THE CASE FOR

ECONOMIC DYNAMISM

And why it matters for the American worker

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Introduction

For most of the 21st century, Americans were told we were living through a period of unprecedented economic change and transformation. Record waves of startups and new technologies were unleashing disruption across the economy. Headlines blared about gig work and automation turning the labor market upside down. So dizzying was the pace of change that we would need to reimagine the future of work, the social contract, and even capitalism itself. Reflecting the consensus, one prominent senator declared that we were in the midst of "arguably the largest economic disruption in recorded human history."[1]

But none of these claims was actually true. Instead, America was mired in a period of unprecedented complacency. The very thing that people were told to fear – rapid change and progress – had gone inexplicably missing.

In fact, American dynamism was in a decades-long retreat. Startup rates languished near all-time lows. Fewer companies were going public. Corporate America looked old and complacent. Increasingly, too, did American demography. U.S. productivity growth dramatically decelerated in spite of promising new technologies. And a country whose people were once known for their restless, pioneering spirit became increasingly stuck in place.

Simply put: America was losing its mojo.[2]

But now, after a prolonged period of relative stasis, the pandemic has jolted key indicators of economic dynamism – at least temporarily – back to life. The labor market is churning as job quits matched their highest levels on record in November 2021, when

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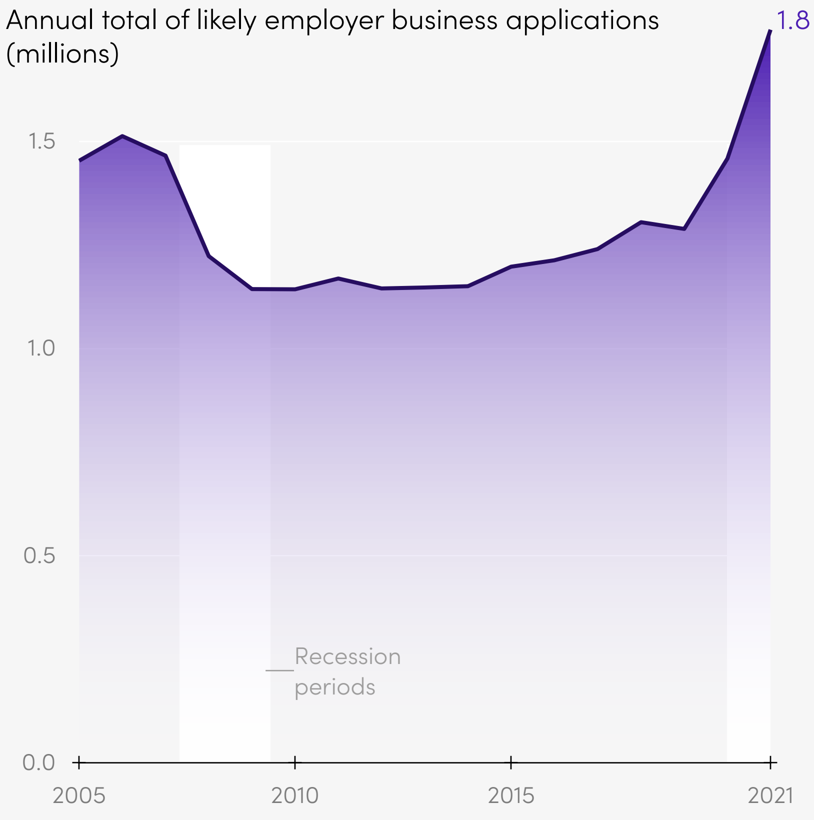
1 Sasse, 2017.

2 Thompson, 2016.

3 percent of the workforce quit in a single month.[3] IPOs are back to levels last seen in the heyday of the technology boom in the late 1990s and early 2000s. Firms are pouring resources into new technologies, developing new processes, and embracing new work arrangements with their employees. And entrepreneurship appears to be surging: in 2021, a record 1.8 million applications were filed to start new "likely employer" enterprises – 37 percent more than in 2019.[4]

Figure 1

In 2021, the pandemic helped spur the largest number of new likely employer business applications on record.



Source: U.S. Census Bureau's Business Formation Statistics

3 Bureau of Labor Statistics, Job Openings and Labor Turnover Survey.

4 U.S. Census Bureau, Business Formation Statistics; Newman and Fikri, 2022.

Look beyond the current momentum, however, and it remains clear that powerful headwinds are working against a return to the high-churn qualities that once characterized our economy. While the quantity of new businesses in the pipeline appears record-breaking, questions remain about their quality and longevity. The pandemic has accelerated the country's demographic challenges, pushing population growth and immigration to historic lows. The continued dominance of incumbent firms and vested interests across the economy means that market conditions are not especially hospitable to new upstarts. The economy is replete with gatekeepers that stymie workers and slow the pace of adaptation and adjustment. And the impact of temporary fiscal and monetary stimulus may be distorting markets and obfuscating the long-term economic outlook. For the country to overcome these challenges, we must renew the forces of competition, entrepreneurialism, and adaptivity that have waned dramatically in recent decades.

In the following paper, we examine the fall and potential rebirth of American dynamism and why it matters deeply for American workers. We track the downward trajectory of key economic indicators, such as startup and job reallocation rates, and highlight the major forces that help explain their decline. We reject the notion that Americans must settle for a complacent future in which stasis and managed decline replace dynamism as the new norm. We also reject the notion that replacing dynamism with stasis serves the interests of American workers and families. Policy mistakes – large and small – compounded over decades have contributed heavily to the country's diminished vitality, but it is not too late to change course. And change is urgently needed, because a high-churn, dynamic economy is one that offers the strongest benefits to workers in the form of abundant jobs and better wages, as well as greater access to opportunity for marginalized workers. To that end, we conclude by sketching out the pillars of a pro-dynamism policy agenda that would unleash the economy's pent-up potential and help all Americans share more fully in the benefits of economic growth.

What is dynamism?

The term economic dynamism refers to the rate and pervasiveness of change across industries, geographies, and the labor market in an economy.

Key indicators of dynamism traditionally include the rates of business formation and closure, the frequency at which workers quit and switch jobs, and the propensity of workers and families to move to new locations. Economic dynamism is not simply “disruption”; it equates more closely to a state of productive churn and adaptation that enables the economy and its workers to *respond* to disruption.

01 Diagnosing the Decline

Dynamism lies at the heart of a well-functioning market economy. A robust ferment of churn and change underneath the surface endows the economy with an inherent flexibility that allows it to adapt, evolve, and grow. Dynamism is safeguarded by multiple forces: the intensity of healthy market competition, demographic vitality, a high-quality human capital base, strong institutions, and even social and cultural factors like the population's entrepreneurial proclivity.

In dynamic economies, firms both form and fail more frequently, and a healthy startup rate ensures that the economic impacts of failures are short-lived, as the economy's natural restorative forces redeploy workers and resources into new and better endeavors. Healthy startup rates also ensure that markets remain competitive, priming a virtuous circle. In dynamic economies, workers move and change jobs frequently in both pursuit and attainment of economic opportunity, too. But when dynamism slows and competition withers, these processes become interrupted, and imbalances accumulate. Resources go idle. The rate of experimentation in the economy slows, and it becomes less able to adapt. Economic opportunities dry up.

The promise of a dynamic economy lies in its ability to ignite progress and provide insurance against future unknowns.

The promise of a dynamic economy lies in its ability to ignite progress and provide insurance against future unknowns. Dynamic economies generate the innovation and productivity advances that raise well-being. Constant churn fosters an underlying resilience that mitigates shocks and smooths transitions – be they black – swan pandemics or clean energy revolutions. And dynamism provides its own form of an economic safety net, with a healthy circulatory system that helps catch displaced workers and carry them into new occupations and endeavors.

Dynamism helps ensure workers find opportunity in the midst of economic change.

In short, dynamism helps ensure workers find opportunity in the midst of economic change. When the economy's inherent dynamism begins to ebb, so does its ability to deliver on the aspirations of American workers and their families. Unfortunately, that is precisely what has occurred in recent decades.

Let's turn now to a closer look at key measures of economic dynamism and the forces at play behind their steady declines.

The trends

The fall of American entrepreneurship

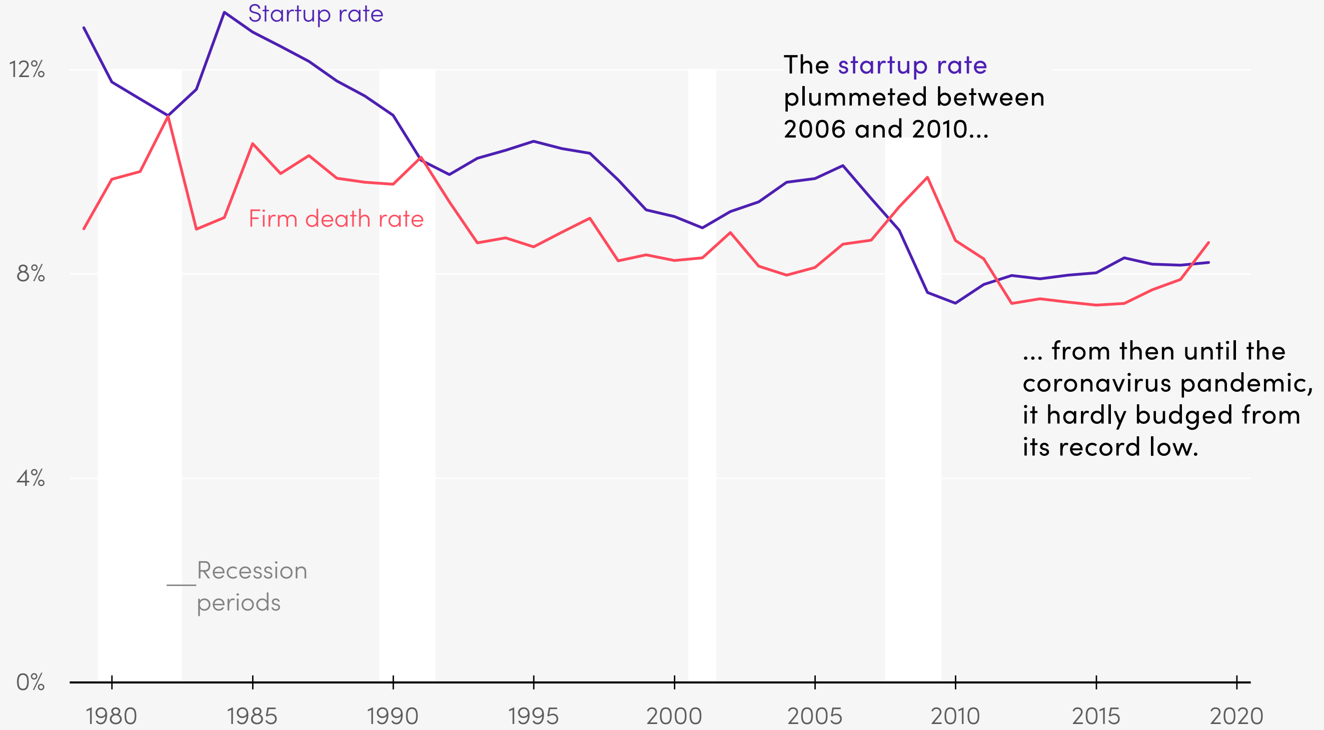
Strong startup rates signal a competitive and healthy marketplace with low barriers to entry that allow new firms to enter and compete.

