



Entrepreneurial Insights

Owning and Employing as a
Pathway to Wealth and Wellbeing

JPMORGAN CHASE & CO.

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Table of Contents

2 Executive Summary

Key findings
Why it matters

8 Background

10 Methodology

Research design and survey execution
Defining ownership status

12 Findings

Business ownership as a pathway to wealth and wellbeing
Demographics and disparities of U.S. business ownership
Personality traits of business owners and aspiring owners
Management practices of successful business owners
Barriers to accessing capital

35 Conclusion

38 Appendix

Weighting
Personality traits
Management practices and systems

52 Endnotes



Executive Summary

To better understand the **links between entrepreneurship and wealth creation**, as well as the **demographic gaps and challenges to starting and running a business**, Gallup launched a new survey of employees and business owners to analyze the characteristics and circumstances that predict wellbeing and wealth among working adults in the United States, with support from JPMorgan Chase and Ewing Marion Kauffman Foundation.

Key findings

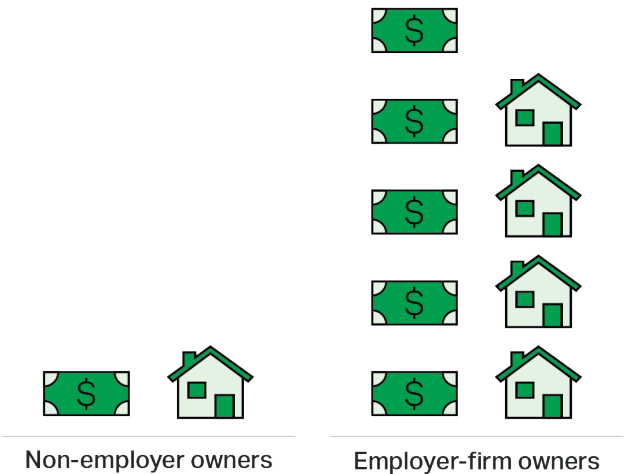
Owning an employer-firm is the work-related pathway most associated with wellbeing and wealth.

Owners of employer-firms experience higher wellbeing along several dimensions than any other type of employee or business owner, including job quality and overall life evaluation.

The percentage of owner-employers thriving in wellbeing is 67%, compared to 52% of non-employer owners, 51% of employees and 48% of self-employed workers.

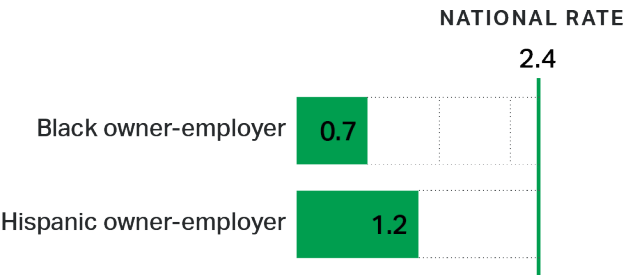


Owner-employers are also richer, as measured by personal income, household income and wealth, than employees and other types of owners. The median income of employer-firm owners is nearly five times higher than non-employer owners (\$110K vs. \$24K), and the median value of their assets is four times higher (\$550K vs. \$135K).



Black and Hispanic workers are heavily under-represented among U.S. employer-firm owners but not other forms of ownership or entrepreneurship.

Among working adults, just 0.7% of Black adults and 1.2% of Hispanic adults are owner-employers, compared with 2.4% of all working U.S. adults. To equal the national rate, the Black employer rate would need to be nearly four times higher, and the Hispanic employer rate would need to double.



Men are twice as likely as women to be owner-employers.

Working adults whose parents owned a business while they were growing up are

1.9 times more likely to own an employer-firm than those whose parents did not.

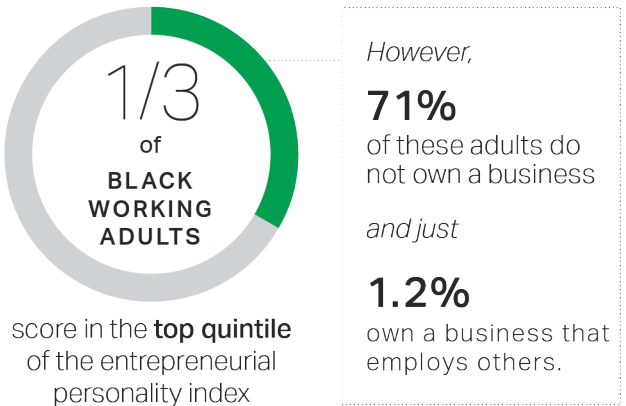
Non-employer ownership rates and self-employment rates are largely equitable by race/ethnicity and sex.

