

Destination Decisions

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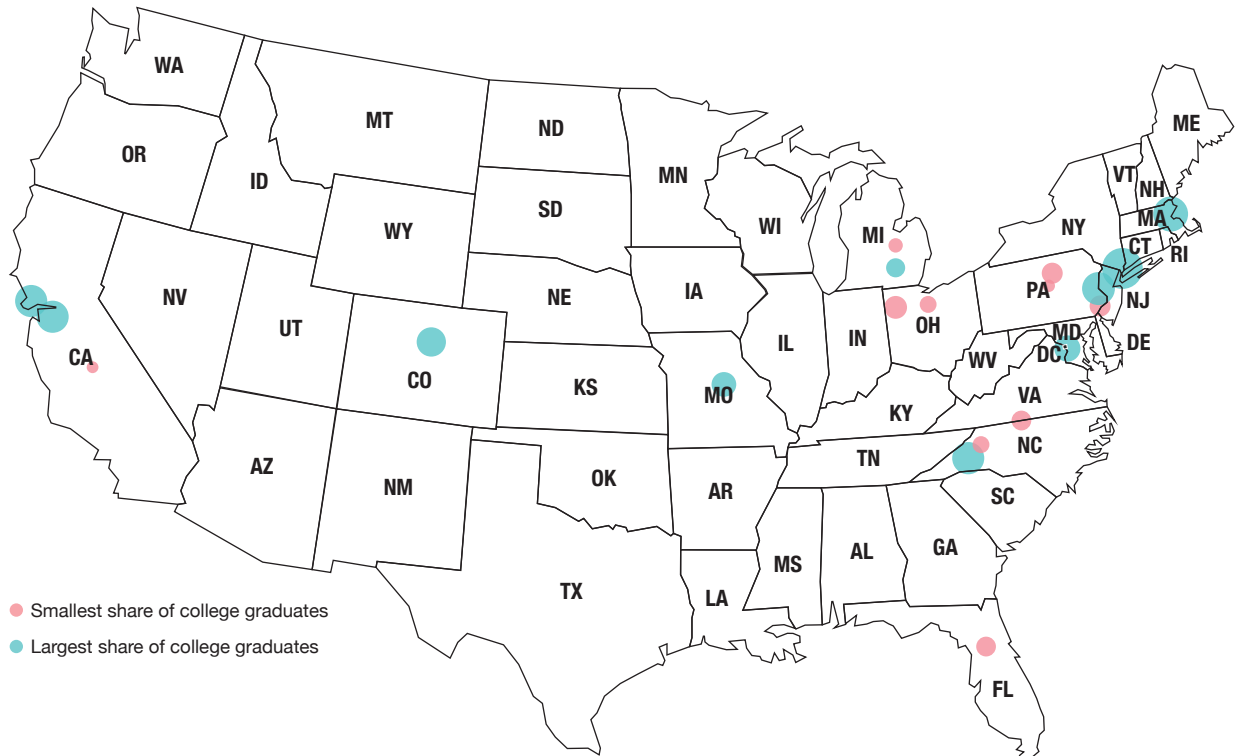
As young adults complete their schooling or training and begin to think about entering the labor force, they have to make an important decision about *where* to work. Should they work in a high-amenity city—like New York or San Francisco—where there are lots of jobs, a concentration of other young workers, and a wide array of cultural offerings? Or should they seek a job in a small city, perhaps one close to home, where housing is more affordable and other costs are lower?

Trade-offs inevitably arise when deciding upon the best mix of wages, expenses, and quality of life. The purpose of this article is to examine how these trade-offs are being resolved. I examine two key questions: Where do college graduates and non-college graduates choose to live? And what are the implications of this decision for economic inequality?

Where to live?

The decision about where to live has implications not only for (a) the extent to which highly educated and less educated workers cluster in different cities (i.e., “skill-level segregation”) but also for (b) the extent to which high-income and low-income workers cluster in different cities (i.e., “income segregation”). These two types of segregation are

Figure 1. College graduates increasingly live in cities with other college graduates.



Note: Cities in blue had the largest share of college graduates in the workforce in 2000; cities in red had the smallest share. The size of the dot indicates the size of the change in college share from 1980 to 2000. Source: Moretti, 2013.

related because workers with a college degree earn substantially more than their peers with less education, a gap that has grown substantially over the past three decades. In 1980, college graduates made 38 percent more than high school graduates; by 2011, they earned 73 percent more.

Because the benefits of earning a college degree are higher than they once were, we would see a growing income gap between high-education and low-education cities even if there weren't any change in the tendency of well-educated workers to cluster in certain cities. But in fact, there has been a change in that tendency. At the same time that education-based wage inequality started to accelerate, college graduates began congregating in cities where other college graduates live.