The startup rate captures the share of all businesses in the economy that started within the past year, and it may be the foremost indicator of the economy's overall dynamism. Strong startup rates signal a competitive and healthy marketplace with low barriers to entry that allow new firms to enter and compete – raising quality, lowering prices, and spurring further innovation. On the flip side, a healthy firm death or closure rate is a sign that competitive forces are working: businesses that are unable to adapt (e.g., improve their goods and services, offer lower prices, or reduce their production costs) are forced out of the market, freeing resources to be deployed more productively elsewhere. In this way, firm births and deaths go hand in hand, as the flow of new entrants into a market puts healthy pressure on incumbents, some of whom will rise to the challenge of increased competition, while others perish. Healthy startup rates help mitigate the tangible downsides of firm closures for workers by ensuring they can quickly find employment elsewhere. Without a steady flow of new firms, workers feel the pain of each closure more acutely.

Figure 2

The business startup rate has languished near its all-time low point for over a decade.

U.S. startup rate and firm death rate



Source: U.S. Census Bureau's Business Dynamics Statistics

The startup rate has been trending downwards since the 1980s, but two pivotal points stand out in the data. The first occurred around the year 2000, when startup rates and the incidence of high-growth young firms in high-tech industries fell sharply for a decade.[5] The late-2000s financial crisis then brought another, more wide-reaching watershed. The startup rate plummeted across sectors and geographic regions between 2006 and 2010. From then until the onset of the coronavirus pandemic, it hardly budged from its record low. The rate at which firms die also slowed around the same time, albeit to a lesser extent. The result was a low-dynamism equilibrium that lasted for the duration of the 2010s in which firm starts barely exceeded firm closures at the national level – and actually fell below in many metropolitan and rural areas.[6] No longer

5 Decker, et al., 2016; Goldschlag and Miranda, 2020.

6 Fikri, 2021.

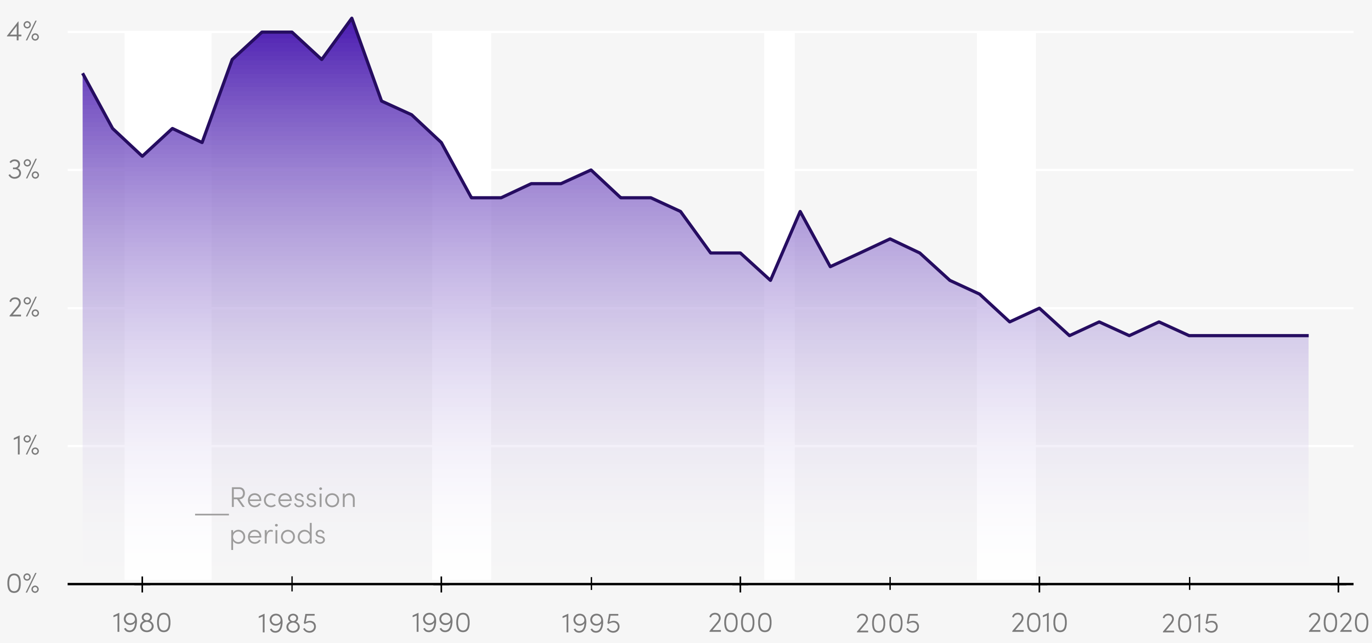
did the American economy comfortably add new firms at a faster pace than old ones that went out of business.

Nowhere is the fading heft of startups more apparent than in employment data. In the mid-1980s, roughly 4 percent of the workforce was employed in a company that started within the past year. By 2010, the figure fell below 2 percent, where it remained through 2019. In absolute terms, startups launched in 2019 employed 2.4 million workers – the same number as were employed by new firms in 1982, when the workforce was 57 million workers (or 43 percent) smaller. Two core factors contribute to startups' diminished weight in labor market: startups are both smaller (the average startup now has only four employees at founding, compared to five in the 1990s) and scarcer (the country produced almost 10 percent fewer new firms in absolute terms in the late 2010s than it did in the 1990s or early 2000s) than they used to be.

Figure 3

The share of Americans employed in startups has fallen by one-half since the mid-1980s.

Share of total employment in startups



Source: U.S. Census Bureau's Business Dynamics Statistics

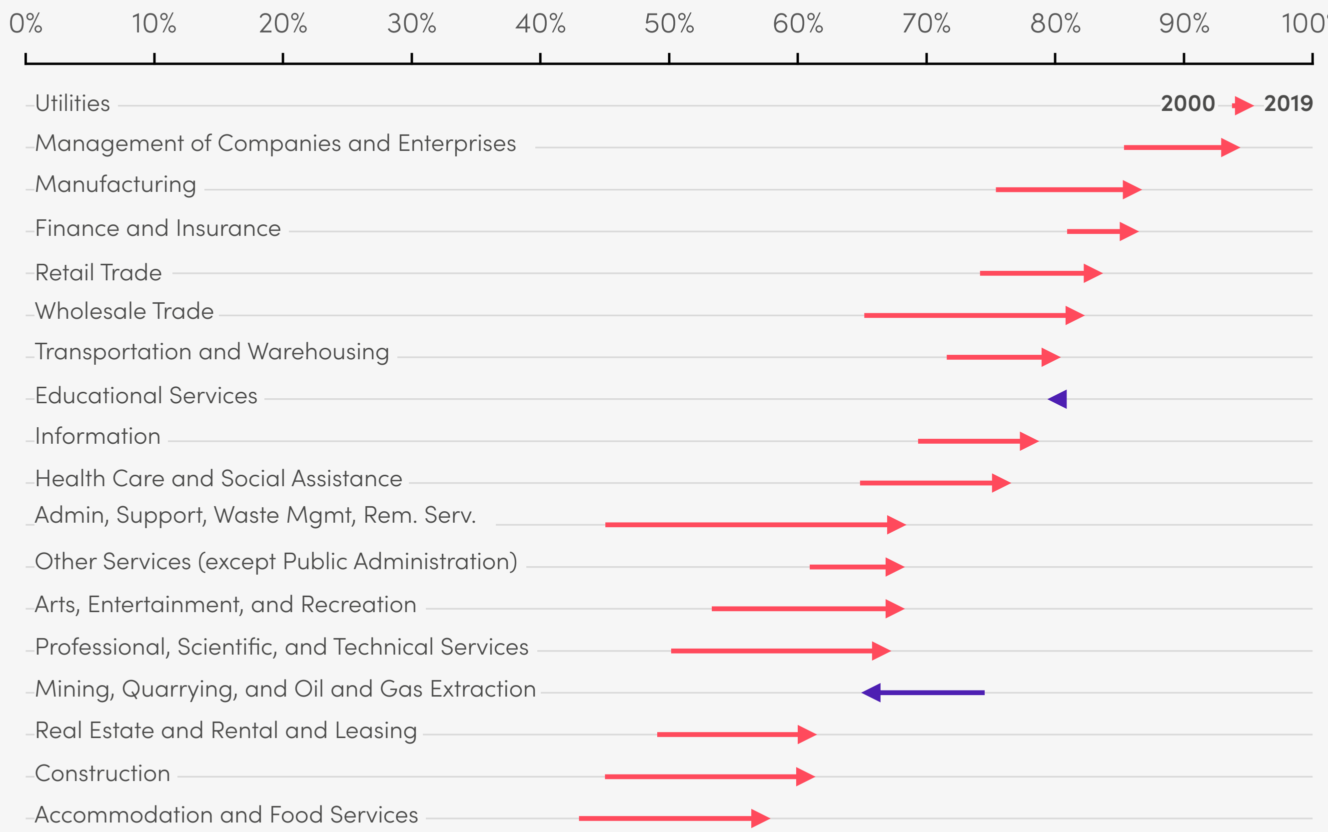
The graying of corporate America

The flip side of declining startups is the increasing dominance of older incumbent firms. The share of workers employed in older firms (defined here as firms that have been in business for at least 16 years, based on age groups provided by the Census Bureau) has steadily risen since the turn of the 21st century, reaching 74.9 percent in 2019. This trend is broad-based across industry sectors; between 2000 and 2019, only the mining, quarrying, and oil and gas extraction sector saw its share of employment in older firms decline meaningfully. The comparative youthfulness of the extraction industries can likely be explained by the technological revolution in hydraulic fracturing – a textbook case in how dynamism within sectors can transform industries, create wealth, increase productivity, and reshape economic geography.