Despite their under-representation among employer-owners, Black adults score relatively high on an index of entrepreneurial personality traits that is highly predictive of interest in becoming an entrepreneur, actions taken to become one and performance as an entrepreneur.

The **ENTREPRENEURIAL PERSONALITY INDEX** captures the extent to which workers demonstrate:

- 1 **Non-cognitive skills** such as conscientiousness, emotional stability and determination
- 2 **An internal locus of control**, meaning they direct and influence their lives
- 3 **Entrepreneurial and operational self-efficacy**, meaning confidence they could perform the activities associated with starting and running a business
- 4 **A desire for autonomous, creative work** that matches their natural talents

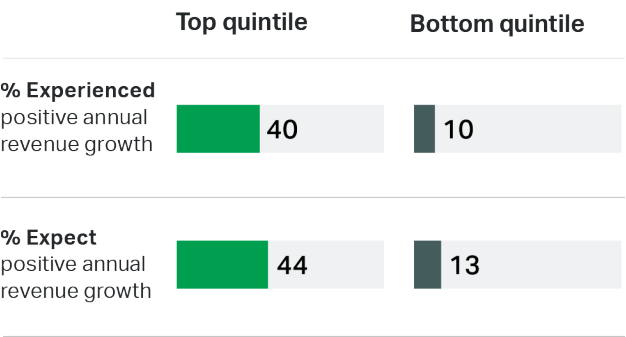
Entrepreneurial traits tend to be higher among Black, Hispanic and multiracial workers, the highly educated, and older workers. They do not differ significantly by sex.



Business owners who score higher on a management practices index oversee better-performing businesses, as measured by recent revenue growth, profits and profit margins.

Among firms led by owners who score in the top quintile of management practices, 40% experienced positive annual revenue growth from August 2022 to August 2023, compared to just 10% of firms led by owners scoring in the bottom quintile.

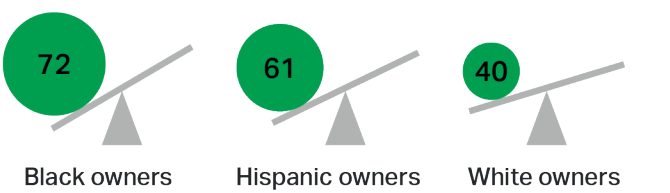
Nearly half of top-scoring owners (44%) expect positive annual revenue growth for the current year versus 13% of those scoring in the bottom quintile. Among the self-employed, better management practices are also associated with stronger financial performance.



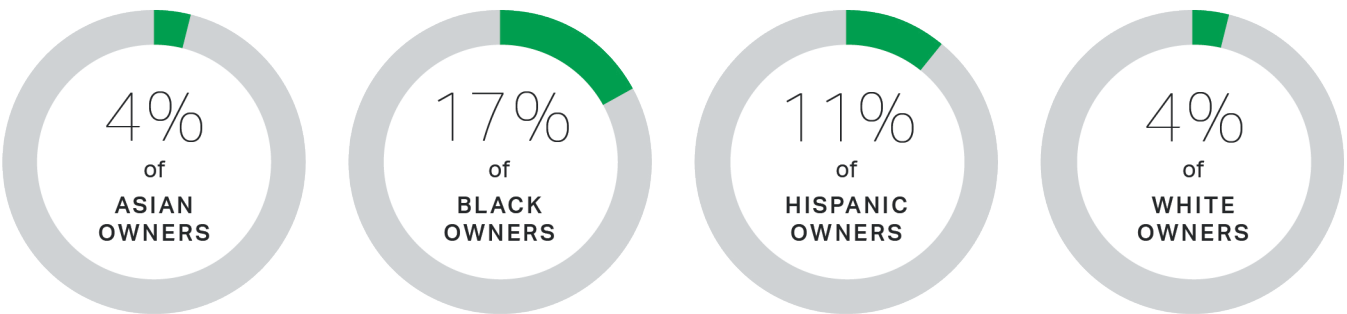
Black and White owners have nearly the same management scores and score somewhat higher than Asian and Hispanic owners; men and women do not differ significantly. Beyond high school, educational attainment is unrelated to management quality, but older owners significantly outperform younger owners.

