# FROM GREAT RECESSION TO GREAT RESHUFFLING: CHARTING A DECADE OF CHANGE ACROSS AMERICAN COMMUNITIES

Findings from the 2018 Distressed Communities Index

October 2018



# I. Introduction

The **Distressed Communities Index** (DCI) is a comparative measure of the vitality and wellbeing of U.S. communities.

Drawing from the U.S. Census Bureau's American Community Survey's 5-Year Estimates and Business Patterns data, this year's analysis compares two time periods: 2007-2011 and 2012-2016. The findings come at an important milestone: the 10-year anniversary of the financial crisis that transformed our economy, our politics, and our society in ways few could have expected a decade ago. For American communities, the two time periods studied here roughly correspond to the shared experience of the recession and the deeply divergent experiences of the recovery.

Amid the reshuffling wrought by the fractured recovery, educational attainment has emerged as the sharpest fault-line separating thriving communities from struggling ones. Urban areas are ascendant, rural areas are in flux, and suburbs retain their outsized claim on the map of U.S. prosperity. The returns to initial community advantage are increasing, as growth chases growth and recovery is slower to diffuse across the map than in the past.

This changeful decade offers grounds for both pessimism and optimism. For the optimists: Americans are increasingly clustered in well-off locales, and those areas are enjoying extraordinary prosperity and dynamism. What is more, this demographically diversifying country is unevenly but steadily growing its way into a more inclusive economy. For the pessimists: The gaps in well-being between thriving and struggling communities have widened at seemingly every scale. As we make progress bridging old divides, new ones are opening on different fronts. What was once a country of disparate places that converged towards prosperity is now a country of places drifting further apart.

The U.S. economy is both resilient and remarkable. Ten years into the recovery from the Great Recession, however, unfinished business can be found on every corner of the map.

# I. Methodology

The DCI combines seven complementary metrics into a holistic measure of comparative community economic well-being. The components are:

#### No high school diploma:

Percent of the 25+ population without a high school diploma or equivalent

#### Housing vacancy rate:

Percent of habitable housing that is unoccupied, excluding properties that are for seasonal, recreational, or occasional use



#### **Adults not working:**

Percent of the prime-age (25-64) population not currently employed

#### **Poverty rate:**

Percent of the population living under the poverty line

#### **S** Median income ratio:

Median household income as a percent of the state's median household income (to adjust for cost of living differences)



#### **Change in employment:**

Percent change in the number of jobs



Percent change in the number of business establishments

Each component is weighted equally in the index, which is calculated by ranking communities on each of the seven metrics, taking the average of those ranks, and then normalizing the average to be equivalent to a percentile. Distress scores range from approaching zero to 100.0, such that the zip code with the average rank of 12,500 out of 25,000 will register a distress score of 50.0. Communities are then grouped into quintiles, or fifths. The best-performing quintile (with distress scores of 0 to 20.0) is considered "prosperous," the second-best "comfortable," the third "mid-tier," the fourth "at risk," and the fifth, or worst-performing (with distress scores of 80.0 to 100), "distressed."

The underlying data comes from the U.S. Census Bureau's American Community Survey 5-Year Estimates and Business Patterns products. In all, the DCI captures 99 percent of the U.S. population and all 25,800-plus zip codes with at least 500 residents.

For a full description of the methodology underlying the DCI, see eig.org/dci/methodology.

# III. Where are we now?

#### 86.5 million Americans live in a prosperous zip code and 50 million Americans live in a distressed one.

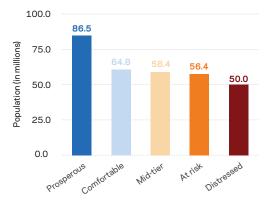
Americans cluster in well-off communities. The number of people residing in each quintile rises as well-being improves on the index such that a plurality of 86.5 million, or 27.4 percent of the U.S. population, lived in a prosperous zip code during the 2012-2016 period. That represented a nearly 22 million person advantage over the next most populous tier of communities, comfortable ones. Fifty million Americans, or one in six, lived in a distressed zip code during the period.

Figure 1 shows that the gaps between communities revealed by the DCI are substantial. Distressed and prosperous zip codes don't simply represent two ends of a statistical spectrum; they represent two almost diametrically opposed experiences of living in the United States today. An additional fifth of the adult population in the average distressed zip code was out of work compared to the average prosperous one, for example. An additional 10 percent of homes stood vacant. The gaps between adjacent quintiles was frequently stark as well. Consider the graduation from mid-tier to at risk: the average zip code in the former quintile performed better than the national average on most indicators, while the average zip code in the latter performed significantly worse.

	Adults w/o a High School Diploma	Poverty Rate	Prime-Age Adults Not in Work	Housing Vacancy Rate	Median Income Ratio	Change in Employment	Change in Establish- ments
Prosperous	5.4%	6.0%	20.5%	4.7%	146.1%	19.5%	10.6%
Comfortable	9.1%	9.8%	24.2%	6.9%	111.2%	11.3%	6.0%
Mid-tier	12.3%	13.5%	28.0%	8.9%	94.7%	7.9%	4.1%
At risk	16.3%	18.2%	33.4%	10.8%	82.7%	4.8%	1.9%
Distressed	21.9%	26.3%	41.5%	14.7%	68.2%	-3.6%-	4.7%
United States	13.0%	15.1%	27.6%	8.2%	100.0%	9.3%	4.4%

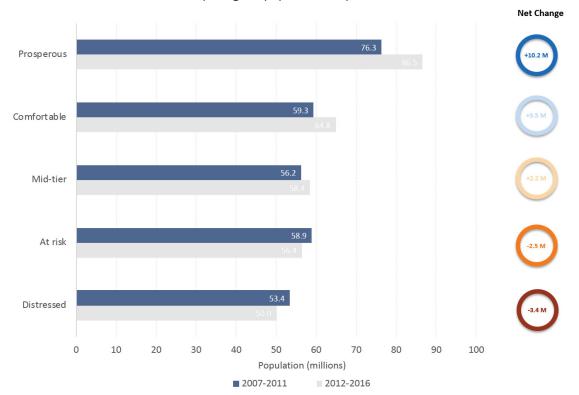
1. Performance of the average zip code in each quintile across the seven component metrics of the DCI (2012-2016)