Figure 4

Nearly every industry now has a larger share of workers in old firms than at the start of the century.

Share of employment in firms aged 16 or older by sector



Source: U.S. Census Bureau's Business Dynamics Statistics

As a rule, old firms are slower growing than young firms, if they grow at all. Thus, the shift in economic weight towards older (and often larger) firms leaves the economy less dynamic overall and more dependent on a dwindling cohort of new and younger firms to power job growth.[7]

The slowing churn of workers in the labor market

Contrary to popular myths regarding today's job-hopping millennials and gig economy precariat, churn in the American labor market has actually dampened over time. Even the record number of job quits registered in late 2021 only pushed total hires and separations in the economy (workforce turnover) back to levels last seen around 2000.[8] For the duration of the recovery from the Great Recession, turnover rates for prime-age workers failed to recover to pre-crisis levels.[9]

The stagnation appears even more acute when examining the net volume of jobs created and destroyed across firms (job reallocation) in the economy.[10]

In the 1990s, the equivalent of roughly one-quarter of all jobs in the economy were reallocated across companies annually as firms expanded, contracted, started, and failed in any given year. By the 2010s, that figure hovered around one-fifth – a 20 percent decline. In 2019, job reallocation reached an all-time low. While it may sound arcane, job reallocation is an integral economic process; its slowdown reflects a broader falloff in the rate at which even successful firms scale and grow. Economists Ryan Decker and colleagues calculate that falling job reallocation drove aggregate productivity growth more than one-third lower in the 2000s than it otherwise would have been.[11] And of course, the situation deteriorated further over the 2010s.

The falling job reallocation rate is an important corollary to the other patterns discussed here: fading startup rates, disappearing cohorts of high-growth young firms, and an aging firm

7 Goetz and Stinson, 2021.

8 Bureau of Labor Statistics Job Openings and Labor Turnover Survey.

9 Bureau of Labor Statistics Quarterly Workforce Indicators.

10 Davis and Haltiwanger, 2014.

11 Decker, et al., 2020.

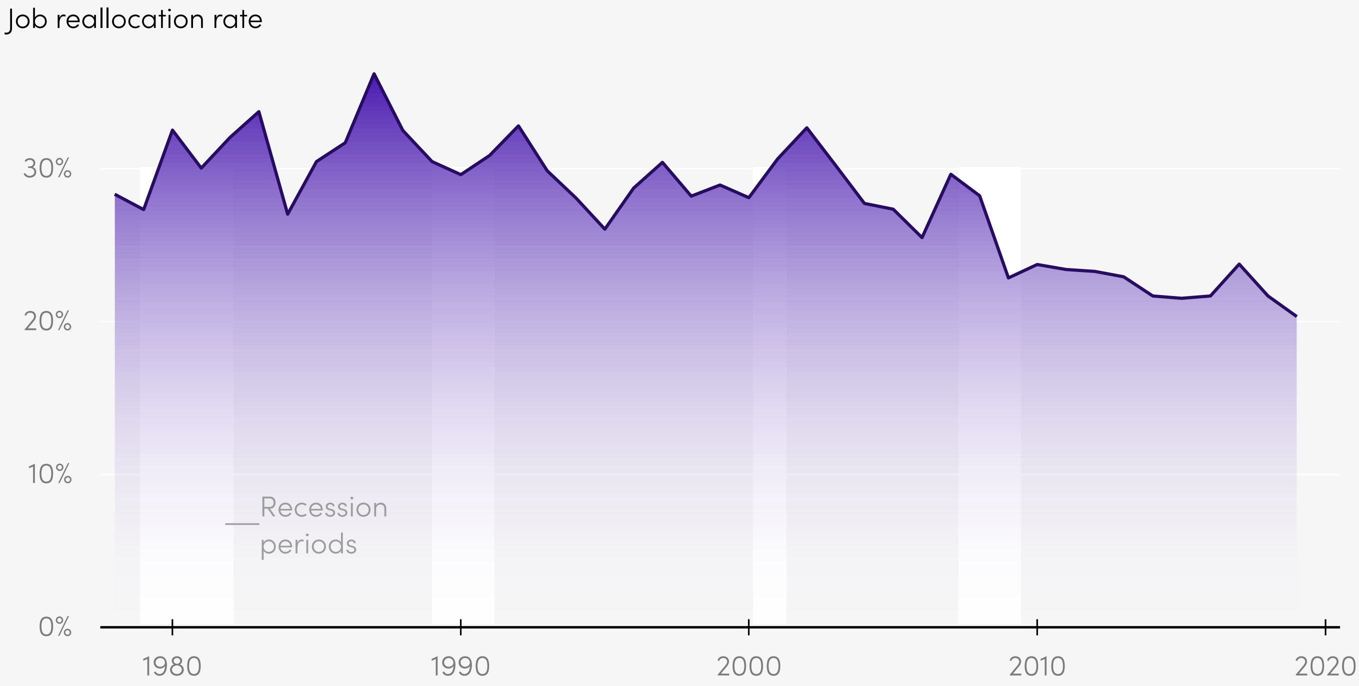
Box 1

Job reallocation versus workforce turnover: What's the difference?

These two terms refer to distinct but complementary concepts. Job reallocation is assessed at the firm level and offers an aggregate measure of how the distribution of jobs or positions in the economy shifts across firms each year. The reallocation rate is driven by new firm starts, firm closures, and the differential rates of expansion and contraction of different businesses. Workforce turnover, by contrast, refers to the rate at which workers change employers. A job position does not need to be reallocated between two firms for workers to turnover among them, for example. Job reallocation is important for aggregate economic productivity, while workforce turnover is important for an individual's career and wage growth, along with promoting quality job matches.

Figure 5

The rate at which workers churn across firms slowed to its lowest level on record in 2019.



Source: U.S. Census Bureau's Business Dynamics Statistics

distribution.[12] While the slowdown in worker turnover may partially be attributable to improved employer-employee matches,[13] the broader decline in job reallocation has negative aggregate economic implications, given the important role the process plays in helping to ensure that American workers are employed productively and paid well in return. The weak startup and worker reallocation rates coming out of the Great Recession explains some of the slow productivity and weak wage growth of the 2010s.[14]

Stuck in place

Once a restless bunch, Americans have become more firmly stuck in place over the past two decades than at any period on record. Interstate mobility (i.e., moving across state lines) has historically served as an important mechanism for reducing economic

12 Weingarden, 2017.

13 Pries and Rogerson, 2021.

14 Foster, Grim, and Haltiwanger, 2016; Haltiwanger, Hyatt, McEntarfer, and Staiger, 2021.

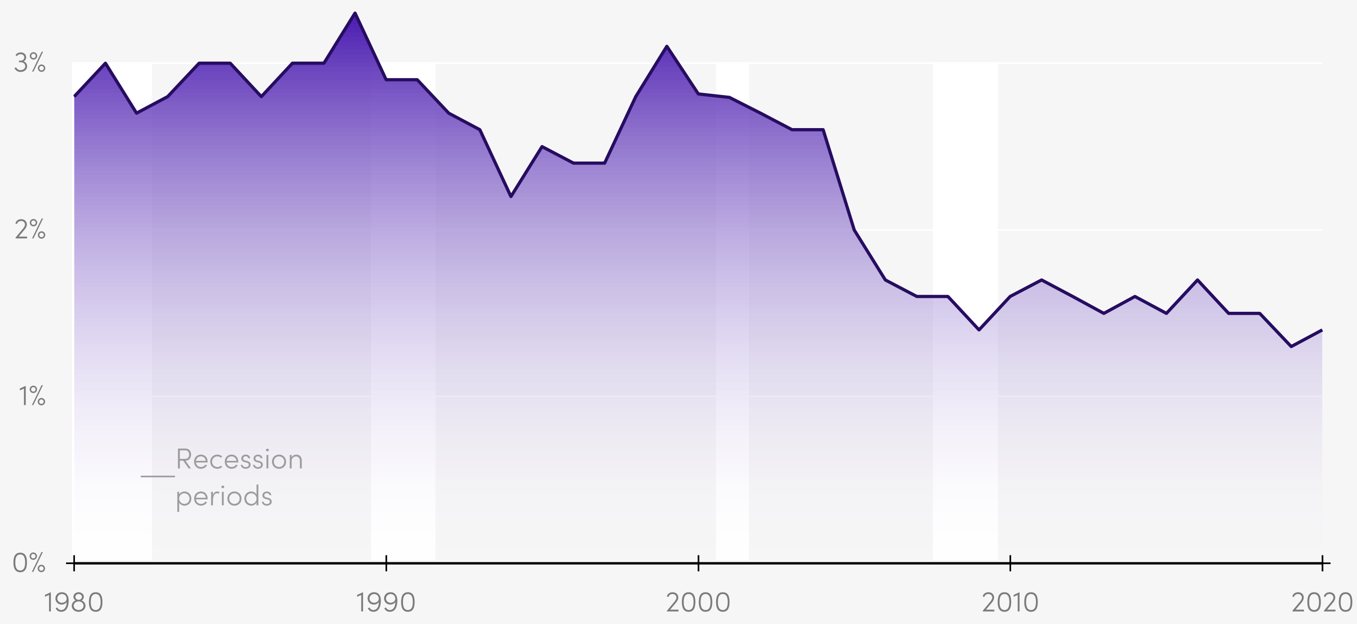
disparities across the country, allowing workers to leave struggling places in pursuit of better economic opportunities elsewhere. However, interstate migration has fallen by half since the 1980s, with much of that decline coming in the immediate run-up to the Great Recession. The interstate migration rate hit a record low in 2019, as Bill Frey from the Brookings Institution has chronicled.[15]

Meanwhile, migration has become increasingly skill-biased, with highly educated Americans moving at much higher rates compared to those who only have a high school diploma.[16] Several factors likely contribute to the decline in mobility, and a perceived reduction in economic opportunities elsewhere appears to be a significant one: between 2000 and 2010, more than half of the decline in residential migration was the result of declines in economic

Figure 6

Americans have never been less likely to move across state lines.