Black and Hispanic business owners report greater difficulty and higher rates of unfair treatment in accessing capital and customers than White or Asian business owners.

A majority of Black (72%) and Hispanic (61%) business owners who sought financing within the past 12 months report difficulty in acquiring it. White owners (40%) were much less likely to say they had experienced difficulty.



Black and Hispanic owners are also **THREE TO FOUR TIMES MORE LIKELY** to report unfair treatment when seeking financing and acquiring customers or clients than White and Asian owners.



say they were **treated unfairly** when attempting to acquire financing

Why it matters

Entrepreneurship is widely thought of as a pathway to wealth, and this report — based on data from nearly 10,000 U.S. adults — confirms that belief. Yet, the path is narrow. Being a business owner with no employees is not associated with significantly higher income, wealth, job satisfaction or life satisfaction; rather, the **entrepreneurial pathway to wealth and wellbeing often requires employing others**. However, just 9% of business owners currently do so, and among all working adults, just 2% are owner-employers.

In addition to uncovering pathways to wealth, this report identifies the entrepreneurial personality traits most associated with business interests and performance. Across the United States, approximately 29 million working adults possess the personality traits and characteristics associated with the high levels of motivation and competence needed for starting and running a business. Yet less than half of these Americans (37%) own a business, and only a fraction of these (6%) employ others. The discrepancy is even larger among female, Hispanic and Black business owners. Most notably, Black adults are over-represented among those with the personality traits associated with business success but heavily under-represented among actual owners — especially among owner-employers.

The current survey cannot pinpoint the reasons for this representation gap among Black Americans as it did not ask why respondents had not started a business. One contributing factor — given the relationship found with parental business ownership — may be that the parents and grandparents of Black adults had fewer entrepreneurial opportunities. The survey results reveal that owner-employers are more likely to be raised by parents who themselves were business owners. Yet, Black adults are less likely to report that their family owned a business. Likewise, existing research has established that there is a large wealth gap between Black adults and other groups, limiting opportunities to launch a business for those with little wealth.¹

Running a business that employs others places additional risks and burdens on the owner, such as recruitment, hiring, retention, payroll taxes for Social Security and Medicare, employee healthcare and other benefits, and legal risks if conflicts arise.² These additional burdens and the financial capital needed to navigate them may explain why there are substantial gaps in owner-employer rates across races/ethnicities and sexes. Additionally, while management practices are highly predictive of business performance, the quality of these practices does not vary according to the race/ethnicity or sex of the owner, making it unlikely that management strategies explain why certain groups of owners are under-represented among employer-firm owners.

This survey did not collect data on why people who are owners do not employ others, but it did ask about their experiences seeking customers and the capital needed for growth. Black, Hispanic and female owners are more likely than other owners to report difficulty acquiring financing and are also more likely to report unfair treatment when acquiring financing or customers within the past five years. Other research finds that Black and Hispanic owners are much more pessimistic about their ability to raise growth capital, even adjusting for their credit score and net worth.³ While most owners in this survey perceive fair treatment, concerns about discriminatory treatment could be an obstacle or deterrent to scaling up, even for those not directly affected.

Whatever the reasons more Americans are not employers, many employees or business owners may be missing opportunities to generate higher wealth for themselves, their families and their communities. Moreover, by remaining employees or non-employer owners, they may forgo substantial benefits in wellbeing, job satisfaction and engagement. Future research will aim to shed light on possible reasons why the employer pathway is not taken more often and which of those reasons may be amendable to policy changes that reduce risks or regulations associated with employing others.



Background

Young businesses start small and are the engine of economic growth. According to Census Bureau data, new businesses have created between 2.1 million and 3.4 million jobs each year since 1978⁴ — far surpassing net job growth in the economy as a whole. Startups create jobs at roughly double the rate of all other firms.⁵ Business ownership, meanwhile, plays a key role in income and wealth generation: 69% of individuals in the top 1% earn money from pass-through businesses, such as a partnership or S-corporation.⁶ Among the wealthiest 1% and top 0.1%, pass-through business assets account for the largest source of asset value.⁷ Thus, entrepreneurship powers both national and individual wealth.

Yet, there are several thorny problems when it comes to U.S. startups, including viability, equity and downward trends.

