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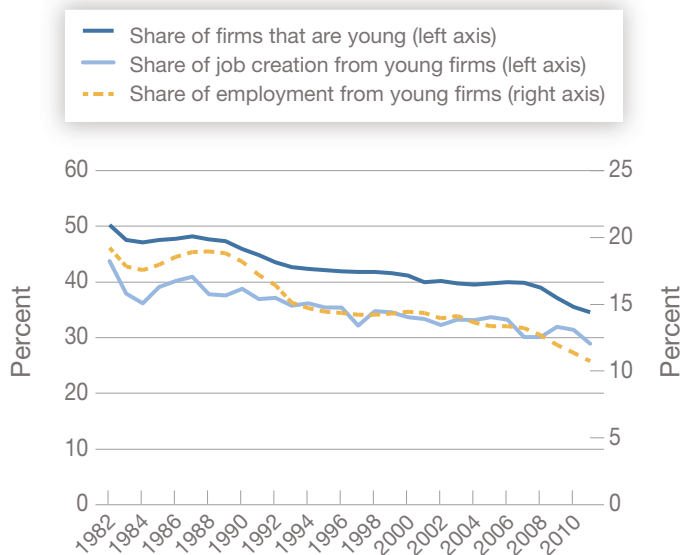
Entrepreneurship in America

Challenges and Opportunities

Entrepreneurs in the United States remind us of fundamentally American qualities: an innovative spirit and dynamism that creates jobs and spurs research and development. And though the contributions of entrepreneurs vary widely, the data broadly corroborate that they do, in fact, add value to the U.S. economy. More specifically, entrepreneurs are an important source of job creation,¹ innovation,² increased business dynamism that supports competitive labor markets,³ and economic mobility for those seeking a pathway to the middle class.⁴

However, in contrast to the broad belief that the United States is a leader in entrepreneurial activity, evidence suggests otherwise. Examining data on young firms—the engine of job creation—indicates a decline for several decades in the United States.⁵ There is a downward trend in both the number of young firms as a percentage of all businesses and young firms’ share of job creation and employment (Figure 1).⁶ We see the same downward trend in many different industries, such as construction, retail trade, agriculture, and services.⁷ And on a comparative basis,

FIGURE 1
Declining Share of Activity from Young Firms
(Firms Age 5 or Less)



SOURCE: Decker et al., 2014, p. 16. Copyright American Economic Association; used with permission of the *Journal of Economic Perspectives*.

NOTE: Calculations are from the U.S. Census Bureau's Business Dynamics Statistics. Employment shares in each period are based on the average of employment in period $t - 1$ and t (the denominator of the Davis, Haltiwanger, and Schuh (1996) growth rate).

the United States stacks up poorly: Relative to Organisation for Economic Co-operation and Development (OECD) countries, the United States ranks third from the bottom in terms of new business formation as of 2013.⁸

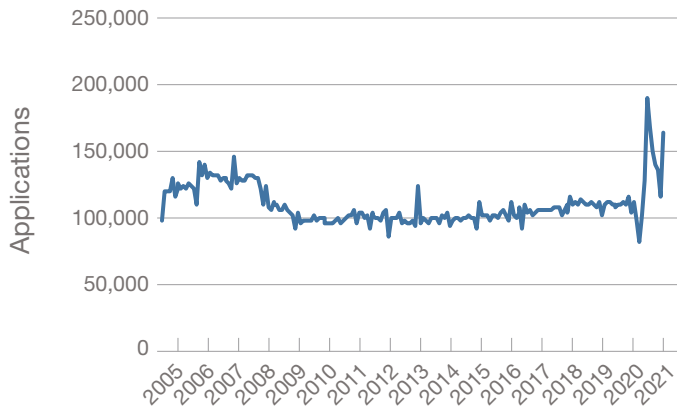
Recent Trends Reflect Challenges and Opportunities

There are many reasons for this decline; scholars have pointed to a variety of factors, including increasing market concentration,⁹ changes in population growth¹⁰ and aging,¹¹ and access to financing and education.¹² Regardless of the reasons, it is clear that the trend is at odds with the quintessential view of America as an entrepreneurial leader.

