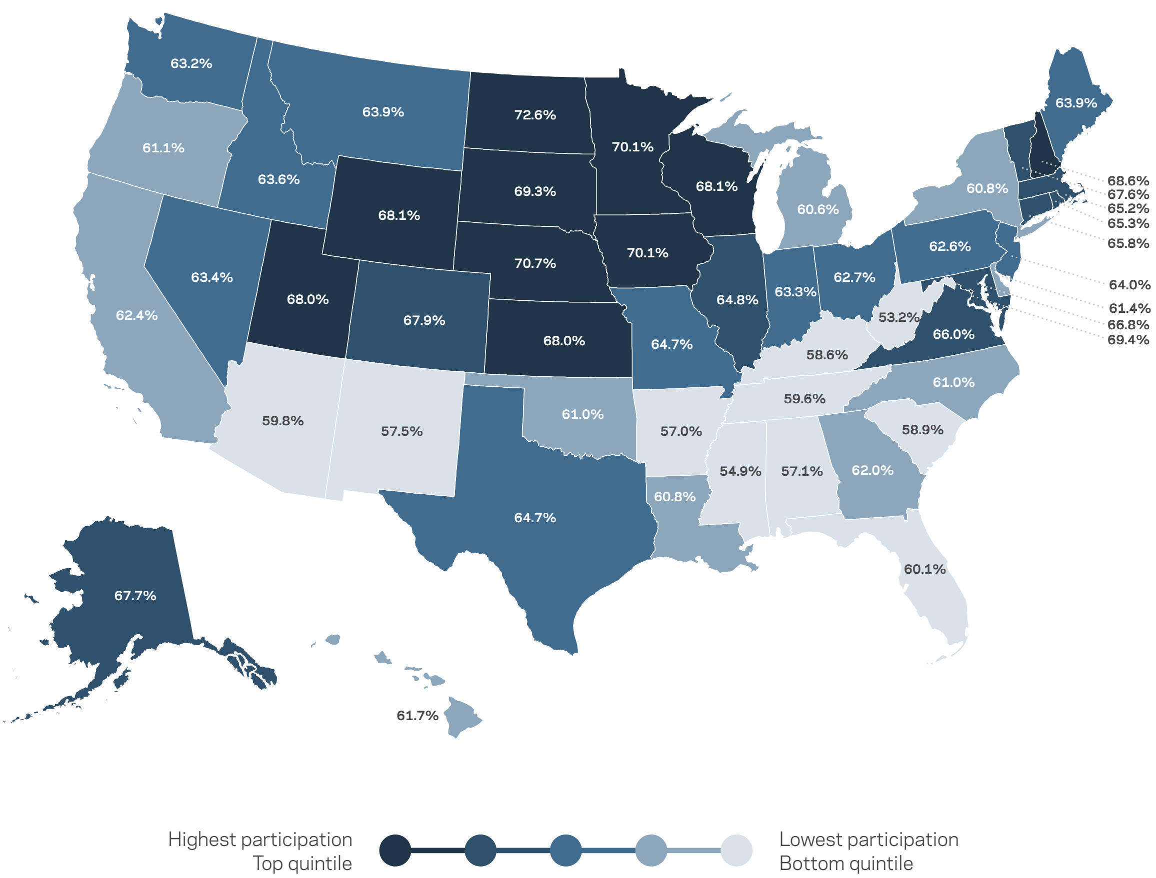
Key finding:

Southern states started and ended the study with the lowest labor force participation rates, and they also racked up the steepest falls in between.

2014 snapshot:

North Dakota and Nebraska posted the highest labor force participation rates, with over 70 percent of the adult population either in or looking for work. In West Virginia, by contrast, barely half—53.2 percent—of the adult population was in the labor market. In Mississippi, the situation was little better.

26. Labor force participation rate by state, 2014



Drilling down:

Nationally, labor force participation peaked in the late 1990s at 67.1 percent before falling to 63 percent, a modern low, in 2014. The national decline is driven partially by demographics, but a significant portion of the trend remains unexplained. Regardless of its roots, there's a clear North-South divide on this measure, with the highest participation in the Northern Plains. Interestingly, labor force participation runs exceptionally high in many of the same places where labor market churn runs lowest nationwide. In places like Minnesota, for example, employment opportunities appear to be both plentiful and remarkably stable—a finding that is worth exploring further. Colorado, at any rate, represents the best of both worlds in the labor market by combining high rates of turnover with high labor force participation. Finally, North Dakota and DC were the only two states in the country in which labor force participation increased from 1992 to 2014.