VIABILITY

Startups are fragile: 17% of employer-firms close within one year and half within five years.⁸ Even getting to the stage of employing other people is a hurdle most businesses never get over. In 2021, 5.4 million business applications were filed with the Internal Revenue Service;⁹ of those, only 476,000 (9%) employed workers when they launched.¹⁰

EQUITY

There are large differences in business ownership rates by race/ethnicity and sex, with much higher ownership rates among non-Hispanic White adults and men than Black and Hispanic adults and women.¹¹ Research by JPMorgan finds that firms owned by Black and Hispanic adults and those from other under-represented groups are more likely to want help with financial planning, tax preparation, and organizational and talent development.¹² Additionally, the Small Business Administration reports that Black and Hispanic owners are more likely than others to have unmet financing needs, including receiving less funding from banks and other organizations than requested.¹³ Finally, the small number of employer firms and pass-through businesses means that most workers do not generate income from these assets and, thus, miss out on wealth generation. Lack of personal wealth combined with pessimism about the ability to raise capital also deters a higher share of Black and Hispanic owners from applying for credit — a critical step for business growth.¹⁴

DOWNWARD TRENDS

The number of startups has been declining across all sectors of the economy since the 1970s in absolute numbers and, even more starkly, as a share of the workforce.¹⁵ The result has been a less dynamic U.S. economy with a shrinking share of workers at young firms. There is no clear explanation for this trend. As discussed above, the economic incentives to be an owner-employer remain strong, yet the challenges can be significant.

Given these issues, Gallup partnered with the JPMorgan Chase Foundation and the Kauffman Foundation to address several outstanding research questions:

- 1 What characteristics of ownership, if any, seem to put entrepreneurs on a pathway to wealth? In other words, under what conditions is it better to be an entrepreneur than an employee? How might this vary by race/ethnicity?
- 2 What distinct barriers, if any, do under-represented minority adults face in becoming entrepreneurs and reaching their business goals?
- 3 Considering the long-term decline in startups, what characteristics of owners and their management practices predict a) interest in becoming an entrepreneur, b) being an owner, and c) succeeding financially as an owner? How are these characteristics distributed among non-owners and adults from under-represented groups?



Methodology

Research design and survey execution

Gallup and its partners wanted to be able to report summary data on wellbeing, wealth, ownership rates and other variables by race/ethnicity and sex for a representative sample of working U.S. adults as well as differentiate business owners from non-owners. Given the small share of adults who own employer-businesses — particularly Black or Hispanic owner-employers — Gallup could not rely on a random sample of U.S. adults to meet the research goals. Therefore, this research utilized two sources.

The primary source was the Gallup Panel™. Gallup emailed 19,890 adults who had previously been randomly selected to complete a Gallup survey and joined the Panel by offering Gallup their email address and contact permission. The secondary source was obtained from the U.S. Small Business Administration, which published the addresses of all businesses that received loans (that were mostly converted to grants) from the Paycheck Protection Program (PPP), with funding from two large Congressional appropriations in 2020 and 2021. After data cleaning, Gallup drew a random sample of 20,174 businesses and sent postcards by mail, inviting them to participate in a web survey. An incentive was offered for survey completion. Combined, these two sources resulted in 9,852 completed surveys with enough demographic information to create a survey weight, a response rate of 24.6%.*

Gallup over-sampled Black and Hispanic adults to ensure it could report summary data by subgroups. Gallup also over-sampled adults living in Kansas, Missouri, Nebraska or Iowa, an area the Kauffman Foundation calls “the heartland.”

The final sample size of 9,852 working U.S. adults included 3,117 “owners,” defined as anyone who received at least some income in the prior month from a business they own. Among these owners, 976 reported that they employed at least one employee other than themselves. Surveys were completed between Sept. 21 and Oct. 30, 2023.

This final pool of respondents was then weighted to be representative of working employer-business owners and non-owners of employer businesses among the U.S. employed adult population. This was done using the 2022 Annual Business Survey (ABS), which is only based on owners of employer-businesses operating during the year 2021, and the 2021 American Community Survey (ACS).¹⁶ Using both datasets, the number of U.S. adults was calculated based on owner-employer status, educational attainment, age group, race/ethnicity, sex and residence in “the heartland.” The number of owners with these characteristics was calculated using the ABS, and non-owners were estimated by subtracting the number of owners from the total population (from the ACS). The final weight makes the respondent representative of the U.S. working population based on those characteristics. A comparison of the sector composition of owners in this survey and U.S. data sources is provided in [Appendix Table 6](#).