Interstate migration within US population



Source: U.S. Census Bureau's Historical Migration and Geographic Mobility Tables

15 Frey, 2019 and 2020.

16 U.S. Census Bureau, Current Population Survey, 2021 Annual Social and Economic Supplement; Ganong and Shoag, 2017.

migration (i.e., moving because of a job change).[17] Contrary to initial expectations, the pandemic has delivered no observable reversal to this trend. Whether down the street, across town, or across the country, Americans moved less during the pandemic than any time on record.[18] None of this is to say that Americans are satisfied with declining geographic mobility. The share of Americans who report being stuck in a neighborhood they would like to leave has risen by nearly 50 percent over the past four decades.[19]

The forces at work

What explains America's lost mojo? The decline in U.S. dynamism is widespread across sectors and regions of the country, and is mirrored across advanced economies around the globe. This pervasiveness suggests that several different and interrelated forces operating on economy-wide scales are likely behind the development. Disentangling them is difficult, but economists generally see two basic causes: slowing rates of population growth and slowing rates of knowledge diffusion. We would add a third: the generalized, all-encompassing shift towards gatekeeping at every level of economic life, which makes it harder to build, move, switch jobs, start firms, and compete.

Demography

A young and growing population helped buoy the U.S. economy for most of the 20th century with plentiful labor and a growing consumer base. No longer. The 2010s were the second-slowest decade for population growth in the country's entire history, barely beating out the 1930s, which included the Great Depression and strong restrictions in immigration policy.[20] Between 2010 and 2019, 81 percent of counties saw their prime working-age population (i.e., 25- to 54-year-olds) decline (see Figure 7).[21] The share of the country's labor force in their prime entrepreneurship years fell by 7 percentage points from 2000 to 2019.[22] The pandemic pushed annual population growth to 0.1 percent in 2021 – the lowest in the country's history.[23]

17 Hyatt et al., 2016.

18 Frey, 2021.

19 Buttrick and Oishi, 2021.

20 Frey, 2021.

21 Ozimek, Fikri, and Lettieri, 2019.

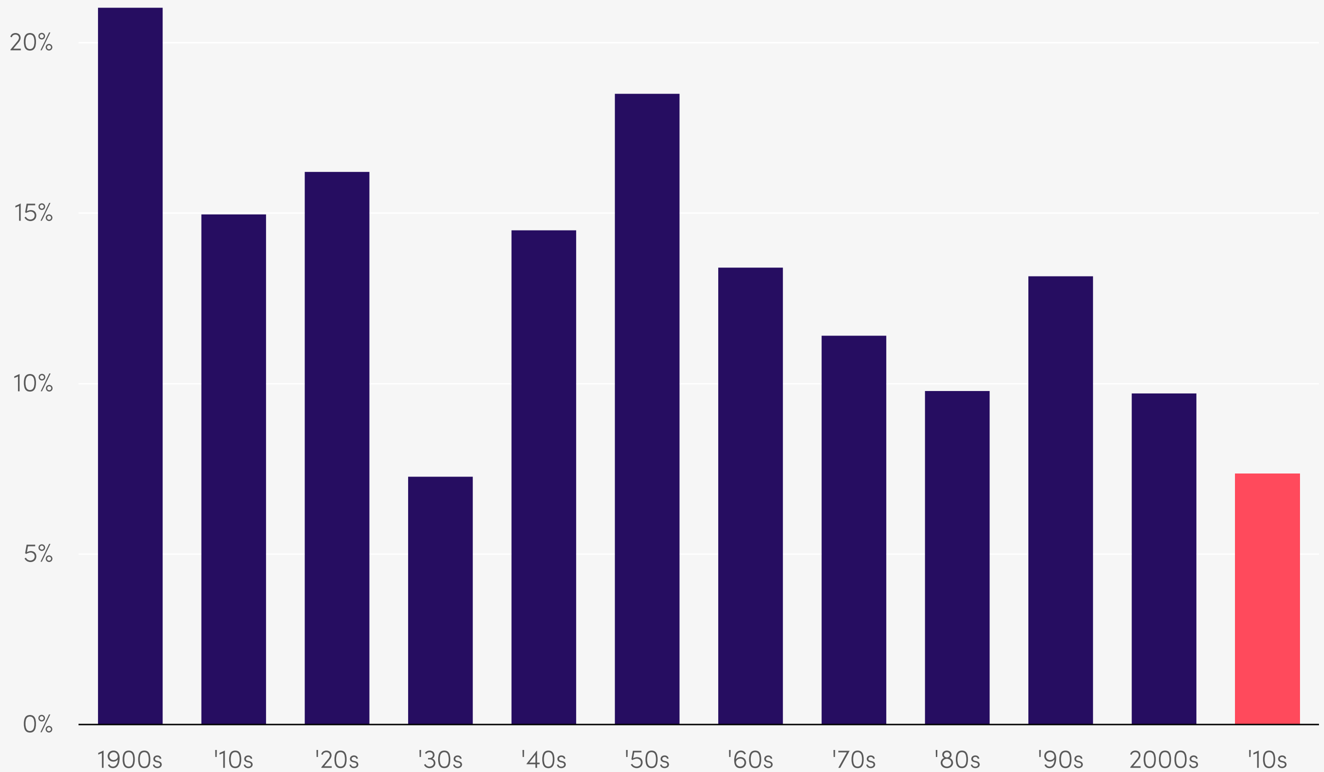
22 Musick, 2020.

23 U.S. Census Bureau, 2021.

Figure 7

The country's population grew more slowly during the 2010s than at any point since the Great Depression.

U.S. population growth rates by decade



Source: Frey, 2021

> ***A declining population means fewer workers and fewer consumers to stimulate economic growth—as well as fewer would-be entrepreneurs.***

This slowdown has many implications, both for labor market outcomes and the broader economy. A declining population means fewer workers and fewer consumers to stimulate economic growth – as well as fewer would-be entrepreneurs. Work by Ian Hathaway and Bob Litan has shown that population growth is a strong contributor to new business formation.[24] Fatih Karahan and colleagues estimate that the slowdown in labor force growth since 1970 may account for 33 percent to 60 percent of the decline in the startup rate. It

24 Hathaway and Litan, 2014.

may also help explain why the startup rate has remained stuck at historically low levels despite the return to broader macroeconomic growth.[25] Even at the county level, population growth is associated with higher startup rates, while a 1 percent loss in population leads to a 2 to 3 percent decline in the local startup rate.[26] With national population growth so slow and localized population losses so widespread, demographically-induced dynamism can no longer be taken for granted.

Knowledge diffusion

The spread of knowledge and expertise is key to an economy's dynamism. While there are inherent measurement challenges at play, a growing body of evidence points to the decline in the rate at which knowledge diffuses through the economy as a cause – not just a consequence – of declining American dynamism.[27] This decline may seem paradoxical in the age of information technology, but economists estimate that diminished knowledge diffusion accounts for up to 70 percent of the observed symptoms of diminished dynamism, from high corporate markups to slowing startup rates and aborted growth trajectories of young firms.[28] Recent research from the Organization for Economic Cooperation and Development (OECD) finds that dynamism's decline has been swiftest in the most digitized and knowledge-centric advanced economies.[29]

Obstructions to the flow of knowledge would be consistent with observations by Ryan Decker and colleagues that high-growth, high-wage startups have disappeared even more quickly than other types of startups.[30] Why might these critical economic inputs – knowledge and ideas – not be flowing as freely as they used to? The answer may be wrapped up in the nexus between technology and market concentration. Digitization offers leading companies compounding advantages that extend their lead and entrench their dominance, making it harder for upstarts and laggards alike to compete. Indeed, further evidence from OECD economists suggests that the hold that superstar firms have over

25 Karahan, Pugsley, and Şahin, 2021. Cross-country research from the OECD finds that demographics appear to be a less important factor, however.

26 Ozimek, Fikri, and Lettieri, 2019.

27 Akcigit and Ates, 2021.

28 Ibid.

29 OECD, 2020.

30 Decker et al., 2016.

The hold that superstar firms have over new knowledge is tighter and longer-lasting than ever before.

new knowledge is tighter and longer lasting than ever before.[31] Overlapping thickets of patents perpetuate the gaps and slow the rate at which new technologies get absorbed by other firms and deployed across the economy. Strategic acquisitions are used to either snuff out would-be competitors[32] or seize innovations to further strengthen incumbent advantage.[33]

Startups play a critical economic role in commercializing innovations, which means their retreat could be a symptom of slowing innovative activity further upstream as well. Falling federal investment in basic R&D – the earliest-stage fountain of new knowledge and where the public sector has the greatest comparative advantage – relative to the size of the economy (or the waning effectiveness of such spending) could be making itself felt in less new knowledge and technology flowing throughout the system, for example, and fewer new business opportunities as a result.[34] To be sure, on many measures the country still produces large crops of extremely innovative, high quality new firms in most years,[35] but the volume, variety, survival, and growth of such firms lags far behind the economy's potential – and its history.

Workers themselves are essential in spreading knowledge and know-how throughout the economy; but face mounting barriers at every turn. The proliferation of restrictive employment covenants such as non-compete agreements prevent knowledge workers from moving to competitors or starting their own firms. Frivolous lawsuits and opportunistic trade secret enforcement actions undermine risk-taking in our most innovative sectors. Fewer spin-offs, fewer job-hops, and fewer cross-country moves all bolster the sequestration of knowledge behind moats of intellectual property and other protections that advantage the goliaths. All of this slows the pace that know-how and innovations filter through the economy, and it translates into fewer opportunities to start and scale new businesses around new ideas.