Prosperous communities were overwhelmingly suburban in nature: 52 percent of the population in this quintile lived in a medium density zip code. Comfortable zip codes—those in the second highest fifth of well-being—were more evenly distributed across rural, urban, and suburban locations. Of the 50 million Americans in distressed zip codes, 17.9 million lived in urban areas, 22.7 million in rural areas, and 9.4 million in suburban ones. 2. Population in each quintile (2012-2016)



#### The number of Americans living in prosperous communities increased by 10 million between the two periods.

Perhaps the most obvious sign of the Great Reshuffling was the unmistakable shift in the locus of prosperity towards more populous areas between the two periods. From 2007 to 2011, one-quarter of the country's population resided in what was considered a prosperous zip code at the time. By 2012 to 2016, the figure had swelled to 27.4 percent, an increase of 10.2 million people. The share of the population in comfortable and mid-tier zip codes also rose substantially, while that in at risk and distressed zip codes fell. In total, the top three quintiles added nearly 18 million people, while the bottom two shrunk by nearly 6 million.



3. Comparing the population in quintiles over time

These population shifts are the product of two different factors. The first factor encompasses population dynamics within zip codes—that is, natural increases or decreases in population due to births, deaths, and migration. Zip codes that scored as prosperous during the 2012-2016 period increased their population by 6 million between the two periods thanks to these dynamics. As the country's population itself rose by 12 million, all tiers of communities experienced some natural population growth.

The second factor—composition effects—completes the picture. The composition of zip codes in each quintile changed substantially between the two periods. The group of zip codes that ranked as distressed in the later period contained fewer people all together than the substantially different group of zip codes that ranked as distressed in the earlier one, for example. Vice versa for prosperous. Simply put, more populous zip codes were more likely to rise on the index and knock less populous ones down, contributing to population increases in the upper quintiles and decreases in the lower ones.

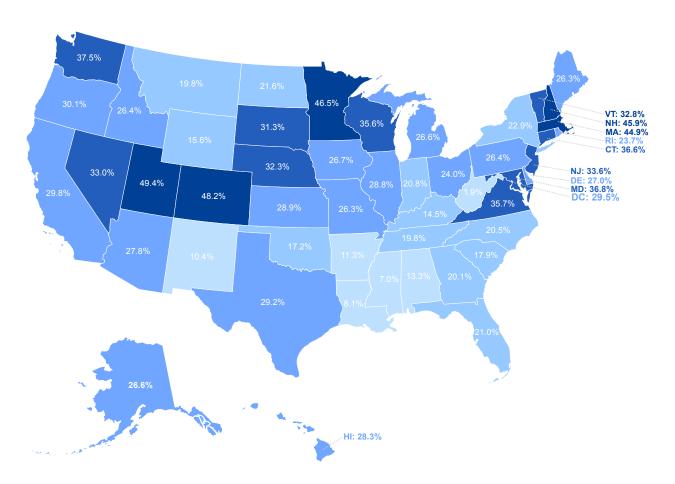
Therefore, the decrease in total population in distressed zip codes did not signal a substantial out-migration from struggling communities. Instead it reflected an intensifying ruralization of distress as the well-being of more sparsely populated communities deteriorated relative to more populous and denser ones. Even as the total number of Americans in distressed zip codes fell between the two periods, the number of rural Americans living in a distressed zip code increased by nearly 1 million.

## Utah leads the nation on relative prosperity, while California saw the largest number of residents advance into the quintile over the recovery.

All five tiers of well-being captured by the DCI could be found in every state, but the quintiles did tend to cluster in different regions. Prosperous zip codes were more likely to be found toward the north and the west, and distressed zip codes toward the south and the east. Nevertheless, residents of the average state were more likely to live in a prosperous zip code than any other quintile. The average state housed 27 percent of its population in prosperous zip codes during the 2012-2016 period, mirroring the national level. From there, 18 percent of the population of the average state resided in mid-tier zip codes, and 14.5 percent in distressed ones. In spite of the many changes in the economy between the two periods studied, these averages remained relatively stable, reflecting the fact that prosperity was generally more widespread and distress generally more concentrated in the United States during both periods.

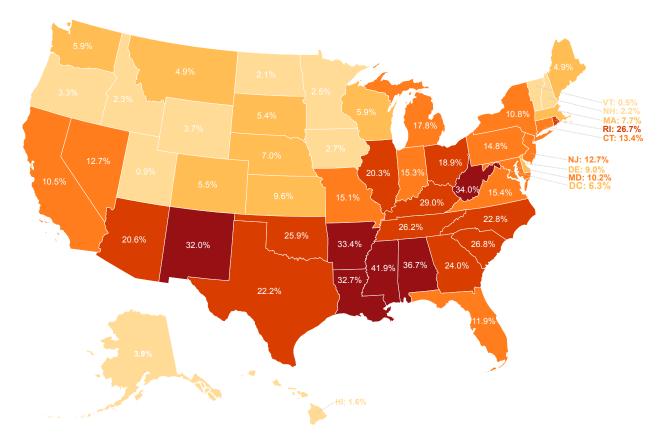
In absolute terms, California saw the greatest shift towards prosperity as the number of Californians living in prosperous zip codes rose by 3.2 million between the two periods—thanks in large part to the technology boom—and the number living in distressed zip codes fell by a similar amount—thanks in large part to the gradual resolution of the housing crash.

Utah, however, stood out for both having the highest share of any state's population living in a prosperous zip code—essentially half—and for experiencing the largest relative increase in prosperity, as that share improved by nearly 18 percentage points between the two periods. Utah's performance was emblematic of the widespread advances in economic well-being enjoyed across much of the West, especially in metropolitan areas.