The pandemic has tested the capacity of new and existing small businesses in the United States. Amid the coronavirus disease 2019 (COVID-19) pandemic and associated stimulus legislation (e.g., P.L. 116-136, 2020, the Coronavirus Aid, Relief, and Economic Security [CARES] Act), the U.S. economy is seeing a surge in new business creation (alongside substantial losses and uncertainty for existing small businesses).¹³ The number of *high-propensity* business applications—those most likely to turn into a business with payroll—were around 190,000 in the third quarter of 2020, the highest level of this type of application since these data began to be tracked in 2004; January 2021 data similarly reflected elevated levels of these high-propensity business applications (Figure 2).¹⁴

What remains to be seen is how these trends will evolve, as well as how these applications translate into successful business formation. If some entrepreneurs are starting businesses primarily out of economic necessity, as some data suggest,¹⁵ that may not bode well for their longer-term prospects.¹⁶ Moreover, if those who are starting new businesses do not have what they need to succeed, they may help perpetuate the existing pattern in the United States of a decline in the number of new high-growth firms (those that grow rapidly and significantly contribute to job

FIGURE 2
High-Propensity Business Applications in the United States



SOURCE: U.S. Census Bureau Business Formation Statistics. Data are seasonally adjusted.

creation).¹⁷ The pandemic has added another layer of complexity because the resulting economic downturn in spring 2020 forced many small businesses to close, while those that have survived the pandemic's toll are still struggling with reduced demand, uncertainty, and pessimism about the future.¹⁸

A Critical Moment for U.S. Entrepreneurial Leadership

The United States is at a critical moment in terms of its economic future, characterized by massive disruption to existing businesses and creation of new businesses. To foster a supportive environment for young firms, we need

to know what works. This involves a deeper examination of macroeconomic conditions in the United States (e.g., population growth and aging and how these affect firm dynamics¹⁹), microeconomic policies in the United States (e.g., optimal taxation, health care, and regulatory conditions²⁰ and increased support for would-be entrepreneurs in the form of financing, advice, education, and peer exposure²¹), and global factors that correlate with entrepreneurial outcomes (e.g., changes in market concentration and economic development²²).

It is also important to look at the characteristics of new business owners themselves. In addition to the demographic dimensions,²³ researchers have begun to unpack the roles of other characteristics, such as personality traits,²⁴ social networks,²⁵ rural versus urban contexts,²⁶ and immigrant status.²⁷ Doing so can allow researchers to identify the underlying mechanisms for successful new businesses, particularly those that might be cultivated or replicated more broadly, as well as ways to mitigate barriers to success for new businesses, particularly for certain demographic groups.

Current economic challenges dictate a deeper examination of the ideas that many in the United States hold about its entrepreneurial exceptionalism. This examination must be grounded in new research and policies to create conditions that can better support new businesses, such as a deeper exploration of the underlying determinants of entrepreneurial success and scaling up the most-promising programs and practices. Such efforts would increase economic growth and help expand economic opportunity for all workers.²⁸

Notes

¹ Haltiwanger et al., 2017; Haltiwanger, Jarmin, and Miranda, 2013; Decker et al., 2014.

² Foster and Norman, 2016; Acemoglu et al., 2018; Alon et al., 2018.

³ Wessel, 2018; Haltiwanger et al., 2018; Shambaugh, Nunn, and Liu, 2018.

⁴ Yellen, 2014.

⁵ When considering entrepreneurial activity, there are two dimensions that are often considered relevant: firm size (e.g., small businesses) and firm age (e.g., young businesses). This discussion follows Decker et al. (2014), which provides an in-depth discussion of why firm age is more relevant than firm size for job creation. Though outside the scope of this paper, recent evidence from Guzman and Stern (2020) introduces additional measures of entrepreneurial quality.

⁶ Decker et al., 2014; Shambaugh et al., 2018, Figure 10A.

⁷ Shambaugh et al., 2018, Figure 9.

⁸ OECD, 2016, Figure 4.1.

⁹ Cunningham, Ederer, and Ma, 2021; Goolsbee, 2020.

¹⁰ Hopenhayn, Neira, and Singhania, 2018; Karahan, Pugsley, and Şahin, 2019.

¹¹ Liang, Wang, and Lazear, 2018.