* The response rate was 46.7% using the Gallup Panel and 2.8% using the PPP database. 570 completions came from the PPP database. The response rate adjusts for returned envelopes, bad addresses and duplicates.

Owners’ rates by demographic group using the ABS-ACS combined database and the Gallup survey are similar (compare [Table 4](#) to [Appendix Table 1](#)) but differ slightly because of differences in how race and ethnicity were classified in the two databases and the requirement imposed by the Gallup research team that owners spend most of their time working on their business (to avoid including employees with side gigs, who may own only a small fraction of the business).

Defining ownership status

To answer the research questions listed above, we considered five categories of workers:

- 1 **Employee only.** These adults are solely employees, the largest and most conventional category of workers. They comprise just under two-thirds of all workers.
- 2 **Mostly employee with other arrangements.** These employees do not file taxes as independent contractors or sole proprietors but do some work for their own self-employed businesses.
- 3 **Self-employed.** These individuals are mostly or entirely self-employed. Self-employment includes independent contractors, independent consultants and freelance workers who work for themselves and provide services directly to customers on a per-contract basis.
- 4 **Non-employer owner.** These adults do not indicate that they are self-employed and mostly work as a business owner or landlord, but they employ no one. This group comprises 6.9% of all workers.
- 5 **Owner-employer.** Employers who primarily work as a business owner or landlord and employ at least one other person. After applying weighting, they are the smallest group, representing just 2.4% of all workers.

TABLE 1
Defining Work Arrangements

Category	Definition	% Of workers
Employee only	Work as employees with no other arrangements	64.2
Mostly employee with other arrangements	Mostly works as an employee but has other ownership arrangements; does not file taxes as a sole proprietor or independent contractor	15.3
Self-employed	Mostly self-employed, entirely self-employed or file taxes as a sole proprietor or independent contractor and does not mostly work as a landlord or business owner	11.3
Non-employer owner	Mostly works as a business owner or landlord and employs no one	6.9
Owner-employer	Mostly works as a business owner or landlord and employs at least one person	2.4



Findings

Business ownership as a pathway to wealth and wellbeing

Owning an employer-firm is the work-related pathway most associated with greater wellbeing and wealth.

*Owners of employer-firms experience higher subjective wellbeing along several dimensions than any other type of employee or owner. With the exception of experiences of financial hardship, the gap favoring owner-employers in all outcomes remains statistically significant after adjusting for sex, age and educational attainment.***

** Notably, the positive effect of being an owner-employer on life evaluation (thriving), job evaluation and high levels of engagement remain significant in models that adjust for sex, age, race, ethnicity, educational attainment and the log of wealth, suggesting that the benefits of ownership are not merely financial.

For this research, Gallup measured subjective wellbeing along five dimensions:

- 1 Engagement at work
- 2 Evaluation of employment situation
- 3 General life evaluation
- 4 Financial wellbeing
- 5 Whether basic needs are being met

First, Gallup measured a subset of items related to what it defines as **employee engagement**.¹⁷ Gallup's full engagement scale is associated with higher job retention, productivity, job satisfaction and performance. The items used here are predictive of those outcomes, though to a lesser extent. To create a proxy measure for engagement, Gallup asked five items on a 1-to-5 Likert rating scale, with "5" indicating strong agreement and "1" indicating strong disagreement with each statement. The average across all five items was calculated, and respondents were considered to have high levels of engagement if they averaged a "4" or higher on these items:

- At work, I have the opportunity to do what I do best every day.
- At work, my opinions seem to count.
- At work, I am treated with respect.
- I have opportunities to be creative or innovative at my job.
- I get along well with people I work with at my job.

Gallup also asked respondents to evaluate their **work situation** using a single-item measure where "0" is "the worst possible work situation for you" and "10" is the best. Similarly, Gallup asked its two-item measure of **life evaluation**, in which respondents were asked to evaluate their life today and in five years on the same 0-to-10 "ladder" scale. Gallup routinely fields these items globally on its World Poll, as well as in domestic surveys.¹⁸ "Thriving" is defined as scoring a "7" or higher now and an "8" or higher in anticipated wellbeing.