31 Andrews, Criscuolo and Gal, 2015; Bessen, 2020.

32 Cunningham, Ederer, and Ma, 2019.

33 Alcantara et al., 2021.

34 See Bloom, et al., 2019, for a related discussion.

35 Guzman and Stern, 2020.

Sclerosis

In 1982, economist Mancur Olson coined the term "institutional sclerosis" to describe the process through which rich, stable democracies become weighed down with vested interests, bureaucratic overreach, and forms of inefficiency and gatekeeping over time.[36] This sclerosis makes economies slower and less flexible, eventually sapping market-based democratic systems of much of their strength and reducing productivity, growth, and individual economic mobility. One can easily see this diagnosis applying to the United States today, where mojo-destroying inaction and stasis define so many aspects of economic life.

Perhaps nowhere is the sclerotic build-up more apparent than in sectors touching the built environment itself. The American construction industry has experienced almost no productivity gains in multiple generations.[37] It costs more to build new transportation infrastructure in the United States than nearly anywhere in the developed world.[38] This chokes off the economic potential of major infrastructure investments. It suggests that absent a broader institutional cleanup, even major federal efforts to modernize and expand the country's infrastructure are at risk of getting stuck in a morass of permitting delays and cost overruns – and ultimately underdelivering for the American people. As Brink Lindsey of the Niskanen Center warns, "a government that cannot build things on time and on budget is a government incapable of providing the public goods the 21st Century demands."[39] Indeed, our inability to build to meet even our most exigent priorities threatens the nation's ability to successfully transition to a lower carbon economy.[40]

At the federal level, the mass of rulemaking appears only to grow. Declining dynamism writ large cannot be pinned on the growing volume of federal regulation alone,[41] but complexity is a gift to large incumbents and vested interests all the same. What happened to the country's banking sector in the wake of the 2008-09 financial crisis is telling. As tomes of new financial rulemaking were spun in the wake of the crisis, entrepreneurship in the country's traditional banking sector was completely neutralized for nearly a decade.

36 Olson, 1982.

37 McKinsey Global Institute, 2017.

38 See, for example, Eno Center for Transportation, 2021, and Levy, 2021.

39 Lindsey, 2021.

40 Powell, 2022.

41 Goldschlag and Tabarrok, 2018.

More than 1,500 new banks were chartered in the 10 years prior to the financial crisis; between 2011 and 2018, only 14 were.[42] Small banks were strained, large banks consolidated, and small and risky traditional business lending overall fell dramatically. Measures to stabilize the financial sector were surely necessary, but a more adaptive and responsive political system would have been able to monitor unintended consequences and fix them; instead, they have been left to fester.

The U.S. economy is now replete with institutional gatekeepers who, after securing their own preserve, close the door to opportunity behind them.

If this institutional malaise were only a federal phenomenon it might feel more tractable. However, everything from local permitting and zoning rules to poorly crafted state environmental impact assessments conspire to stop progress in its tracks at every turn. From neighborhood associations to state licensing boards, the U.S. economy is now replete with institutional gatekeepers who, after securing their own preserve, close the door to opportunity behind them. With respect to building, this manifests itself in private litigation to stop key infrastructure projects that might connect low-income workers with job opportunities, and in vocal community opposition to even the most modest attempts to densify development patterns or build anything but single-family housing in opportunity-rich neighborhoods. If such tactics do not prevent projects from proceeding altogether, they dramatically raise the costs, ensuring that the country accomplishes less with the resources at its disposal.

The ensuing distortions are flabbergasting: the country's most successful metropolitan agglomeration, the San Francisco Bay Area, has been shedding domestic migrants for years, unable to build sufficient housing to feed what should be the country's most magnetic industry cluster and opportunity-rich job market. Such cautionary tales barely scratch the surface of how deeply the tyranny of NIMBYism has harmed workers and reduced economic growth and dynamism. Researchers Chang-Tai Hsieh and Enrico Moretti found that restrictive land-use regulations in our most productive cities have exacted a truly staggering toll, reducing wage growth and dragging GDP growth in American cities down by 36 percent over the past five decades.[43]

42 EIG analysis of FDIC data; Fikri, 2020.

43 Hsieh and Moretti, 2019.

There are analogues across economic and social life, from finance to housing, in which arguably fair competition in one period gave way to unfair competition in the next. Competitive, contestable market conditions need to be continuously secured, because the winner in one period has every incentive to use all tools at his or her disposal to ensure they are the winner of each subsequent period too. In the social realm, this behavior can be seen in the "opportunity-hoarding" of the upper-middle classes, as Richard Reeves puts it, where public policy at all levels is coopted to reinforce the advantages of the affluent and upper middle classes, distorting the meritocracy much like a leading firm might rationally use its available means to distort the market in its favor.[44]

The public's weapons for safeguarding competition in markets–proactive and robust antitrust enforcement, competent regulators, and insurgent entrepreneurs – are all flagging. Antitrust enforcement actions have been minimal since the mid-1990s, and enforcement agency appropriations have fallen for a decade.[45] As knowledge, technology, and business grow increasingly more complex, regulators with limited resources and capacity are at ever greater risk of capture by incumbent interests. And a negative feedback loop may already be preventing startups from entering new markets, further cementing incumbent advantage and deterring future startup activity.

In the end, sclerosis and gatekeeping are detrimental because they prevent people from accessing economic opportunity. They raise the cost of building things – literally and figuratively – in the United States, diminishing the pace of progress and restricting how broadly the benefits of progress can spread. Broad institutional shortcomings that make it hard to afford housing, change careers, or build a business constrain the opportunity sets within which individuals make economic decisions. Institutional sclerosis obstructs the sort of risk-taking that is the lifeblood of a dynamic economy.

44 Reeves, 2017.

45 Kades, 2019.

02 How Workers Benefit from a Dynamic Economy

The simplest way to understand how workers directly and indirectly benefit from a dynamic and changeful economy is to examine dynamism's essential role in:

- creating jobs;
- boosting wages; and
- providing economic opportunities for less advantaged workers.

Creating jobs

New firms power a healthy job market. The most successful young firms in any given year are responsible for nearly all of the economy's lasting net job creation.[46] From 1990 to 2006, new firms created an average of 2.8 million jobs each and every year. That figure fell by more than one-fifth to 2.3 million following the Great Recession, after which it failed to recover. The impact has been significant. Recent research from the OECD suggests that a 20 percent decline in startups (essentially what the United States has experienced with the Great Recession) reduces total employment down the road by 0.7 percent after three years and 0.5 percent after 14 years.[47] In other words, the startup shortfall coming out of the Great Recession translated into a national deficit of well over half a million jobs by 2019.

> *The most successful young firms in any given year are responsible for nearly all of the economy's lasting net job creation.*

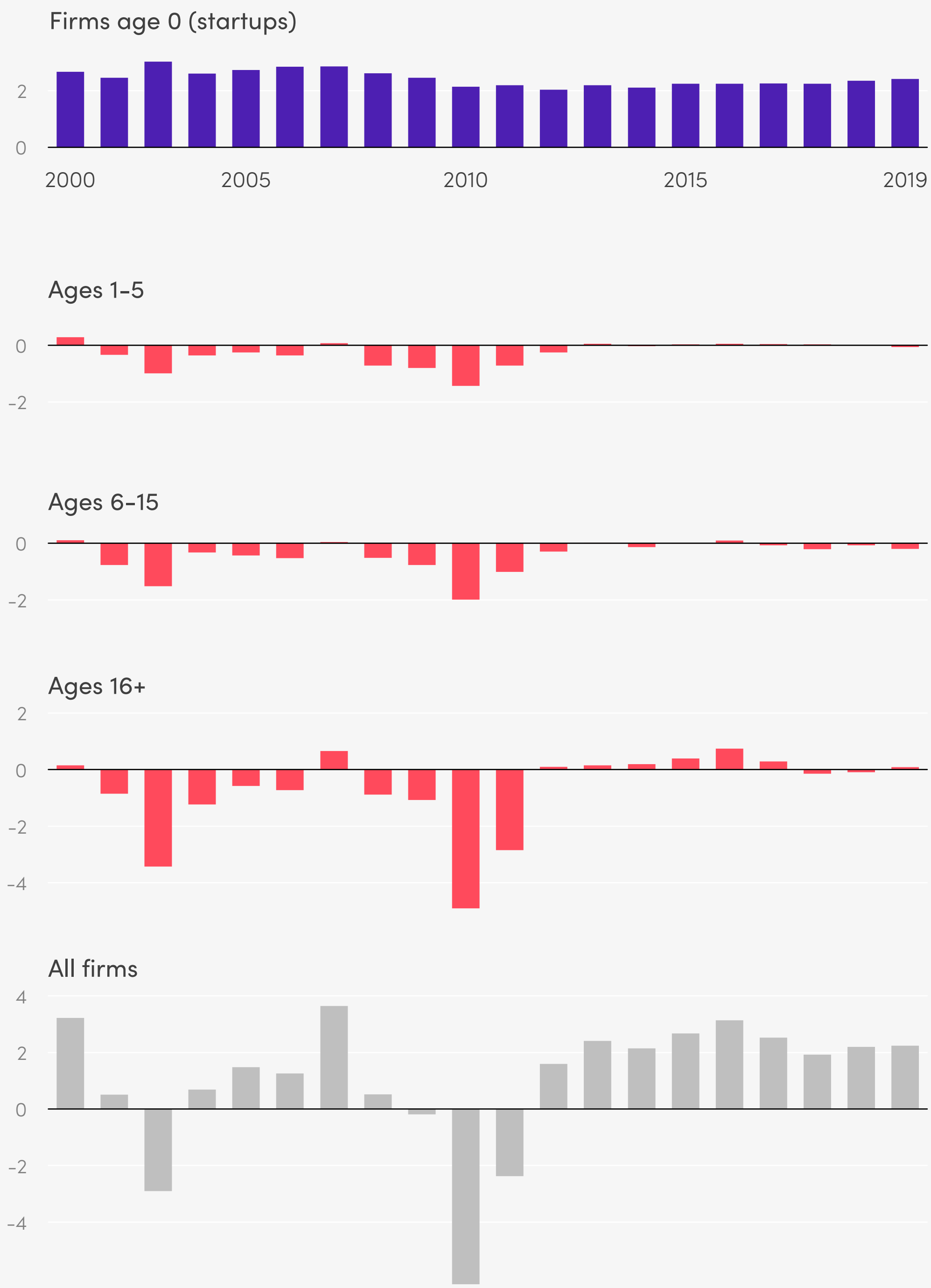
46 Haltiwanger et al., 2017a.