¹² Priyamvada, 2019; Herkenhoff, Phillips, and Cohen-Cole, 2016; Mills and Dang, 2020; Biasi, Deming, and Moser, 2020.

¹³ Fairlie, 2020a; Fairlie, 2020b; Humphries, Neilson, and Ulyssea, 2020.

¹⁴ Hannon, 2020.

¹⁵ “The Number of New Businesses in America is Booming,” 2020.

¹⁶ See Fairlie and Fossen, 2019, for a discussion of “opportunity” versus “necessity” entrepreneurs.

¹⁷ Sterk, Sedláček, and Pugsley, 2021; Decker et al., 2016; Fairlie and Desai, 2020.

¹⁸ Fairlie, 2020a; Fairlie, 2020b; Humphries, Neilson, and Ulyssea, 2020.

¹⁹ Hopenhayn, Neira, and Singhania, 2018; Karahan, Pugsley, and Şahin, 2019; Liang, Wang, and Lazear, 2018.

²⁰ Ardagna and Lusardi, 2010.

²¹ Priyamvada, 2019; Herkenhoff, Phillips, and Cohen-Cole, 2016; Mills and Dang, 2020; Biasi, Deming, and Moser, 2020; Lerner and Malmendier, 2013; Gottlieb, Townsend, and Xu, 2019.

²² Cunningham, Ederer, and Ma, 2021; Goolsbee, 2020; Naudé, 2019.

²³ Fairlie and Desai, 2020; Liang, Wang, and Lazear, 2018; Jarmin and Krizan, 2010; Shambaugh et al., 2018, Figure 12.

²⁴ Kerr, Kerr, and Dalton, 2019.

²⁵ Kerr and Mandorff, 2021.

²⁶ Deller and Conroy, 2017.

²⁷ Azoulay et al., 2020.

²⁸ Yellen, 2014.