To measure **financial wellbeing**, Gallup asked respondents to rate their degree of financial comfort, as in which statement best describes their feelings about their household income:

- Living comfortably on present income
- Getting by on present income
- Finding it difficult on present income
- Finding it very difficult on present income

Respondents were also asked if there had been times in the past 12 months when they did not have enough money to pay for **food, shelter or healthcare needed** by their family. A reply of "yes" to any of those three needs was coded as indicating financial hardship.

Owner-employers score high on each of the five outcomes.

Three in four owners of employer-firms (75%) indicate high levels of engagement with work, compared to 68% of owners of non-employer firms and 51% of workers who are only employees. There is also a large gap in job evaluation: 78% of owner-employers provide a high evaluation score, compared to 58% of non-employer owners and 55% of workers who are employees.

Regarding financial wellbeing, 58% of owner-employers say they live comfortably on their present income, compared to 36% of non-employer owners and employees. Likewise, only 15% of owner-employers indicate having some level of financial hardship in the past year, compared to 26% of non-employer owners and 27% of employees.

Given these outcomes, it is not surprising that employer-firm owners also rate their overall lives much higher than other workers. The percentage of owner-employers thriving in their life evaluation is 67%, compared to 52% of non-employer owners, 51% of employees and 48% of self-employed workers.

TABLE 2
Ratings on Five Dimensions of Subjective Wellbeing by Work Arrangement

	% High work engagement score	% High evaluation of work	% Living comfortably on present income	% Experienced hardship in paying for necessities	% Thriving
Owner-employer	75.4	78.1	58.4	15.2	66.7
Mostly employee with other arrangements	57.1	58.4	33.9	28.2	54.1
Non-employer owner	68.1	57.6	36.0	25.6	52.1
Employee only	50.9	55.5	36.0	27.3	50.7
Self-employed	58.3	46.6	27.8	40.3	48.1

Owner-employers are also richer, as measured by personal income, household income and wealth, than employees and other types of owners. The median income of employer-firm owners is nearly five times higher than non-employer owners (\$110K vs. \$24K), and the median value of their assets is four times higher (\$550K vs. \$135K). Household income is also highest among owner-employers.

TABLE 3
Median Income and Wealth by Work Arrangement

	Personal income	Household income	Wealth
Owner-employer	\$110,000	\$175,000	\$550,000
Mostly employee with other arrangements	\$65,000	\$120,000	\$145,000
Non-employer owner	\$24,000	\$100,000	\$135,000
Employee only	\$62,000	\$110,000	\$130,000
Self-employed	\$34,000	\$95,000	\$46,000





Demographics and disparities of U.S. business ownership

Black and Hispanic workers are heavily under-represented among U.S. employer-firm owners but not other forms of ownership or entrepreneurship.

*Just 0.7% of Black adults and 1.2% of Hispanic adults are owner-employers. To equal the national rate of 2.4%, the Black employer rate would need to be almost four times higher, and the Hispanic employer rate would need to double. Non-Hispanic White workers (3.1%) and Asian workers (2.7%) have the highest owner-employer rates.*** These ownership rates are similar to estimates produced using the Census Bureau's ABS and ACS (see [Appendix Table 1](#)) despite slight differences in definitions.*

*** Multiracial and single-race American Indians, Alaskan Natives and Pacific Islanders are pooled because of small sample sizes.

RACE/ETHNICITY

Importantly, Black and Hispanic ownership gaps are much smaller or non-existent when it comes to non-employer firms or self-employment. The non-employer ownership rate among Black workers would only need to increase by a multiple of 1.5 to equal the national rate, and Black self-employment rates are on par with the national average. Hispanic rates of non-employer ownership and self-employment are slightly above the national average, indicating that Hispanic workers are over-represented among owners of non-employer firms and the self-employed.

SEX

Male employer rates are double female employer rates (3.2% vs. 1.5%) but nearly the same for non-employer firms (7.0% vs. 6.7%) and self-employment (11.4% vs. 11.0%).

These results imply that interest in entrepreneurship and pathways to becoming any kind of entrepreneur, including self-employment and non-employer ownership, are largely equitable by race/ethnicity and sex. Yet, the results also suggest that becoming an owner-employer requires something more — such as capital — that is not equally available across groups. This is consistent with prior work showing Black owners face greater difficulty raising capital because of lower levels of personal wealth, and even creditworthy Black owners often forgo applying for capital due to low expectations for approval.¹⁹

IMMIGRANT STATUS

Foreign-born workers are slightly more likely than U.S.-born workers to become entrepreneurs by all three definitions, but the differences are small.