47 OECD, 2020.

Figure 8

Nearly all of the country's net job creation has come from startup businesses over the past two decades.

Net job creation (millions)



Source: U.S. Census Bureau's Business Dynamics Statistics

For all the pain that they cause, recessions can perform a salutary function in the economy at large. Firms generally shed their least productive workers in a downturn, and downturns are usually hardest on the least productive firms. This creates an opportunity for new, fast-growing, and more productive firms to expand on the other side, offering laid-off workers better matches and better wages to fuel an even stronger bounce back. Tellingly, the Great Recession had less of a "cleansing" effect on the economy than past recessions (meaning the rate at which workers were reallocated from less productive to more productive firms was far lower), in large part because new firm creation rates were so weak in its aftermath.[48] Steven Davis and John Haltiwanger show this weakness was at least partly due to the fact that the Great Recession was precipitated by a dual housing and financial crisis, affecting both household equity and credit markets – two essential sources of startup capital – severely.[49] All the same, one of the reasons the employment recovery from the Great Recession took so long was because fewer startups were there to help productively reabsorb the workers hit hardest by the downturn. As a rule, established firms just do not grow quickly enough during expansions to pick up all of the slack they shed during downturns.[50]

Boosting wages

Workers benefit when there is strong competition for their labor. Yet, as high-growth young firms disappear and older incumbents loom more dominant in labor markets, that beneficial competition has weakened substantially.[51] Ioana Marinescu estimates that over 60 percent of local labor markets in the United States are highly concentrated, covering one-fifth of the U.S. workforce.[52] Fewer employers means fewer potential buyers of an individual's labor and greater likelihood that a worker must simply accept terms and wages set by whichever firm is hiring. This imbalance not only translates into less job-to-job mobility, but also into worse wage growth.[53]

48 Foster, Grim, and Haltiwanger, 2016.

49 Davis and Haltiwanger, 2019

50 Haltiwanger, et al., 2012.

51 For a thorough review of the literature, see Boushey and Knudsen, 2021.

52 Marinescu, 2021.

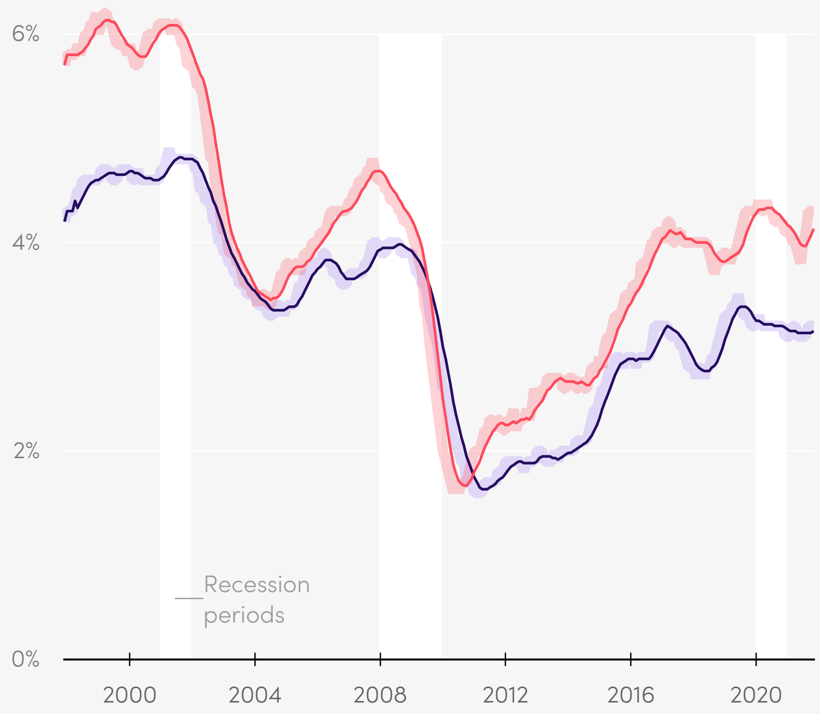
53 Benmelech, et al., 2018.

More competition among firms, by contrast, gives workers leverage. With competing offers in hand and better alternatives a click away, workers have more choice and power, and thus can often bargain for higher pay. Nowhere is this more apparent than in a comparison of wage growth rates for people who switch jobs versus those who stay in their current jobs. Job switches are strongly correlated with wage growth, both for the individual[54] and the broader economy.[55]

Figure 9

Job switchers consistently enjoy higher wage growth than other workers.

Median wage growth



Source: Federal Reserve Bank of Atlanta's Wage Growth Tracker

54 Topel and Ward, 1992.

55 Haltiwanger et al., 2018; Moscarini and Postel-Vinay, 2016.

Successful new startups generate much of the country's long-term productivity growth with their innovations, which include new business models and new ways of employing people.

Even in the labor market, the role of startups as catalysts in a dynamic system is critically important. The formation of new firms and their subsequent hiring activity triggers job switches that cascade through the labor market. These switches help improve the quality of employer-employee matches. And as discussed above, such labor market dynamism represents a broader reallocation of the country's workforce towards more productive, faster-growing, higher-paying firms – an essential process for sustaining the productivity growth that allows for living standards to rise. Indeed, successful new startups generate much of the country's long-term productivity growth with their innovations, which include new business models and new ways of employing people.[56] For individuals, job switching is a critical method of accumulating human capital and associated with stronger lifetime earnings.[57]

Providing opportunities for less-advantaged workers

Robust startup rates and healthy labor market churn are especially beneficial for workers with the weakest leverage in the labor market.

Robust startup rates and healthy labor market churn are especially beneficial for workers with the weakest leverage in the labor market, particularly younger workers and those who have the lowest levels of skill, wealth, social connections, or educational attainment. Startups are disproportionately likely to hire young people, immigrants, less-educated adults, and new labor market entrants, for example.[58] And Steve Davis and John Haltiwanger calculate that when the workforce turnover rate (the sum of total hires and separations over total employment) falls by 1 percentage point, the employment rate for men with less than a high school diploma falls by 0.8 percentage points. It falls by 0.5 percentage points for equivalently-educated women (see Figure 10).[59] The situation is even worse for young workers in their crucial early years in the labor market: for that same decline of 1 percentage point in the worker turnover rate, the employment rate for workers under the age of 25 with less than

56 Alon et al., 2018; Haltiwanger et al., 2014.

57 Engbom, 2022.

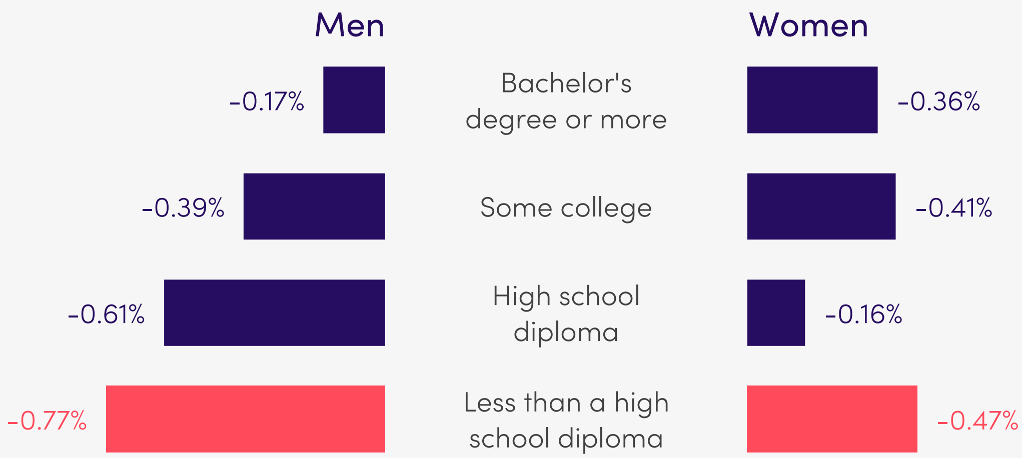
58 Nystrom, 2011; Ouimet and Zarutskie, 2013; Davis and Haltiwanger, 2019.

59 Davis and Haltiwanger, 2014.

Figure 10

Less churn in the labor market makes it harder for jobseekers with less education or work experience to find jobs.

Change in employment from a 1 percentage point decline in the worker turnover rate



Source: Davis and Haltiwanger. Working Paper 20479, National Bureau of Economic Research, 2014

a high school diploma declines by 1.4 percentage points for men and 1.0 percentage point for women.[60] Thus, less churn in the labor market leads to less employment for those with the most tenuous attachment to it. The slow recovery in turnover following the Great Recession therefore seems correlated with the slow jobs recovery experienced by so many segments of the labor force (it took 13 years to recover all jobs lost in the Great Recession, and not until 2019 did labor market turnover recover to 2006 levels).[61]

60 Ibid.

61 Defined as total separations rate in the BLS's Job Openings and Labor Turnover Survey.

> ***More frequent job openings allow relatively disadvantaged workers to get a foot on the first rung of a career ladder.***

Job churn and opportunity go hand in hand because flux creates more frequent job openings, allowing relatively disadvantaged workers to get a foot on the first rung of a career ladder. Labor market fluidity thus provides chances to limit spells of unemployment, accrue critical on-the-job human capital, and seek out progressively better job matches with higher wages. Startups, meanwhile, tend to operate outside of the box and may intentionally set out to hire from varied backgrounds. They offer employment opportunities for individuals with greater risk tolerances or particular ambitions and preferences that allow for more non-standard matches to be made. In a less dynamic labor market with fewer matches and fewer disruptive new employers coming on the scene, workers from weaker positions or untraditional backgrounds have a much harder time competing successfully against those with stronger credentials, more conventional career histories, or better connections. In other words, a dynamic labor market in which new firms apply pressure to incumbents and all firms are forced to compete harder for labor helps those who are traditionally disadvantaged or overlooked.

Box 2

The symbiosis at the heart of creative destruction

Few events are as traumatic for a worker as losing a job when their employer goes belly up. Yet the closing of unproductive enterprises and the recycling of their assets into new and better vocations is central to the healthy functioning of a market economy – and to the longer-term well-being of workers themselves.