References

- Acemoglu, Daron, Ufuk Akcigit, Harun Alp, Nicholas Bloom, and William Kerr, "Innovation, Reallocation, and Growth," *American Economic Review*, Vol. 108, No. 11, 2018, pp. 3450–3491. As of January 24, 2021:
<https://www.aeaweb.org/articles?id=10.1257/aer.20130470>
- Alon, Titan, David Berger, Robert Dent, and Benjamin Pugsley, "Older and Slower: The Startup Deficit's Lasting Effects on Aggregate Productivity Growth," *Journal of Monetary Economics*, Vol. 93, 2018, pp. 68–85. As of January 24, 2021:
<https://www.sciencedirect.com/science/article/pii/S0304393217301113>
- Ardagna, Silvia, and Annamaria Lusardi, "Heterogeneity in the Effect of Regulation on Entrepreneurship and Entry Size," *Journal of the European Economic Association*, Vol. 8, No. 2/3, April–May 2010, pp. 594–605. As of March 3, 2021:
<https://academic.oup.com/jeea/article-pdf/8/2-3/594/10313898/jeea0594.pdf>
- Azoulay, Pierre, Benjamin Jones, J. Daniel Kim, and Javier Miranda, "Immigration and Entrepreneurship in the United States," Cambridge, Mass.: National Bureau of Economic Research, Working Paper 27778, September 2020. As of January 26, 2021:
<https://www.nber.org/papers/w27778>
- Biasi, Barbara, David J. Deming, and Perta Moser, "Education and Innovation," in Aaron Chatterji, Josh Lerner, Scott Stern, and Michael J. Andrew, eds., *The Role of Innovation and Entrepreneurship in Economic Growth*, Chicago: University of Chicago Press, Conference Proceedings of the National Bureau of Economic Research, January 7–8, 2020. As of January 25, 2021:
<https://www.nber.org/books-and-chapters/role-innovation-and-entrepreneurship-economic-growth/education-and-innovation>
- Cunningham, Colleen, Florian Ederer, and Song Ma, "Killer Acquisitions," *Journal of Political Economics*, February 2021. As of January 24, 2021:
<https://www.journals.uchicago.edu/doi/10.1086/712506>
- Davis, Steven J., John Haltiwanger, and Scott Schuh, "Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts," *Small Business Economics*, Vol. 8, No. 4, August 1996.
- Decker, Ryan, John Haltiwanger, Ron Jarmin, and Javier Miranda, "The Role of Entrepreneurship in US Job Creation and Economic Dynamism," *Journal of Economic Perspectives*, Vol. 28, No. 3, 2014, pp. 3–24. As of January 24, 2021:
<https://www.aeaweb.org/articles?id=10.1257/jep.28.3.3>
- , "Where Has All the Skewness Gone? The Decline in High-Growth (Young) Firms in the U.S.," *European Economic Review*, Vol. 86, July 2016, pp. 4–23. As of January 26, 2021:
<https://www.sciencedirect.com/science/article/pii/S0014292116300125>
- Deller, Steven C., and Tessa Conroy, "Business Survival Rates Across the Urban–Rural Divide," *Community Development*, Vol. 48, No. 1, July 2017, pp. 67–85. As of January 26, 2021:
<https://www.tandfonline.com/doi/full/10.1080/15575330.2016.1246459>
- Fairlie, Robert W., "The Impact of COVID-19 on Small Business Owners: Evidence of Early-Stage Losses from the April 2020 Current Population Survey," Cambridge, Mass.: National Bureau of Economic Research, Working Paper 27309, June 2020a. As of January 24, 2021:
https://www.nber.org/system/files/working_papers/w27309/w27309.pdf
- , "The Impact of COVID-19 on Small Business Owners: Evidence from the First 3 Months After Social-Distancing Restrictions," *Journal of Economics and Management Strategy*, August 2020b. As of February 18, 2021:
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7461311/>
- Fairlie, Robert W., and Sameeksha Desai, *Kauffman Indicators of Entrepreneurship: 2019 Early-Stage Entrepreneurship in the United States*, Kansas City, Mo.: Ewing Marion Kauffman Foundation, June 2020. As of January 26, 2021:
<https://indicators.kauffman.org/>
- Fairlie, Robert W., and Frank M. Fossen, "Opportunity Versus Necessity Entrepreneurship: Two Components of Business Creation," Cambridge, Mass.: National Bureau of Economic Research, Working Paper 26377, October 2019. As of January 26, 2021:
https://www.nber.org/system/files/working_papers/w26377/w26377.pdf
- Foster, Lucia, and Patrice Norman, *The Annual Survey of Entrepreneurs: An Introduction*, Washington, D.C.: U.S. Census Bureau, Center for Economic Studies, CES 15-40R, May 2016. As of January 24, 2021:
<https://www2.census.gov/ces/wp/2015/CES-WP-15-40R.pdf>
- Goolsbee, Austan, "Big Companies Are Starting to Swallow the World," *New York Times*, September 30, 2020. As of March 3, 2021:
<https://www.nytimes.com/2020/09/30/business/big-companies-are-starting-to-swallow-the-world.html>
- Gottlieb, Joshua D., Richard R. Townsend, and Ting Xu, "Does Career Risk Deter Potential Entrepreneurs?" Cambridge, Mass.: National Bureau of Economic Research, Working Paper 22446, October 2019. As of January 26, 2021:
<https://users.nber.org/~jdgottl/GottliebCareerRisk.pdf>

Guzman, Jorge, and Scott Stern, “The State of American Entrepreneurship: New Estimates of the Quantity and Quality of Entrepreneurship for 32 US States, 1988–2014.” *American Economic Journal: Economic Policy*, Vol. 12, No. 4, November 2020, pp. 212–243. As of January 24, 2021: <https://www.aeaweb.org/articles?id=10.1257/pol.20170498>

Haltiwanger, John C., Henry R. Hyatt, Lisa B. Kahn, and Erika McEntarfer, “Cyclical Job Ladders by Firm Size and Firm Wage,” *American Economic Journal: Macroeconomics*, Vol. 10, No. 2, April 2018, pp. 52–85. As of January 24, 2021: <https://pubs.aeaweb.org/doi/pdf/10.1257/mac.20150245>