4. Share of each state's population residing in prosperous zip codes (2012-2016)

At the other end of the spectrum, Louisiana, New Mexico, and West Virginia saw even more of their zip codes fall into the distressed category between the two periods and the distressed share of their populations rise accordingly. They joined Alabama, Arkansas, and Mississippi to bring the number of states with approximately one-third or more of residents living in distressed communities to six. Florida, Georgia, and Nevada, on the other hand, saw significant improvements as the share of their residents living in distressed zip codes fell by at least 10 percentage points each between the two periods, thanks in large part to the passing of the housing crisis that disproportionately affected them during the 2007-2011 period.

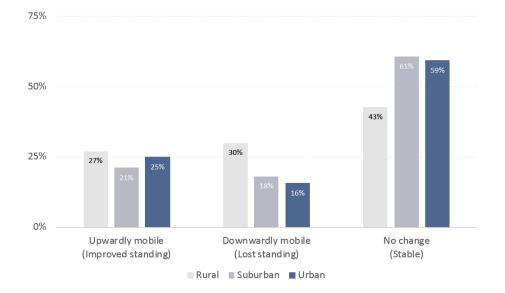


5. Share of each state's population residing in distressed zip codes (2012-2016)

In the end, prosperous zip codes were home to more people than any other quintile in a total of 25 states. That figure held steady between the two periods. Distressed zip codes hosted the largest contingent in 11 mostly southeastern states—an increase from 8 states during the 2007-2011 period. North Carolina emerged the only state home to more people in at risk zip codes than any other quintile during the 2012-2016 period. Delaware, Idaho, and Indiana were the three states in which residents of mid-tier zip codes outnumbered any other.

## Rural areas experienced the strongest swings in economic well-being between the two periods.

Mobility on the index differed in revealing ways between rural, suburban, and urban communities. Rural zip codes were the most volatile, registering the greatest upward and downward mobility, and were the least likely to remain in the same quintile over the two periods. Rural communities were nearly twice as likely as urban zip codes to drop by a quintile or more on the index. Suburban zip codes saw the most stability, with 3 out of every 5 remaining in the same quintile over time. Urban zip codes enjoyed similar stability, as well as the least downward mobility, attesting to the city-centric nature of the recovery.



#### 6. Percent of zip codes that changed their quintile between the two periods

In general, economic well-being was most stable at either end of the spectrum on the DCI. Slightly more than two-thirds of the zip codes that were prosperous in the first period were prosperous in the second, and just under two-thirds remained distressed if they started there. Compare that to mid-tier zip codes in the 2007-2011 period, only 35 percent of which remained mid-tier in 2012-2016. A quarter of the cohort graduated to become comfortable, and a quarter fell into the at risk category. Only 6 percent of zip codes that were mid-tier in the 2007-2011 period had become prosperous by 2012-2016—less than the 9 percent that became distressed.

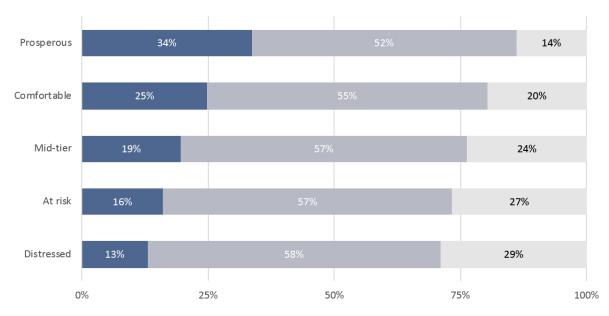
	Prosperous in 2012-2016	Comfortable in 2012-2016	Mid-tier in 2012-2016	At risk in 2012-2016	Distressed in 2012-2016
Prosperous in 2007-2011	67%	24%	7%	2%	0%
Comfortable in 2007-2011	25%		24%	10%	2%
Mid-tier in 2007-2011	6%	25%		25%	9%
At risk in 2007-2011	1%	9%	25%	38%	27%
Distressed in 2007-2011	0%	2%	9%	27%	62%

#### 7. Zip code mobility across quintiles between the two periods

At the elite end of well-being, it seems that prosperity was much more durable in some types of communities than others: 82 percent of suburban prosperous zip codes and 78 percent of urban prosperous zip codes remained prosperous over time. A prosperous rural zip code, on the other hand, had little better than a 50-50 chance at remaining prosperous. Distress, however, also proved stickier for urban and suburban zip codes than for rural ones. It seems that the rungs on the ladder of community well-being are farther apart for city and suburban zip codes; for rural zip codes, they may be closer together—but they are also more slippery.

## Prosperous zip codes were home to the greatest number of professional workers and at risk zip codes the greatest number of blue collar ones.

Prosperous zip codes were home base to the country's managerial, professional, and creative classes. Just over one-third of working adults in prosperous zip codes were employed in management, business, science, computer, legal, arts, entertainment, and media occupations during the 2012-2016 period, compared to 23 percent nationally. In fact, 43 percent of all individuals in such occupations lived in prosperous zip codes. Individuals in other corners of the services sector—in education, healthcare, sales, and office support occupations, for example—were more evenly distributed across types of communities. Individuals in distressed zip codes were more likely to be employed in physically demanding lines of work; 3 out of 10 employed adults in these communities worked in such classically blue collar jobs as production, construction, transportation, and maintenance occupations. In absolute terms, however, the largest number of blue collar workers—6.5 million—lived in at risk zip codes.



#### 8. Occupational breakdown of employed adults across quintiles (2012-2016)

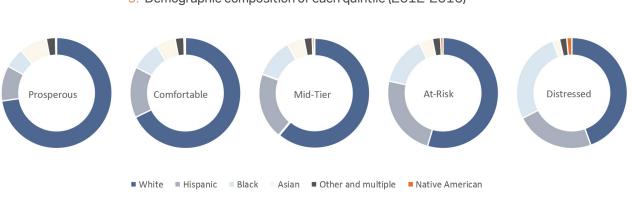
■ Management, business, science, legal, arts, entertainment, and media occupations

Education, healthcare, service, sales, and office occupations

Production, transportation, mining, construction, and maintenance occupations

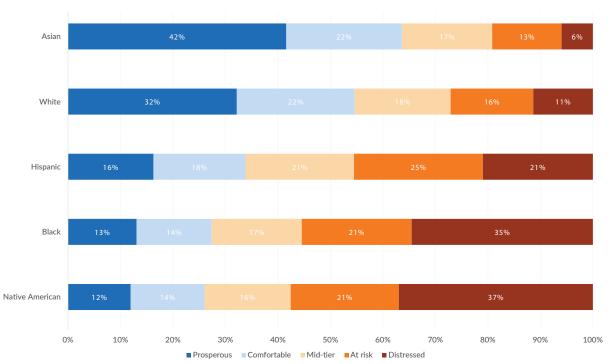
#### Minority groups were over-represented in distressed communities.