Colorado shows the power of a high-churn, dynamic economy in action. The state has a firm death rate averaging 8.4 percent in recent years – higher than the 8.1 percent average national rate. Yet its startup rate averaged 9.3 percent, higher than the national startup rate and easily eclipsing the statewide rate of firm closure. In fact, states with elevated firm death rates tend to have even higher startup rates, underscoring how creation and destruction intertwine to fuel business dynamism.[62] And what does higher firm-level churn mean for a state's workers? From prime age employment rates to wages at all tiers of the distribution, Colorado outperforms the nation in terms of worker well-being and the abundance of economic opportunity.

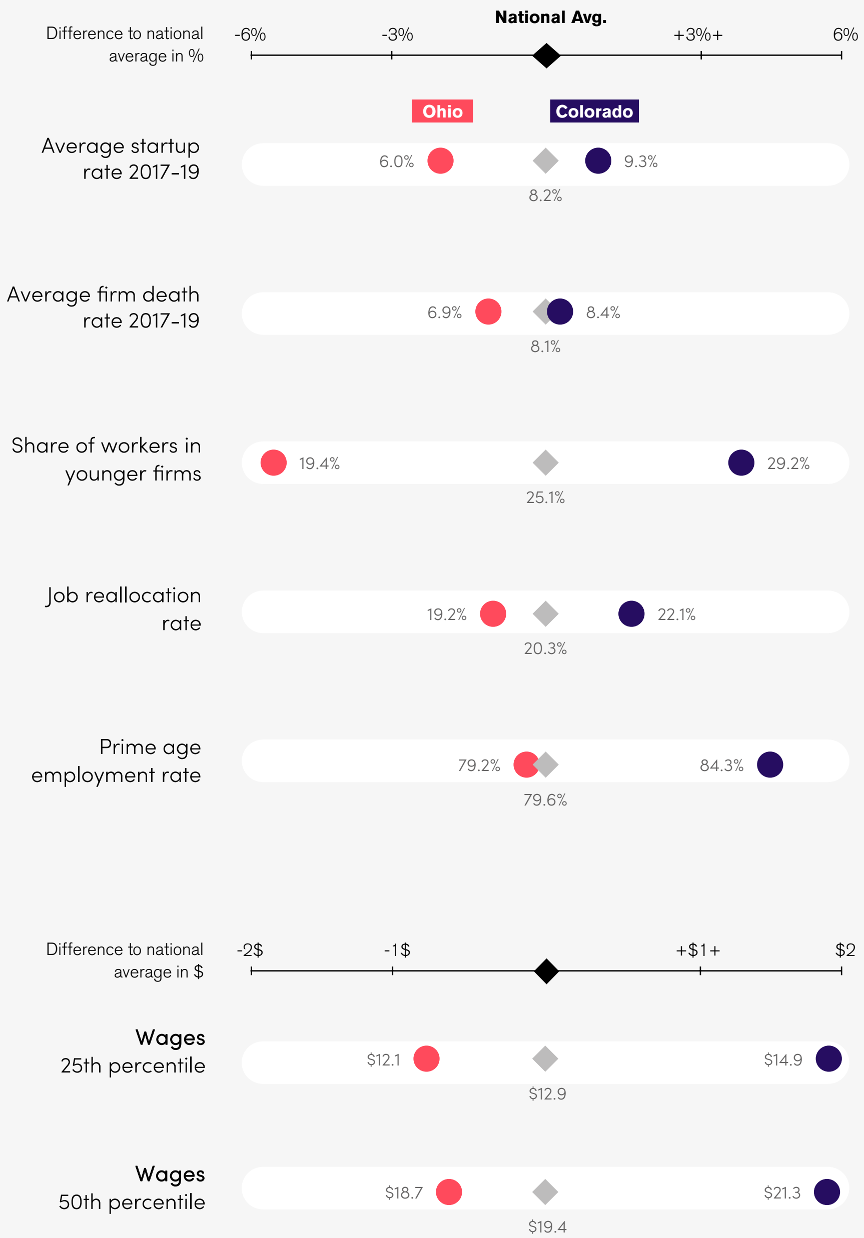
Halfway across the country, Ohio demonstrates the false promise of an economic "stability" premised on low rates of churn and change. Only 6.9 percent of Ohio's firms closed in the average year leading up to the pandemic, well below the national rate. Yet the intensity of renewal was even lower; the state's 6.0 percent startup rate over the past three years was one of the lowest in the country. Fully fourth-fifths of the state's workforce enjoys the assumed security of working for an old, established firm, but prime age employment is low, and wages lag at all points in the distribution. Ohio – like all of its peers across the Eastern Heartland – is already farther down the slope

62 EIG, 2017.

of diminished dynamism than the country as a whole, and its workers are worse off as a result. In the country's lagging regions, stasis is the problem. To break out of it, the velocity of creative destruction needs to be rekindled.

Table 1

Dynamic economies outperform static ones across measures of opportunity.



Source: U.S. Census Bureau's Business Dynamics Statistics, 2019; U.S. Census Bureau's Current Population Survey, 2018.

03 The Path to Renewal

As the country emerges from the COVID-19 pandemic, policymakers confront a high-stakes opportunity to restore U.S. economic dynamism and forge a more optimistic, aspirational future for American workers. We believe such an agenda should start with three fundamental policy goals that, if met, would deliver large and pervasive benefits for all Americans:

- First, dismantle federal - and state-level barriers to competition and mobility in the labor market so that workers can access the jobs they want, in the places they choose, at the wages they deserve.

- Second, embrace our national advantage as a magnet for skilled immigration to fuel entrepreneurship and innovation, boost demand for American workers, and support the revival of struggling regions.

- Third, end the tyranny of NIMBYism to make it easier, faster, and more cost-efficient to build housing and infrastructure so that America's built environment can accelerate, rather than stifle, economic adaptation and resiliency.

While the political challenges of achieving these goals are not insignificant, their budgetary impacts would be. At a time when the sticker shock of federal spending has itself become a major barrier to legislative progress, the U.S. can nevertheless reap massive economic rewards from extremely low-cost policy initiatives. Let's look at each in turn.

Dismantle barriers to competition, mobility, and knowledge diffusion in the labor market

Entrenched interests, usually in the form of incumbent businesses, industries, and professional licensing and lobbying associations have succeeded at steadily reducing the forces of competition that benefit American workers. Gatekeeping incumbents have used law and regulation to restrict how and where workers can deploy their talents in the labor market, while policymakers have largely been asleep at the wheel. In fact, we've come to accept interference in the basic competitive functions of the labor market as a normal part of life, rather than a sometimes necessary exception. And workers have paid the price. A dynamism agenda should start with aggressively rooting out barriers that limit Americans' ability to take risks, build businesses, switch jobs, or move to different parts of the country.

> ***We've come to accept interference in the basic competitive functions of the labor market as a normal part of life, rather than a sometimes necessary exception. And workers have paid the price.***

Nothing better sums up the creeping shift away from dynamism than the proliferation of non-compete agreements. Non-competes prohibit workers from fully exercising their freedom to switch jobs for better opportunities or to use their work experience to start a new business.[63] A worker subject to such an agreement signs a contract preventing them from becoming or working for a "competitor" to their former employer in the near future, often even if they are laid off or fired. Practically, non-competes block workers from being poached for higher pay, jumping to a peer company for better benefits or working conditions, spinning out to create their own new and related enterprise, or even deploying their talents in a new high-growth startup that could become their community's next major anchor employer. The academic literature finds negative effects of non-competes across the board, from stifling entrepreneurship and blunting competition in product markets to suppressing worker wages and reducing the survival rate of young firms.[64] Economists including Michael Lipsitz and Evan Starr have also found immediate worker benefits in states that have curtailed their use.[65]

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63 Lettieri, 2020; Marx, 2018; U.S. Department of the Treasury, 2016.

64 Lipsitz and Tremblay, 2021; Starr, et al., 2018; Marx, 2018a; Jeffers, 2019.

65 Lipsitz and Starr, 2021; More literature is reviewed in O'Donnell, 2021.

Non-compete agreements are anathema to the basic principles of a free and fair market, yet they have proliferated rapidly: Low-end estimates suggest they cover nearly one-fifth of all U.S. workers, including millions of low-wage workers in industries such as fast food restaurants, custodial services, and transportation.[66] They are often quite difficult for workers to challenge in legal settings.[67] As a result, non-competes trap millions of workers in their current jobs.[68] Fortunately, progressive and conservative reformers alike have taken notice. For example, the bipartisan Workforce Mobility Act currently before Congress would ban the use of these agreements nationwide under most circumstances. Not waiting for Congress to act, many states are taking meaningful steps to curtail the use and abuse of non-competes[69]: fully half of all states considered non-competes reform in 2021 alone.[70]

Non-competes trap millions of workers in their current jobs.

Just as non-competes give employers the means to limit competition for their workers, onerous occupational licensing requirements enable incumbent businesses to erect barriers to competition within their industries. Seminal research by Morris Kleiner demonstrates that licensing requirements applied to an estimated 1 in 20 U.S. workers in 1950 but have since spread to an estimated 29 percent of the workforce.[71] Overly expansive licensure has been shown to impose higher prices on consumers, restrict the geographic mobility of licensed workers, raise the costs associated with entering into certain professions, and reduce the wages and economic opportunities of unlicensed workers.[72] These drawbacks have motivated bipartisan calls for reform focused on rigorous cost-benefit analyses, uniform standards and reciprocity across states, and outright elimination of requirements for entry into certain professions.[73]

The proliferation of non-competes and licensing requirements have harmed U.S. dynamism in another way: reducing the spread of

66 Rothstein and Starr, 2021. Some estimates, such as EPI, 2019, put the number of covered workers far higher.

67 Marx, 2018b.

68 Starr, 2019.

69 Economic Innovation Group, 2021.

70 Beck Reed Riden, 2021.

71 Kleiner and Krueger, 2013; Institute for Justice, 2017.

72 Nunn, 2018; Johnson and Kleiner, 2017; The White House, 2015 and 2020.

73 Kleiner, 2015.

knowledge and know-how throughout the economy. By making it more difficult to switch to better jobs, start a better company, and move to a better area, they weaken the invisible circulatory system that distributes expertise and makes innovation and productivity gains possible.