Did you know:

Labor force participation correlates strongly (correlation of 0.81) with overall economic well-being, as measured in EIG's Distressed Communities Index as the share of a state's population residing in a prosperous zip code. Strong economies, it seems, both support and are fueled by high levels of economic engagement via the labor market.

27. Labor force participation rate by share of population in prosperous zip codes

NET MIGRATION

What is it:

Net number of people moving to or from a state per 1,000 residents, excluding movers to or from abroad.

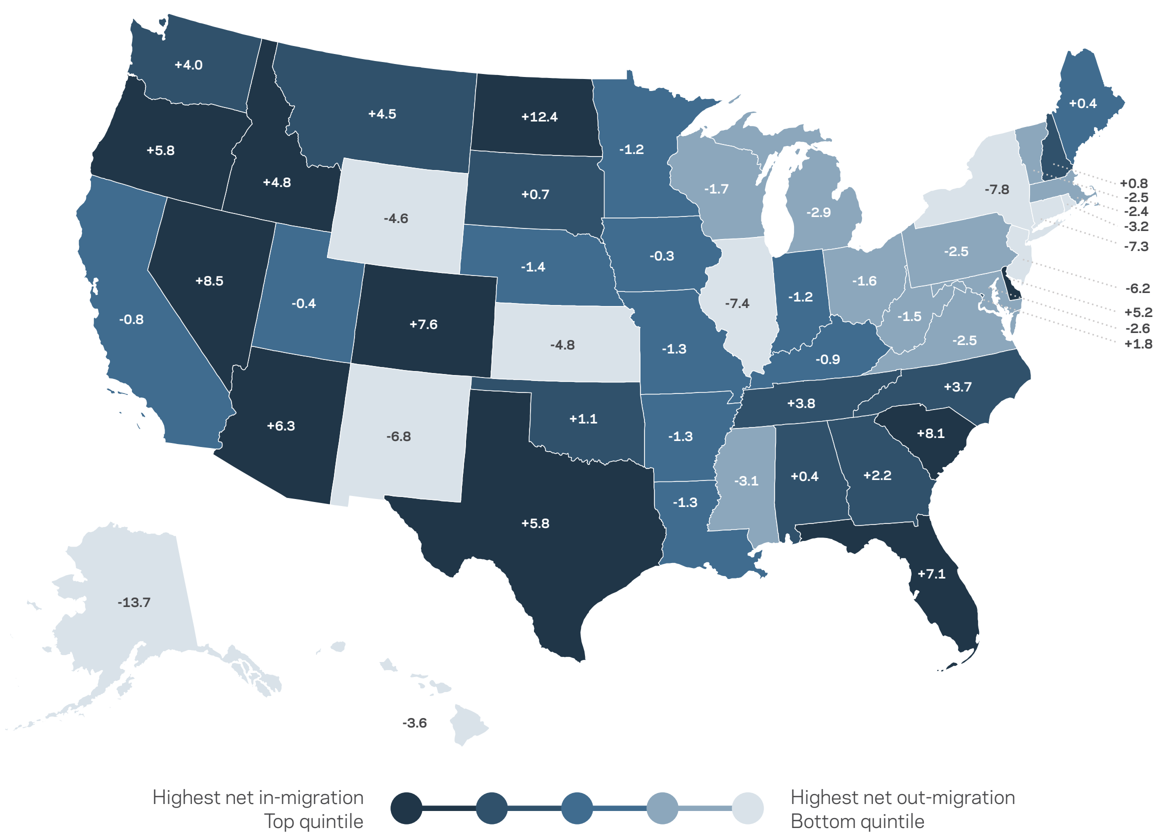
Key finding:

In a trend that pre-dates the Great Recession, inter-state migration has slowed considerably over time and migration rates have converged across states.