Minority groups (encompassing all races and ethnicities except non-Hispanic white) constituted well above half—55.6 percent—of the population in the country's distressed communities during the 2012-2016 period, even though minorities represented only 38.2 percent of the population nationwide. In prosperous zip codes, only 27.3 percent of residents were minorities, meaning nearly three-quarters were white.





Looking at each group separately, Asian-Americans were by far the most likely to reside in prosperous zip codes and least likely to reside in distressed ones. Together, Asians and whites were the only two groups over-represented in prosperous communities and underrepresented in distressed ones. Hispanic, Black, and Native Americans were all far more likely to live in a distressed community than they were a prosperous one.

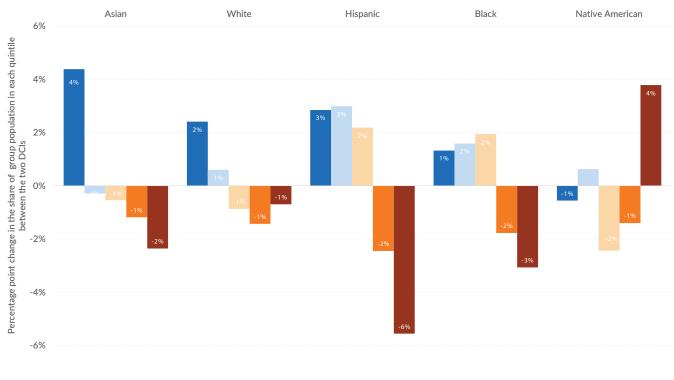


#### 10. Distribution of each group's population across quintiles

Foreign-born residents, a group that crosses racial and ethnic distinctions, were almost twice as likely to live in a prosperous zip code than a distressed one. Of the 42.1 million foreignborn residents of U.S. communities, 11.1 million lived in prosperous zip codes, between 8.2 million and 8.6 million each in comfortable, mid-tier, and at risk zip codes, and 5.7 million in distressed communities.

#### The country has made small but meaningful progress towards inclusion.

Despite the clear and continued concentration of minority populations in economically struggling communities, minorities generally became somewhat less concentrated in distressed and at risk communities between the two periods. In addition, majority-minority zip codes (zip codes in which at least half of the population belongs to a minority group) were more likely to see their DCI scores improve between the two periods than majority-white ones (53 percent to 49 percent). But the gaps remain wide: The average majority-minority zip code registered a sharply higher distress score of 67.4 on the index, compared to 46.7 for the average majority-white community. In other words, the average majority-minority community was at risk and significantly worse-off than the average zip code nationally.



11. Change in the share of each group's population residing in each quintile

Prosperous Comfortable Mid-tier At risk Distressed

Hispanics made the biggest improvements of any demographic, seeing the share of their population residing in distressed zip codes fall by nearly 6 percentage points and the share of their population residing in prosperous, comfortable, and mid-tier zip codes increase by at least 2 percentage points each. In absolute terms, the Hispanic population increased by 6 million nationally between the two periods, and during that time the Hispanic population in distressed zip codes fell by 1.5 million. This decline was driven by the composition effects discussed before; Hispanics were well-represented in zip codes and regions in which well-being rose from one period to the next as the recovery gained strength.

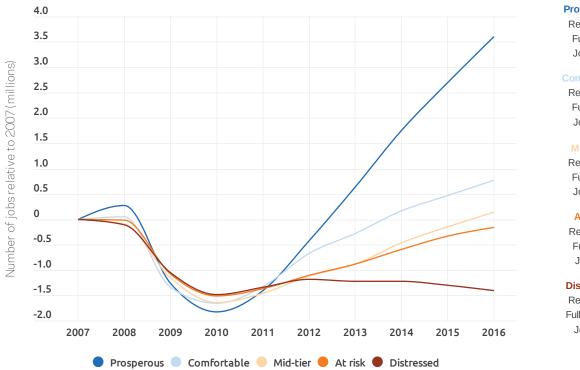
Native Americans were an important exception to the rule of modest progress. Native Americans became even more concentrated in distressed communities over the recovery. They were also the only group whose representation in the prosperous quintile of American life actually fell between the two periods. As of 2012-2016, more than three times as many Native Americans lived in distressed zip codes as prosperous ones.

# IV. The recovery has widened the gaps between American communities.

The gap between the average prosperous and the average distressed zip code grew wider on five of the seven indicators that make up the DCI between the two periods. Where communities completely diverged, however, was with respect to the most tangible fruits of the recovery: increases in jobs and businesses.

#### American communities shared the recession but not the recovery.

The Great Recession hit employment in prosperous and comfortable zip codes two years later than it did the rest of the country, but by 2010 all tiers of American communities had lost a comparable magnitude of jobs relative to where they started in 2007—between 1.5 and 1.8 million each. While the recession itself struck the labor markets of different tiers of American communities with relatively equal force, the recovery had wildly different effects, as exhibited in Figure 12.