The exigencies of the pandemic have revealed the costs of such labor market distortions. Millions of workers have gone freelance and don't want to go back to a traditional work setting. States have suspended certain licensing requirements or adopted reciprocity with other states specifically for healthcare workers in order to fill critical skill gaps.[74] The worker shortage across the economy may make employers more amenable to non-competes reform, too, as the cost of measures that gum up the labor market make themselves felt more acutely.

Embrace our immigration advantage

Better immigration policy is one of the most powerful tools available for boosting American dynamism. However, our current immigration regime is ad hoc and poorly designed, and it fails to place sufficient emphasis on maximizing the economic benefits of immigration to the American economy and its workers. To boot, the number of legal immigrants into the United States has dropped severely in recent years due to policy shifts, pandemic effects, and a bureaucracy crumbling under its own weight and unable to process even simple visa renewals. The result was a multi-decade low in net international migration in 2021, falling three-quarters from over 1 million net newcomers in 2016 to fewer than 250,000 in 2021.[75]

> ***Better immigration policy is one of the most powerful tools available for boosting American dynamism.***

The case for high-skilled immigration should be self-evident. Skilled workers offer high local economic "multipliers," given their higher wages, meaning their economic contributions locally and nationally are positive and outsized.[76] Knowledge workers – native and foreign-born alike – are complementary to each other, and demand for knowledge workers is nearly unlimited in today's economy; the supply of them is the binding constraint on economic growth. Thus, the conventional worries about substitution or crowd-out with vulnerable native born

74 Hentze, 2020.

75 U.S. Census Bureau, 2021.

76 National Academies, 2016.

workers that plague political debates over immigration do not apply. Instead, welcoming more highly skilled immigrants would help the country perform at the frontiers of its potential.

Research by Pierre Azoulay and colleagues also shows that immigrants' propensity towards entrepreneurship means they play a much more significant role as "job creators" than "job takers"[77] in the U.S. economy. Put immigrants' many economic roles together and their consumption, investment, and entrepreneurship all help to boost demand for domestic labor, supporting native employment and wages. Importantly, expanding the flow of high-skilled immigration would yield powerful benefits throughout our economy quickly and at extremely low cost.[78]

It is difficult to overstate how badly today's U.S. immigration policy falls short of its potential. This country is unique in its status as the overwhelmingly preferred destination of would-be migrants across the world.[79] As such, simply by enacting sensible policies, we can enjoy the presumption of practically limitless access to scientists, engineers, medical professionals, and other in-demand talent the world over. This attractiveness to talent is arguably the single greatest advantage any nation can possess. But instead of embracing it, we continue to languish in an incoherent and self-defeating approach that fails to identify the right goals or facilitate the best outcomes. We must do better.

Pro-dynamism immigration reform should start by improving existing pathways like the H-1B visa so that they are easier to administer, decoupled from a single employer, and more readily accessible to new, small, and medium-sized enterprises. But improving existing pathways is only the beginning. The United States needs new pathways for skilled immigrants that are linked to specific goals, namely: increasing entrepreneurship, boosting STEM talent in the workforce, and bolstering the economic well-being of lagging regions. And rather than caps, our skilled immigration policy should be oriented around aggressive targets for welcoming the world's most talented and hard-working people.

Perhaps the most obvious way to expand high-skilled immigration is by creating a startup visa for immigrant entrepreneurs. Such

77 Azoulay et al., 2020.

78 Bloom, et al., 2019.

79 Gallup, 2018.

a program would create a special fast-track for those with promising ideas, proven fundraising ability, and the desire to build their businesses in the United States and create jobs for native-born Americans. Immigrants already contribute in profound ways to American entrepreneurship. On average, immigrants are significantly more likely to start a business than native-born Americans, and they are responsible for founding a large share of today's biggest and most successful companies.[80] The global competition for entrepreneurial talent will only grow fiercer in the coming decades. Establishing a startup visa is an excellent way to help ensure that the short-run boom in pandemic-era startups leads to a lasting and widely beneficial revival in American entrepreneurship.

The United States should also employ immigration as a regional economic development tool. For example, a place-based "heartland visa" would provide benefits and incentives to skilled immigrants who settle in parts of the country contending with economic stagnation and the loss of prime age workers.[81] The economic impact would go beyond supplying needed skills to local businesses. Newcomers would bolster housing markets, supporting the wealth of local residents. They would fortify municipal tax bases, thereby improving services for native families. Their presence would improve local economic prospects, drawing new businesses and employers to places struggling with attrition. And since immigrants have a high propensity for entrepreneurship,[82] heartland visas would recruit people disproportionately likely to start businesses and drive growth in the future to areas that have been left behind. While immigrants have long played these important roles in legacy cities, national immigration policy itself hasn't been designed with the needs of such communities in mind. It's time for that to change.

> ***Boosting immigration would help address one of the major forces behind the decline of U.S. dynamism: rapid demographic decline.***

Boosting immigration would also help address one of the major forces behind the decline of U.S. dynamism: rapid demographic decline. Indeed, the precipitous drops in fertility and population growth now underway in the United States represent an unprecedented challenge for policymakers. Never before has this country had to confront the reality of sustained demographic decline or a shrinking

80 Kauffman Foundation, 2015; Center for American Entrepreneurship, 2017.

81 Ozimek, Fikri, and Lettieri, 2019.

82 Azoulay et al., 2020; Kerr and Kerr, 2020.

prime-age workforce. America may never again achieve the demographic vitality that characterized the 20th century, but we need not accept the dire consequences of demographic collapse.

Build, baby, build!

The built environment must be adaptable for the economy to evolve. Local housing supplies must be elastic enough to ensure that hubs of innovation can also serve as destinations for workers seeking better opportunities. Cleaner technologies must be both manufactured and deployed in order to decarbonize the economy. Productivity-enhancing infrastructure investments must be realized to deliver social and economic dividends. But on all of these fronts, the United States has become mired in a costly artificial paralysis that has turned our nation's built environment into a hostage of interests deeply opposed to its continued development.

The practical inability to build so many things across so much of the country is an almost entirely self-inflicted wound and serves as a hefty tax on American dynamism. We've allowed pervasive, supply-constraining regulations to disfigure the housing market – and then are puzzled over why housing is so scarce and expensive in places where demand is the highest. We've allowed poorly designed policy and regulatory complexity to make efficient infrastructure spending impossible – and then wondered why our basic infrastructure is the most expensive to build of anywhere in the developed world. We hear countless exhortations about the threat of climate change – then watch as the necessary process of transitioning to a cleaner energy economy get stymied in the purgatory of permitting hurdles and community-level vetoes.

Simply put: NIMBYism has become nothing short of a monumental threat to progress and prosperity.

> ***Simply put: NIMBYism has become nothing short of a monumental threat to progress and prosperity.***

Aggressive local, state, and federal leadership will be required to pull the country out of the morass of regulatory barriers and stakeholder vetoes that prevent the foundation of the future from even being laid. A handful of localities across the country have begun the slow process of reforming local land-use and zoning codes in recognition of how exclusionary practices have driven up housing prices, fueled inequality, and undermined economic prospects and wealth accumulation for low-income families. More states should follow the lead of Massachusetts, for example, which signed into law in January 2021 a requirement that municipalities allow for multi-family real estate development around transit stations. The core goal for reformers should be simple: allow more of the U.S. housing market to function as an actual market – one in which demand can efficiently be met with supply, and special interests are not empowered to block progress at every turn.

States and the federal government should fully leverage the power of the purse to incentivize state and local land-use reform. Our federalist system grants localities considerable rights around land use, but that does not mean the federal government must remain agnostic about local planning decisions and subsidize regressive practices with far-reaching negative externalities. Instead, eligibility for key funding streams around infrastructure and housing, to name a few, should be predicated on a minimum level of land use liberalization and procedural efficiency. Places that implement best practices should be rewarded accordingly. And federal lawmakers need at long last to tackle the massive policy-related inefficiencies that plague federal infrastructure spending and dilute its economic benefits. At the end of the day, *how much* is spent on infrastructure – the question that still dominates political discussions – only matters in relation to *how efficiently* that money is actually spent.

These three pillars are of course only the beginning of a fully formed dynamism agenda. We also need greater and more effective federal investment in basic research and development, for example, as well as a modernized approach to innovation policy. We need a social safety net that encourages the kinds of healthy risk-taking that is essential to a mobile and entrepreneurial society. We must do better at retraining workers and helping them rebound from economic shocks. We should examine how our system of intellectual property protections can be improved to balance tradeoffs and prevent abuses that work against the public interest. And drawing from the lessons of the tepid recovery from the Great Recession, we need a macroeconomic policy environment that pushes the labor market to operate at full employment, with all the attendant benefits it achieves for American workers.

At its heart, the task is to improve the economy's circulatory system so that it can naturally deliver better outcomes for workers, families, and communities, thereby limiting the scale and cost of other interventions.

Conclusion

Working Americans have more to fear from an economy that is changing too little and too slowly than from one that is quickly adapting and advancing to new frontiers. To see that this is true, we need only look back to our not-too-distant past, when standards of living were booming alongside rates of mobility, job switching, population growth, and startup activity that make those of the 21st century seem anemic by comparison.

But in recent decades, policymakers have ignored signs that the dynamic mechanisms at the heart of our economy were growing weaker. Worse still, policy failures at every level of government have contributed to the sclerosis that has slowly robbed the country of its vitality. From NIMBYs to non-competes, vested interests have steadily weighed the economy down with artificial barriers to mobility, competition, and adaptation. These barriers have made our economy less abundant in opportunity and less able to improve the lives of ordinary Americans.

> *From NIMBYs to non-competes, vested interests have steadily weighed the economy down with artificial barriers to mobility, competition, and adaptation.*

There are many reasons to be hopeful in spite of the challenges. The United States remains an enormously prosperous and capable country – one with unique cultural and economic advantages, such as our historic openness to change, our embrace of pluralism, and a deep-seated, ambitious brand of optimism. The speed and resiliency with which the U.S. economy adapted to the coronavirus pandemic are proof that the country's dynamism may have subsided, but its embers can be rekindled. Now, policymakers must seize the opportunity to turn temporary gains into something sustainable, securing a dynamic and prosperous future for generations of American workers to come.

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