Cities such as Atlanta and Boston—which were already home to high percentages of college graduates—attracted a disproportionate share of additional college graduates between 1980 and 2000. Meanwhile, in cities where a relatively small share of the 1980 population were college graduates, cities like Albany or Harrisburg, there was virtually no post-1980 growth in the share of college graduates. The upshot: The advantaged cities became even more advantaged (in degrees *and* income), while the disadvantaged cities remained just as disadvantaged as they always had been.

This increase in both skill-level and income segregation had spillover wage effects for the less educated workforce. There was a wage payoff, in other words, to opting for a high-skill city even if you were a low-skill worker. For every 1 percent increase in the ratio of college graduates to non-college graduates, college graduates experienced a 0.2 percent wage increase, and non-college graduates experienced a 0.6 percent wage increase.

What drove this trend? The sources of the rising returns to a college degree are well known and can be attributed, in part, to labor market changes that affected demand for college graduates, including the widespread adoption of computers, the rise of automation, and the associated export of many lower-skill jobs (i.e., “globalization”). At the same time, the share of workers protected by unions declined, while the federal minimum wage decreased in real value.

These demand-side changes, which are typically represented as national forces, in fact played out differently in different cities. In particular, cities that were historically home to high-tech and

R&D saw larger growth in the demand for higher-educated workers. San Jose, for example, had one of the highest shares of college graduates in 2000, at 48 percent, up from 33 percent in 1980. By contrast, cities that did not have a large preexisting investment in skill-demanding industries, like high-tech, did not experience much of an increase in demand for skilled labor.

Yet labor market changes are not the whole story. These changes lead to rising wages, but do they also lead to a takeoff in amenities? How, in other words, did the high-wage city also become the high-amenity city?

These two changes are in fact closely linked: As college graduates moved into skill-demanding cities, the quality and variety of available goods and services improved in those cities, reflecting the higher wages and disposable income. The per capita number of clothing stores, bars, restaurants, movie theaters, and grocery stores thus increased. Per capita spending on K–12 education grew, while property crime rates fell and pollution declined. The high-wage city thus gradually became the high-amenity city.

The benefits of high-skill cities disproportionately accrue to college-educated workers, while less educated workers concentrate in cities with lower wages and less desirable amenities.

Why doesn't *everyone* move into a high-wage, high-amenity city? It should be recalled, after all, that even less educated workers earn more in high-wage cities. And it's not just wages that are at stake. Because high-wage cities are also high-amenity cities, those who move into them will both earn more *and* benefit from an amenity-rich environment. If given the choice, most workers—regardless of education—would prefer to live in cities with high wages and good amenities. This leads one to expect that workers of all skill and income levels would desire to move to these cities.

It might be thought that one reason why this doesn't happen is that in fact not everyone wants the types of amenities available in amenity-rich cities. Aren't some amenities, like the ready availability of a Starbucks Cinnamon Dolce Latte, more

suiting to the tastes of the young college-educated worker? Although some amenities surely have this niche character, for the most part everyone—no matter how educated—wants low crime rates, less pollution, nicely paved streets, and all the perks of living in a high-wage, high-amenity city.

The main reason, then, why we don't see an across-the-board influx into these cities is housing costs. Increasingly high-skill, high-amenity cities experienced sharp increases in housing costs. Cities that increased their ratio of college graduates to non-college graduates by 1 percent also experienced rent increases of 0.7 percent. While college graduates do, to some extent, place particular importance on the quality of amenities, non-college workers are more deterred by high housing costs.

High housing costs thus work to maintain the “education divide” among cities. The benefits of high-skill cities—high-wage labor markets and desirable amenities—disproportionately accrue to college-educated workers, while less educated workers concentrate in cities with lower wages

and less desirable amenities. The consequence has been a “Great Divergence,” a phrase coined by Enrico Moretti, between the cities that appeal to highly skilled workers and the cities that are less expensive with fewer amenities that attract less skilled workers.

What are the consequences for economic inequality?

I have shown to this point that workers are increasingly segregated by their education level, wages, and access to amenities. What does this trend mean for inequality? In making this assessment, we have to take into account that workers in high-skill cities get (a) “less house for the money” but also (b) an extra dose of amenities. It's useful to consider each of these complications in turn.