Prosperous Zip Codes

Recession start: 2008 Full Recovery: 2013 Job Surplus: +3.6m

Comfortable Zip Codes

Recession start: 2008 Full Recovery: 2014 Job Surplus: +781k

#### Mid-Tier Zip Codes

Recession start: 2007 Full Recovery: 2016 Job Surplus: +164k

#### At Risk Zip Codes

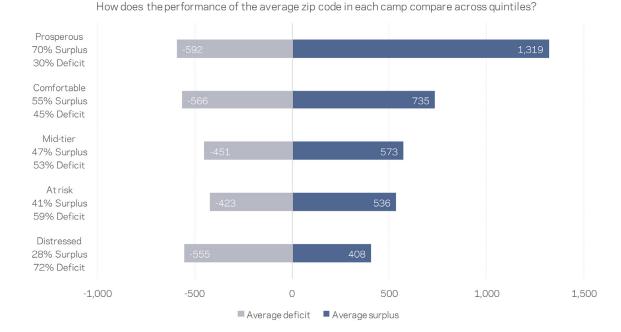
Recession start: 2007 Full Recovery: 2017 Job Surplus: -137k

**Distressed Zip Codes** 

Recession start: 2007 Full Recovery: Unlikely Job Surplus: -1.4m Zip codes that scored as prosperous during the 2012-2016 period fully recovered all the jobs they lost to the recession in 2013—one year ahead of the national economy. Their seemingly vertiginous climb proceeded from there so that by 2016, the group contained 3.6 million more jobs than it had in 2007. Putting that remarkable feat into perspective: Half of all zip codes nationwide still contained fewer jobs in 2016 than they did in 2007. Prosperous zip codes were not only integral in ushering in the country's full employment recovery, but they were almost solely responsible for any of the country's net job growth beyond that point.

The past 10 years demonstrate quite clearly that prosperity and resiliency to economic shocks go hand in hand. What registers as a temporary blip for well-off people in well-off places can permanently damage the growth capacity of communities with weaker foundations and more vulnerable populations. At risk zip codes lost an entire decade to the Great Recession. Distressed zip codes, for their part, are projected to never fully recover from the Great Recession on current trendlines.

Struggling communities were not monolithic, however. Over a quarter of distressed zip codes did manage to expand their employment base between 2007 and 2016, adding an average of 408 jobs over and above 2007 levels. Still, as Figure 13 shows, even the distressed zip codes that did expand struggled to generate the same magnitude of growth as their better-off peers. Furthermore, the figure underscores the intensity of the employment recovery in the top quintile of communities even when compared to that of comfortable areas. Once again, American communities were fairly similar in decline, but remarkably different in expansion.

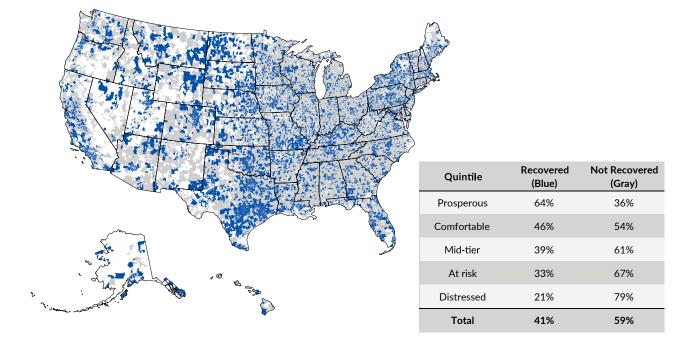


13. Examining growing and declining zip codes within 2012-2016 quintiles

Within quintiles, some zip codes have a surplus of jobs relative to 2007 and others a deficit.

## Prosperous communities added more net new businesses than the other 80 percent of zip codes combined from 2012 to 2016.

After losing over 350,000 business establishments to the downturn from 2007 to 2011, the national economy proceeded to add roughly 400,000 of them from then through 2016. But where businesses returned bore little relation to where they had previously disappeared. At the local level, a mere two out of every five zip codes contained more business establishments in 2016 than they did in 2007. Only one-third of at risk zip codes and only one in five distressed ones reached this milestone. Prosperous communities were the only tier on the DCI in which a majority (64 percent) of zip codes saw a net increase in the number of local businesses between 2007 and 2016.



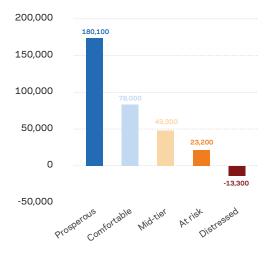
14. Zip codes containing more (blue) or fewer (gray) business establishments in 2016 compared to 2007

It is difficult to overstate the role of prosperous communities in driving the national business recovery. During the 2012-2016 period, the number of business establishments in prosperous zip codes increased by over 180,000—more than in the bottom four quintiles of zip codes combined. Comfortable, mid-tier, and at risk zip codes together added only 150,500, while distressed zip codes lost 13,300 additional business establishments over the recovery period.

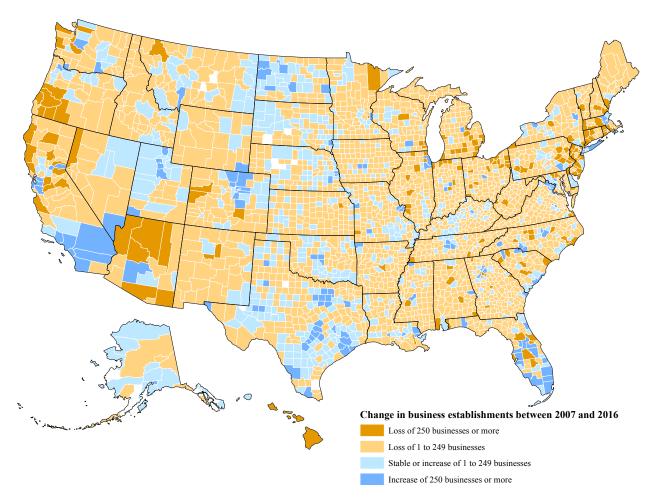
#### Fewer than a quarter of counties have recovered from the business closures of the recession.

#### One of the clearest indicators of the grindingly slow rate of recovery across much of the country lies in the number of business establishments per county. By 2016, fewer than a quarter of county economies had managed to replace all the businesses they lost to the Great Recession. More than twothirds of those that did reach this basic milestone ranked as either comfortable or prosperous on the DCI (calculated at the county level), and many belonged to major metropolitan areas or had natural resource-based economies. By 2016, the country's population was almost evenly split between counties that had fully put the recession behind them on this measure (161 million) and those that had not (157.4 million).