Haltiwanger, John, Ron S. Jarmin, Robert Kulick, and Javier Miranda, “High Growth Young Firms: Contribution to Job, Output, and Productivity Growth,” in John Haltiwanger, Erik Hurst, Javier Miranda, and Antoinette Schoar, eds., *Measuring Entrepreneurial Businesses: Current Knowledge and Challenges*, Chicago: University of Chicago Press, September 2017. As of January 24, 2021: <https://www.nber.org/books-and-chapters/measuring-entrepreneurial-businesses-current-knowledge-and-challenges/high-growth-young-firms-contribution-job-output-and-productivity-growth>

Haltiwanger, John, Ron S. Jarmin, and Javier Miranda, “Who Creates Jobs? Small Versus Large Versus Young,” *Review of Economics and Statistics*, Vol. XCV, No. 2, May 2013. As of January 24, 2021: https://www.mitpressjournals.org/doi/pdf/10.1162/REST_a_00288

Hannon, Kerry, “It’s a Terrible Time for Small Businesses. Except When It’s Not.” *New York Times*, December 14, 2020. As of January 27, 2021: <https://www.nytimes.com/2020/12/14/business/smallbusiness/small-business-start-ups-entrepreneurs.html>

Herkenhoff, Kyle, Gordon Phillips, and Ethan Cohen-Cole, “The Impact of Consumer Credit Access on Employment, Earnings and Entrepreneurship,” Cambridge, Mass.: National Bureau of Economic Research, Working Papers 22846, 2016. As of January 24, 2021: <https://www.nber.org/papers/w22846>

Hopenhayn, Hugo, Julian Neira, and Rish Singhania, “Demographic Origins of the Startup Deficit,” Cambridge, Mass.: National Bureau of Economic Research, Working Paper 25382, 2018. As of January 25, 2021: <https://ideas.repec.org/p/nbr/nberwo/25382.html>

Humphries, John Eric, Christopher Neilson, and Gabriel Ulyssea, “The Evolving Impacts of COVID-19 on Small Businesses Since the CARES Act,” New Haven, Conn.: Cowles Foundation for Research in Economics, Yale University, Cowles Foundation Discussion Paper No. 2230, April 2020. As of January 25, 2021: <https://cowles.yale.edu/sites/default/files/files/pub/d22/d2230.pdf>

Jarmin, Ron S., and C. J. Krizan, *Past Experience and Future Success: New Evidence on Owner Characteristics and Firm Performance*, Washington, D.C.: U.S. Census Bureau, Center for Economic Studies, CES-WP-10-24, September 1, 2010. As of January 26, 2021: <https://www.census.gov/library/working-papers/2010/adrm/ces-wp-10-24.html>

Karahan, Fatih, Benjamin Pugsley, and Ayşegül Şahin, “From Population Growth to Firm Demographics: Implications for Concentration, Entrepreneurship and the Labor Share,” Cambridge, Mass.: National Bureau of Economic Research, Working Papers 25874, May 2019. As of January 25, 2021: <https://www.nber.org/papers/w25874>

Kerr, Sari Pekkala, William R. Kerr, and Margaret Dalton, “Risk Attitudes and Personality Traits of Entrepreneurs and Venture Team Members,” *Proceedings of the National Academy of Sciences*, Vol. 116, No. 36, September 2019, pp. 17712–17716. As of September 26, 2021: <https://www.pnas.org/content/116/36/17712>

Kerr, William R., and Martin Mandorff, “Social Networks, Ethnicity, and Entrepreneurship,” *Journal of Human Resources*, forthcoming in print, published online January 11, 2021. As of March 3, 2021: <http://jhr.uwpress.org/content/early/2021/01/04/jhr.58.3.0719-10306R2.abstract>

Liang, James, Hui Wang, and Edward P. Lazear, “Demographics and Entrepreneurship,” *Journal of Political Economy*, Vol. 126, No. S1, 2018, pp. 140–196. As of January 25, 2021: <https://www.journals.uchicago.edu/doi/full/10.1086/698750>

Lerner, Josh, and Ulrike Malmendier, “With a Little Help from My (Random) Friends: Success and Failure in Post-Business School Entrepreneurship,” *Review of Financial Studies*, Vol. 26, No. 10, October 2013, pp. 2411–2452. As of January 26, 2021: <https://doi.org/10.1093/rfs/hht024>