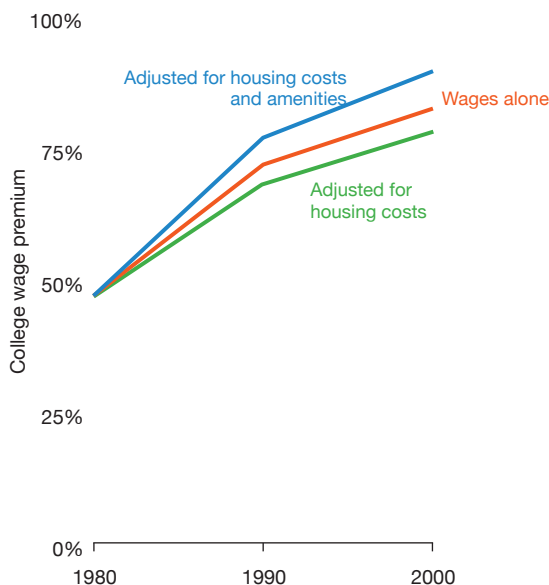
The first point is the straightforward one that college workers tend to live in cities with high rents and big mortgages. This leads to a simple question: If these extra housing expenses are subtracted out, do college graduates in New York still have more money available to spend than non-college graduates living in Cleveland? To what extent, in other words, do differences in income overstate the real amount of inequality between a New Yorker and a Clevelander?

Between 1980 and 2000, the wage gap between college graduates and high school graduates grew by 50 percent. But when the additional housing costs in high-skill cities are taken into account, this wage premium actually rose by only 40 percent. Thus, when accounting for housing costs, economic inequality is actually lower than it appears when wages alone are considered.

But of course it's not quite that simple because the higher housing costs in New York reflect, in part, the many amenities that New York delivers. The college graduate in New York, even though she is paying more for housing, is also enjoying all the culture, restaurants, fashion, and recreation of New York City. It's likely that college graduates are willing to shoulder higher housing costs in part because they want the desirable amenities offered by expensive cities. The second part of the calculation, then, is to adjust for this complication.

Because standard measures of wage inequality don't account for public amenities that are common in high-productivity cities, I have constructed a measure of economic well-being that measures the level of utility derived from the consumption of goods and services. This measure incorporates

Figure 2. Access to high-quality amenities widens the wage gaps between college and non-college graduates.



Source: Diamond, 2016.

factors such as infrastructure, crime, retail environment, environmental quality, school quality, and job quality. To determine the effect on overall well-being, I study the willingness to pay to live in a given city as revealed through migration decisions. Using this measure, I then separate the overall change in well-being inequality into local wage effects, local rent effects, and local amenity effects.

The key result from my research: This is a nontrivial adjustment. When accounting for both housing costs and local amenities, I find that the 50 percent increase in the wage premium between college graduates and non-college graduates understates by at least 30 percent the true increases in economic well-being inequality. The benefits from high-quality amenities outweigh high housing costs for college graduates, meaning that economic inequality is in fact higher than it appears when looking at wages alone. Instead of a 50 percent increase in the wage premium, the economic benefit of a college degree is really closer to 65 percent.

Conclusions

In summary, changes in labor market demand led to the clustering of college graduates in certain cities, like San Francisco, New York, and Boston. Although many of those cities were already college-graduate havens, these changes in demand accentuated this education-based clustering. As more college graduates streamed in, wages in these cities rose and amenities improved, leading to a higher quality of life for residents. But these cities also grew more expensive, and non-college workers—who were unable to afford the high costs—became concentrated in less expensive cities with fewer amenities and lower wages, which in turn amplified the inequalities between low- and high-skill workers. If we just look at income gaps between cities, we are in fact misled into thinking that inequality is less extreme than it really is.

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The Winter 2019 edition of Pathways was delayed in publication and is based on articles written in 2018.

Notes

1. Estimates refer to workers employed at least 35 hours per week and 50 weeks per year within the ages of 25–55. Controls include race, Hispanic origin, sex, and experience. Data are from the 1980 U.S. Census and the 2011 American Community Survey.
2. Moretti, Enrico. 2013. “Real Wage Inequality.” *American Economic Journal: Applied Economics* 5(1), 65–103.
3. Diamond, Rebecca. 2016. “The Determinants and Welfare Implications of U.S. Workers’ Diverging Location Choices by Skill: 1980–2000.” *American Economic Review* 106(3), 479–524.
4. Autor, David H., Lawrence F. Katz, and Alan B. Krueger. 1998. “Computing Inequality: Have Computers Changed the Labor Market?” *Quarterly Journal of Economics* 113(4), 1169–1213. Goldin, Claudia, and Lawrence F. Katz. 2007. “Long-Run Changes in the Wage Structure: Narrowing, Widening, Polarizing.” *Brookings Papers on Economic Activity* 2, 135–165.
5. Shambaugh, Jay, Ryan Nunn, Patrick Liu, and Greg Nantz. 2017. “Thirteen Facts About Wage Growth.” Hamilton Project.
6. Moretti, 2013.
7. Diamond, 2016.
8. Ibid.
9. See Diamond, 2016, for a detailed explanation.