### 15. Increase in business establishments between 2012 and 2016

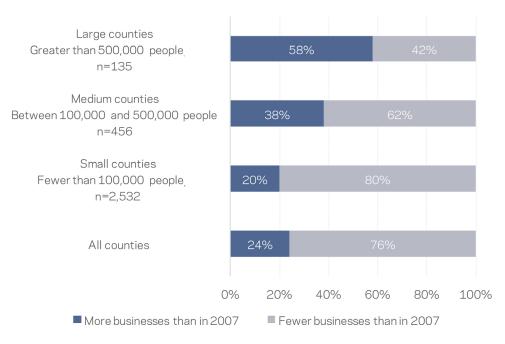


#### 16. Change in the number of business establishments between 2007 and 2016



Fully 58 percent of large counties (those with at least 500,000 residents) added businesses on net over the full 2007-2016 period, compared to 38 percent of medium sized counties (those with 100,000 to 500,000 residents), and only 20 percent of small predominately rural counties (those with fewer than 100,000 residents).

To underscore the geographic unevenness of new business formation over the recovery, consider that the country itself contained only 52,800 more business establishments in 2016 than it did in 2007, the product of the most dismal period of net business formation on record. Five counties alone surpassed that, with a combined 55,500 more businesses in 2016 than before the recession: Los Angeles, CA; Brooklyn, NY; Harris, TX (Houston); Queens, NY; and Miami-Dade, FL. Outside of those five counties, the country still contained fewer active business establishments in 2016 than it did in 2007.



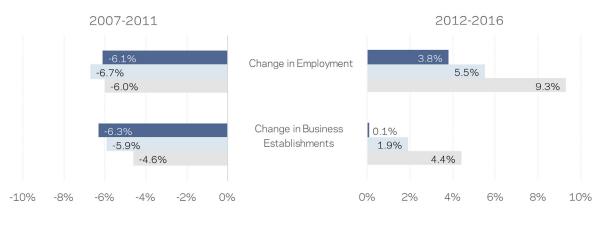
17. Share of counties in different size classes with more or fewer business establishments in 2016 relative to 2007

#### National growth rates have become less reflective of local realities.

Much like the gap between communities, the gap between the national economy and the median zip code or county is widening as national growth relies on a narrower base of dynamic locales. Amid the Great Reshuffling, Anytown, USA, is being left farther behind.

From 2007 to 2011, the U.S. economy shed jobs at a rate closely resembling that of the median zip code and median county. American communities—as grouped on the DCI—were more or less facing similar headwinds during the recession. The upswing, however, has been far less egalitarian. From 2012 to 2016, the U.S. economy added jobs at a nearly 4 percentage point

higher rate than the median zip code and a whopping 5.5 percentage points over the median county. The same went for establishments: The U.S. economy added business establishments at more than twice the rate of the median zip code from 2012 to 2016. The median county trailed even farther behind.

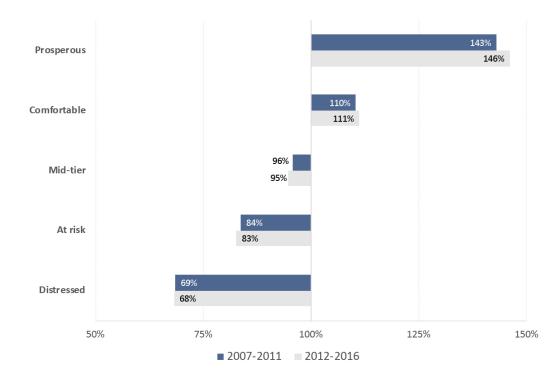


#### 18. Comparing growth rates across key geographies



#### The income gap has widened and poverty increased across the board.

The rise in income inequality at the national level over the decade was visible across communities as well. The median household income between the average zip code in every quintile and its state widened between the two periods studied.

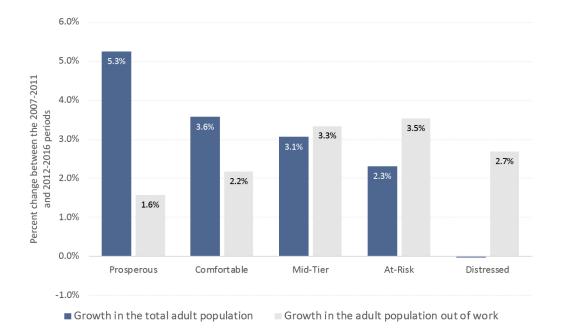


19. Median income relative to state for the average zip code in each quintile

The poverty rate also rose during the recession and remained elevated through the 2012-2016 period. In total, an additional 4.3 million Americans fell into poverty between the two periods, bringing the total number of Americans living below the poverty line to 46.7 million.

#### Americans in marginal communities continued to fall out of work deep into the recovery.

Nationally, the share of prime-age adults who were not working fell slightly between the two periods, but in absolute terms the number of adults not working rose due to population growth by 1.2 million, to a total of 45.3 million. Some adults choose not to work, of course. If all else is equal, we might expect the number of adults not working in a community to rise in somewhat fixed relation to population growth. Instead, what we see across quintiles is a distinctly unequal pattern: Prosperous and comfortable zip codes were considerably more effective at drawing workers into the labor force, as the out-of-work population grew much more slowly than the total population between the two periods. Conversely, the ranks of the out-of-work expanded far more rapidly than the population itself in at risk and distressed zip codes. Even deep into the recovery, Americans in these vulnerable communities continued to see a weakening attachment to the labor force.