AGE

Ownership rates differ widely by age. Employer rates rise sharply with age, from a low of just 0.2% for workers under 25 to 8.2% for those 65 and older. One reason for the sharp jump between those aged 55 to 64 and those 65 and older is that owners may be less likely to retire than employees.

EDUCATIONAL ATTAINMENT

Employer-ownership rates tend to be higher among groups with higher education rates, but only slightly — except for those with a professional degree or doctorate (5.5%). Notably, this group includes lawyers and doctors, who have high rates of employer-firm ownership. Bachelor's degree holders are slightly more likely to be owner-employers than all workers (2.8% vs. 2.4%), and master's degree holders are nearly at the national average (2.5%). Conversely, rates of owning a non-employer firm and self-employment are higher among less educated workers than highly educated workers. Thus, while education offers many advantages in the labor market, except for professional degree holders, education has a more muted association with business ownership.

TABLE 4
Percentage of Workers Who Own Various Types of Businesses by Demographic Group

	% Owner-employers	% Non-employer owners	% Self-employed
ALL WORKING ADULTS			
Total	2.4	6.9	11.3
RACE/ETHNICITY			
Asian or Asian American (including Middle Eastern/West Asian)	2.7	6.0	6.7
Black or African American	0.7	4.6	11.5
Hispanic	1.2	7.3	11.7
Multiracial or other non-Hispanic group	2.1	11.0	14.9
White or European American	3.1	7.1	11.5
SEX			
Female	1.5	6.7	11.0
Male	3.2	7.0	11.4
EDUCATION			
High school education or less	1.6	8.2	12.8
Some college — but no degree or certificate	1.5	9.3	13.3
Completed industry certification or certificate program	2.9	3.9	10.7
Two-year associate degree	2.2	7.0	12.3
Four-year bachelor's degree	2.8	5.1	9.5
Master's degree	2.5	6.2	10.1
Doctorate or professional degree	5.5	6.3	10.1
AGE			
Under 25	0.2	4.5	12.6
25 to 34	0.5	4.0	10.2
35 to 44	1.8	4.5	11.3
45 to 54	2.8	7.6	10.3
55 to 64	3.9	7.9	11.1
65 or over	8.2	22.4	17.1
IMMIGRATION STATUS			
Born in the United States	2.2	6.1	10.4
Foreign-born	2.9	9.7	10.7

Sample is 9,668 working adults living in the United States.

Intergenerational factors

A lack of capital, personal wealth and social networks can be critical barriers to startup funding and business formation. Differences in the intergenerational transmission of wealth and social capital may exacerbate the large race/ethnicity-based gaps in ownership. To explore this, we asked U.S. workers whether their parents owned a business, the degree of financial security they experienced in childhood and the highest level of education attained by either of their parents. Among these, family business ownership is the strongest predictor of respondent ownership. The employer-ownership rate of workers whose family owned a business is well above the rate of those whose family did not (3.5% vs. 1.9%). Rates of non-employer ownership and self-employment are slightly higher among workers whose parents also owned a business.



TABLE 5
Percentage of Workers Who Own Various Types of Businesses by
Parents’ Business Ownership, Education Level and Subjective Income

	% Owner-employers	% Non-employer owners	% Self-employed
FAMILY OWNED A BUSINESS			
No	1.9	5.7	9.6
Yes	3.5	8.4	12.5
HIGHEST LEVEL OF EDUCATION FOR ANY PARENT WHO RAISED YOU			
Less than a high school diploma	1.9	7.7	8.4
High school graduate	2.3	6.5	10.7
Some college — but no degree or certificate	1.8	5.7	12.7
Completed industry certification or certificate program	2.9	6.9	9.1
Two-year associate degree	2.3	7.5	5.8
Four-year bachelor’s degree	2.2	5.5	11.2
Some postgraduate or professional schooling after graduating college	3.5	5.9	12.1
Master’s degree (e.g., MA, MS)	2.6	5.6	9.8
Doctorate or professional degree	2.8	7.6	9.2
FINANCIAL CONDITIONS OF CHILDHOOD			
It was often difficult for my family to live on their income.	1.9	7.3	10.5
It was sometimes difficult for my family to live on their income.	2.1	5.9	12.0
My family was able to get by on their income.	2.2	5.5	9.4
My family was able to live comfortably on their income.	2.9	7.5	10.0

Sample is 9,668 working adults living in the United States.