2014 snapshot:

Still-booming North Dakota led the nation in attracting newcomers in 2014, followed by Nevada and South Carolina. Conversely, a much broader swathe of the country than the “Snow Belt” lost population. The Mid-Atlantic, Ohio and Mississippi River Basins, and a handful of Western states all exported people to the Northwest, Mountain West, Texas, and South Atlantic.

28. Net domestic migration rate by state, 2014



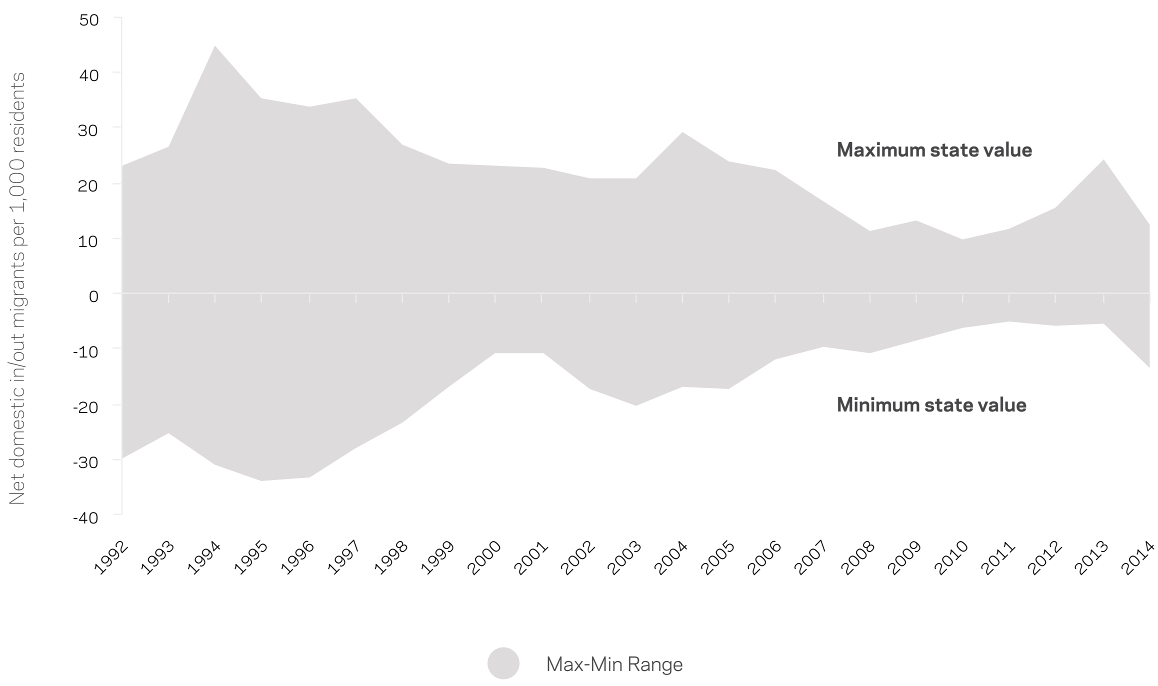
Drilling down:

Far fewer people are leaving the Northeast and California today than were in the 1990s, so the relative position of these states has improved significantly on this metric. Similarly, domestic migration recently turned positive in New Hampshire and Maine after long periods of depopulation. The West still leads the nation for in-migration, but relative to historical levels domestic migration rates have fallen fastest in that region—and nowhere faster than New Mexico, whose economy has lost considerable dynamism over time.

Did you know:

The interstate migration rate has fallen by half over the past three decades and now languishes near its all-time low. As fewer and fewer people move, migration rates have converged across states, too. In 1992, Nevada had 22.8 newcomers from other states for every 1,000 residents and Idaho 16, while Connecticut hemorrhaged 12.2 people for every 1,000 residents and DC a remarkable 29.8. Compare that range to 2014. In that year, Nevada (the top state for population growth after North Dakota) welcomed only 8.5 new residents per 1,000—nearly one-third its erstwhile rate. Alaska, on the other hand, is now the state most at risk of depopulation. It lost 13.7 residents per 1,000 in 2014—a drastic uptick over the prior year. New York followed, with a domestic net migration rate of -7.8.

29. Range of net migration rates across states over time



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