20. Charting the rise in worklessness among prime-age adults (25-64) across the two periods

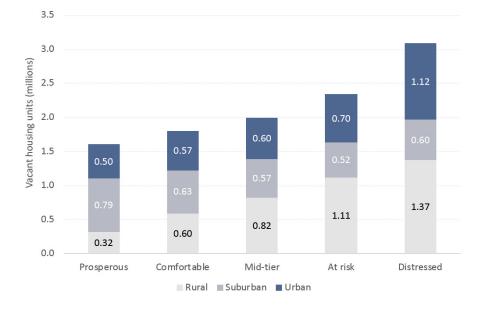
# V. A closer look at the factors that influenced performance on the DCI

## The housing vacancy rate was the best predictor of a zip code's overall well-being.

All seven component indicators are equally weighted in the overall index, but it seems that vacancy rates are a bellwether. A simple regression analysis finds that the housing vacancy rate is the strongest predictor of both a zip code's overall score and its change over time. Falling vacancy rates may provide an early signal of community comeback; rising ones may sound the alarm that a particular community is at risk of disinvestment and decline. Intuitively, vacancy rates also signal the strength of demand for living in a place—a good proxy for overall well-being.

Vacancies and vacancy rates fell at the national level but rose in three different and sometimes overlapping slices of geography between the two periods: in distressed zip codes, in rural areas, and in the Northeast. Once again, the combination of rurality and distress proved especially potent, as three out of every five rural distressed zip codes saw vacancies rise between the two periods. In perfect contrast, three out of every five urban distressed zip codes saw vacancies decline. Average vacancy rates in distressed rural zip codes converged significantly with those in distressed urban zip codes between the two periods.

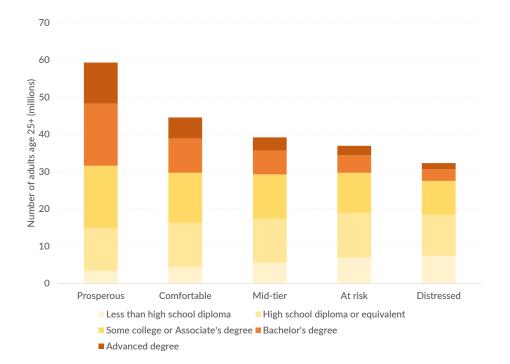
To put the present burden of vacancies across quintiles into perspective, distressed zip codes contain 16.5 percent of all housing units nationwide but 28.5 percent of all vacant ones. The highest vacancy rates can still be found in distressed urban zip codes in the Midwest, where one in every five homes stands vacant.



#### 21. Total number of vacant housing units by quintile and type of community (2012-2016)

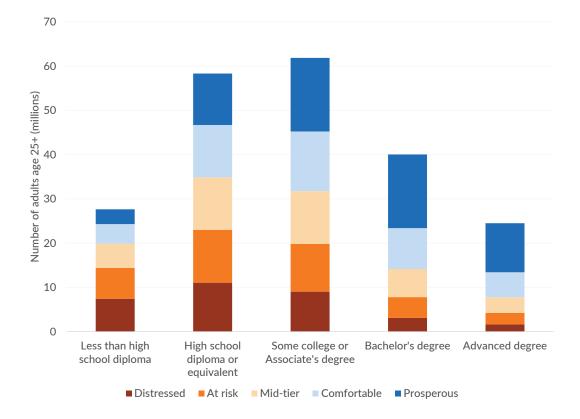
#### The geography of well-being largely reflects the geography of collegeeducated workers.

The population differential between prosperous and distressed communities was almost entirely accounted for by the clustering of college-educated Americans in well-off zip codes. All five tiers of U.S. communities contained approximately 30 million Americans each with some college, an Associate's degree, or less education. On top of that base, prosperous zip codes contained another 27.7 million adults with a bachelor's degree or higher, almost six times the 4.8 million that lived in distressed zip codes.



22. Distribution of adults by educational attainment across quintiles (2012-2016)

The geography of community prosperity thus maps closely with the geography of educational attainment. Prosperous communities—in both periods, but even more so in the later one—were generally densely-populated enclaves of highly-educated workers employed in knowledge-based industries. Nearly half (47 percent) of residents of prosperous zip codes had obtained at least a bachelor's degree, compared to 30 percent nationally and only 15 percent in distressed zip codes. Adults without a high school diploma or equivalent, by contrast, were the only group to be over-represented in less well-off communities: 7.4 million adults in distressed zip codes had not completed high school, compared to 3.3 million in prosperous zip codes.

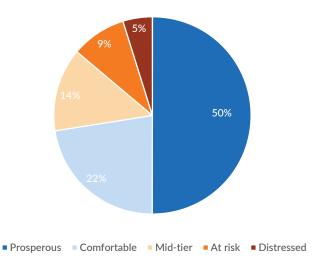


23. Quintile of residence for Americans adults at varying levels of educational attainment

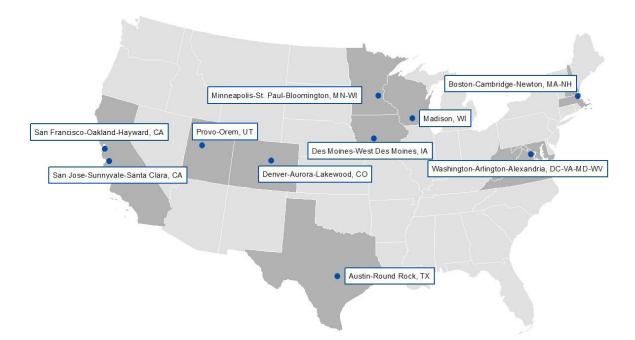
The already sizeable education gap is poised to widen further in the years ahead. Half of the 3.7 million new advanced degree holders minted between the two periods settled in prosperous zip codes. Meanwhile, only 5 percent of the new additions went to distressed communities. Similar patterns held for four-year degree holders too.

Notably, prosperous zip codes also welcomed 44 percent of new foreign-born Americans, compared to distressed zip codes' 5 percent. Zip codes that rose in the rankings were generally home to both larger numbers of advanced degree holders and foreign-born residents than those that fell.