Mills, Karen G., and Annie Dang, “Creating ‘Smart’ Policy to Promote Entrepreneurship and Innovation,” in Aaron Chatterji, Josh Lerner, Scott Stern, and Michael J. Andrew, eds. *The Role of Innovation and Entrepreneurship in Economic Growth*, Chicago: University of Chicago Press, Conference Proceedings of the National Bureau of Economic Research, January 7–8, 2020. As of January 25, 2021: <https://www.nber.org/books-and-chapters/role-innovation-and-entrepreneurship-economic-growth/creating-smart-policy-promote-entrepreneurship-and-innovation>

Naudé, Wim, “The Decline in Entrepreneurship in the West: Is Complexity Ossifying the Economy?” Bonn, Germany: IZA (Institute for the Study of Labor), Discussion Paper No. 12602, September 23, 2019. As of January 26, 2021: <https://ssrn.com/abstract=3457646>

“The Number of New Businesses in America Is Booming,” *The Economist*, October 10, 2020. As of January 26, 2021: <https://www.economist.com/united-states/2020/10/10/the-number-of-new-businesses-in-america-is-booming>

OECD—See Organisation for Economic Co-operation and Development.

Organisation for Economic Co-operation and Development, *Entrepreneurship at a Glance 2016*, Paris: OECD Publishing, 2016. As of January 24, 2021: https://doi.org/10.1787/entrepreneur_aag-2016-en

Priyamvada, Mathur, “21 Charts Showing Current Trends in US Venture Capital,” *Pitchbook*, July 24, 2019. As of January 25, 2021: <https://pitchbook.com/news/articles/21-charts-showing-current-trends-in-us-venture-capital>

Public Law 116-136, Coronavirus Aid, Relief, and Economic Security (CARES) Act, March 27, 2020.

Shambaugh, Jay, Ryan Nunn, Audrey Breitweiser, and Patrick Liu, *The State of Competition and Dynamism: Facts About Concentration, Start-Ups, and Related Policies*, Washington, D.C.: Brookings Institution Hamilton Project, June 2018. As of January 24, 2021: https://www.hamiltonproject.org/assets/files/CompetitionFacts_20180611.pdf

Shambaugh, Jay, Ryan Nunn, and Patrick Liu, *How Declining Dynamism Affects Wages*, Washington, D.C.: Brookings Institution Hamilton Project, February 2018. As of January 24, 2021: https://www.brookings.edu/wp-content/uploads/2018/02/es_2272018_how_declining_dynamism_affects_wages.pdf

Sterk, Vincent, Petr Sedláček, and Benjamin Pugsley, “The Nature of Firm Growth,” *American Economic Review*, Vol. 111, No. 2, 2021, pp. 547–579. As of February 26, 2021: <https://pubs.aeaweb.org/doi/pdfplus/10.1257/aer.20190748>

U.S. Census Bureau, “Business Dynamics Statistics,” datasets, Washington, D.C., 1982–2010.

Wessel, David, “Is Lack of Competition Strangling the U.S. Economy?” *Harvard Business Review*, March–April 2018. As of January 24, 2021: <https://hbr.org/2018/03/is-lack-of-competition-strangling-the-u-s-economy>

Yellen, Janet, “Perspectives on Inequality and Opportunity from the Survey of Consumer Finances,” remarks at the Conference on Economic Opportunity and Inequality, Boston, Mass., October 17, 2014. As of January 24, 2021: <https://www.federalreserve.gov/newsevents/speech/yellen20141017a.pdf>

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About This Perspective

This Perspective describes recent trends in entrepreneurial activity in the United States, such as the formation of new businesses and their share of job creation. The trends show that entrepreneurial activity is declining and that the United States lags most other Organisation for Economic Co-operation and Development countries. The authors highlight the challenges and opportunities that new and existing small businesses face as a result of the coronavirus disease 2019 pandemic, and they frame further avenues for research that would be valuable as U.S. policymakers seek to support these firms in the wake of recent massive disruption to the economy.

This Perspective is one in a multipart series that identifies problems related to the middle class, defines key terms, and determines research needs to support effective pathways to the middle class. It will be of interest to policymakers, practitioners, and the general public who wish to be able to benchmark growth and decline in the U.S. middle class.

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