Metro area findings reinforce the education advantage. Tellingly, seven of the 10 major metro areas in which the largest share of the population resided in a prosperous zip code also ranked in the top 10 for bachelor's and advanced degree attainment. (Major metro areas are defined as those that contain at least 500,000 residents, of which there are 105). 24. Distribution of the increase in advanced degree holders from 2007-2011 to 2012-2016 by quintile



#### 25. The 10 major metro areas with the greatest concentration of residents in prosperous zip codes



Prosperity Rank	Metro area	% Population in prosperous zip codes	% Population with bachelor's degree or higher	Educational attainment rank
1	Minneapolis-St. Paul-Bloomington, MN-WI	64.5%	40.0%	12
2	Madison, WI	63.0%	43.9%	8
3	Provo-Orem, UT	61.9%	37.7%	16
4	San Francisco-Oakland-Hayward, CA	61.7%	46.6%	3
5	Des Moines-West Des Moines, IA	57.9%	35.9%	23
6	Austin-Round Rock, TX	57.0%	42.0%	9
7	Washington-Arlington-Alexandria, DC-VA-MD-WV	56.7%	49.4%	1
8	Denver-Aurora-Lakewood, CO	56.6%	41.3%	10
9	San Jose-Sunnyvale-Santa Clara, CA	55.0%	48.3%	2
10	Boston-Cambridge-Newton, MA-NH	54.8%	45.4%	6

Conversely, six of the 10 major metro areas with the largest shares of their population living in distressed zip codes ranked in the bottom 10 on college degree attainment nationally. In Bakersfield, CA, half of the population lived in a distressed zip code—the highest share of any major metro area nationally. Bakersfield also had the lowest college degree attainment rate of its peers, with only 15.7 percent of the adult population holding a bachelor's degree or higher—half the national rate.

#### 26. The 10 major metro areas with the greatest concentration of residents in prosperous zip codes



Distress Rank	Metro area	% Population in distressed zip codes	% Population with bachelor's degree or higher	Educational attainment rank
1	Bakersfield, CA	49.7%	15.7%	105
2	McAllen-Edinburg-Mission, TX	47.8%	17.4%	103
3	Memphis, TN-MS-AR	40.9%	26.9%	86
4	Stockton-Lodi, CA	38.1%	18.2%	102
5	El Paso, TX	36.7%	21.6%	97
6	Lakeland-Winter Haven, FL	33.9%	19.5%	101
7	Birmingham-Hoover, AL	30.9%	28.8%	73
8	Jackson, MS	30.2%	29.3%	70
9	Youngstown-Warren-Boardman, OH-PA	30.0%	20.7%	98
10	Tucson, AZ	29.5%	30.8%	51

#### The recovery of the Sun Belt drove upward and downward mobility.

Since the DCI is a relative measure that scores zip codes based on how their economic performance stacks up against their peers, dynamics in one corner of the country affect the distress scores of zip codes everywhere. Hence, as the zip codes near the epicenter of the housing bust shifted into a sustained and often quite robust recovery, they triggered a major reshuffling of zip codes on the index nationwide. In Florida, for example, the share of the state's population residing in distressed zip codes almost halved from one period to the next thanks to a dramatic rebound in growth. The number of jobs in the state contracted by 9.3 percent from 2007 to 2011 before swinging into a 17.8 percent expansion from 2012 to 2016—the fastest job growth rate in the country.

Some local examples help contextualize the phenomenon further. Zip code 85013 in Phoenix, AZ, improved by 46.1 points on the DCI as its housing vacancy rate fell by one-third and job growth swung from sharply negative to sharply positive. The same story holds for zip code 34116 outside of Naples, FL, which improved by 54.9 points as the housing vacancy rate fell by almost 10 percentage points and the rate of change in number of business establishments swung by nearly 40 percentage points.

Distress shifted sharply away from these crisis-hit locales and towards slower growing corners of the Northeast, Midwest, and central South between the two periods. In other words, the index went from capturing the recession's most severe trouble spots in the first time period to revealing those most left-behind by the recovery in the second.

The fading oil and gas boom that buoyed places like North Dakota, Central New York, and Western Pennsylvania through the 2007-2011 period of national recession provides the foil that explains part of the downwardly mobile side of the story. In the earlier period, 49.1 percent of North Dakota's population lived in a prosperous zip code—second only to similarly counter-cyclical and energy-dominated Alaska. By 2012-2016, the figure more than halved in both states as the recovery across much of the rest of the country gained strength. Metro areas such as Johnstown and Williamsport, PA, and Elmira and Utica, NY, experienced similarly steep falls in relative fortunes between the two periods. Prosperity on the DCI needs to be robust across indicators and deeply rooted in a diversity of local strengths to be durable, it would seem.

# VI. Conclusion

The American economy is both riding a record-breaking expansion and adrift in a decade of lost progress. Which truth applies depends on your zip code.

The Great Recession accelerated an ongoing shift in the geographic sorting of human capital, job creation, and business formation—one that has had both positive and negative implications for Americans and their communities.

It is certainly worth celebrating the fact that a large and rapidly growing share of the population lives in thriving areas. The post-recession economy has delivered phenomenal economic growth and rising prosperity for college-degree holders, professional workers, and communities with spending power. But the vitality of these places has also obscured the more fractured reality outside of the top tier.

Positive national statistics must not blind us to these divergent local realities or breed complacency in our needed efforts to expand access to opportunity to new corners of the country. After all, an economy that primarily works for the college-educated and the places they congregate is not an economy that works.

Even in the midst of an economic boom, there are signs much of the country has become structurally more brittle and less prepared to absorb the shock of the inevitable next recession. The country's storied economic dynamism is in retreat. The business formation rate remains near its record low. People are half as likely to move across state lines as they were two decades ago. Saddled with student debt, burdened by licensing regimes, and priced out of prime metro areas thanks to restrictive zoning, too many Americans are stuck in place or overly risk averse.

Policymakers at every level should use this period of national prosperity to reinvest in communities and rekindle the dynamic ingredients of the economy—to make opportunity more accessible, healthy risk-taking more viable, and people more empowered to choose which community to call home. The scale of challenge demands an embrace of localism and a recommitment to the basic ingredients that created the world's most formidable engine of prosperity in the first place: entrepreneurship, education, competition, and civic commitment to community and place.

#### END NOTE

We hope others will use the DCI as a base on which to build additional research and are committed to making the data available to academics and non-profits. For inquiries, please email info@eig.org.

#### ACKNOWLEDGMENTS

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