Family business ownership rates were significantly lower among Black and Hispanic adults than other groups. Just 16% of Black workers and 22% of Hispanic workers come from families who owned their own businesses, compared to 25% of multiracial/other race workers, 29% of White workers and 30% of Asian workers.

In contrast, parental financial status and educational attainment are largely unrelated to ownership rates. Workers whose parents hold a bachelor’s degree but have no higher level of attainment own employer-businesses near the national rate (2.2%), and rates are not notably lower for workers whose parents did not attend college. Financial insecurity also does not predict ownership rates, except those who lived the most comfortably on their income are slightly more likely to be owner-employers. Those in the poorest group are equally likely to be non-employer owners as those growing up in more comfortable conditions.



Personality traits of business owners and aspiring owners

Despite their under-representation among owners, Black adults score relatively high on an index of entrepreneurial personality traits that is highly predictive of interest in becoming an entrepreneur, actions taken to become one and performance as an entrepreneur.

The long-term decline in entrepreneurship raises the possibility that people are less interested in starting businesses than they used to be and whether certain psychological patterns predict entrepreneurial action and interest.

Gallup reviewed psychology and management literature on entrepreneurship and personality to assess whether personality traits relate to entrepreneurial aspirations, actions and success.²⁰ For this study, Gallup identified several distinct concepts as relevant to this research question (see [Appendix Table 2](#)):

- 1 **Entrepreneurial self-efficacy:** defined as confidence in the ability to successfully perform the tasks associated with starting and running a business
- 2 **Internal locus of control:** defined as the extent to which a person feels they influence the course of their life and can navigate the world competently and predictably
- 3 **Orientation toward social achievement:** defined as the extent to which people value cooperating with others to benefit humanity
- 4 **Value placed on personal autonomy:** defined as a desire for autonomous, creative work that uses natural talents
- 5 **Non-cognitive skills, as measured by the Big 5 personality traits:** defined as conscientiousness, agreeableness, openness to experience, emotional stability and extroversion; we added determination, decisiveness and boldness to this list since they are related to conscientiousness but possibly more relevant to entrepreneurship and business leadership

Non-cognitive skills such as these are associated with a wide range of positive life outcomes, including higher levels of educational attainment, job performance, compliance with laws and health.²¹ After performing factor analysis on the items used for each of the five concepts, we refined our measure of each to the item that best reflected the construct, yielding two measures for entrepreneurial self-efficacy: one related to business development and creation and the other related to the capacity to perform business operations. A second analysis determined that orientation toward social achievement did not meet our cutoff for reliably contributing to an entrepreneurial personality, leaving the remaining four constructs (see [Appendix: Personality traits](#)). These were combined to create an index of entrepreneurial personality traits that define patterns of thought that we expect to be associated with entrepreneurship.

Among non-business owners, the entrepreneurial personality index is highly correlated with interest in becoming an entrepreneur and actions taken to become one, such as writing a business plan or contacting potential investors. Over half of non-owners scoring in the top quintile on the index (51%) have seriously considered starting a business, compared to just 21% in the bottom quintile. Those scoring in the top are also twice as likely to have taken two or more actions to start a business than those scoring in the bottom quintile (33% vs. 15%).

TABLE 6
Relationship Between Entrepreneurial Personality Index Scores and Entrepreneurial Interest, Status and Success

		1-Lowest quintile score on personality index (bottom 20th)	2	Middle quintile (40-60th percentile)	4	5-Highest quintile score on personality index (80th or higher)
Non-owners	% Seriously considered starting a business	20.6	23.8	28.7	36.1	50.9
	% Two or more actions taken to start a business	15.3	24.7	26.0	28.8	32.9
Ownership status	% Business owner	18.2	18.9	22.4	28.9	36.7
	% Owner of employer-firm	0.7	1.1	1.6	2.5	5.6
	% Owner of non-employer firm	4.8	4.1	5.7	7.3	10.7
Ownership success	% Success index	-30.4	-14.3	4.0	5.8	15.5
	% Business experienced positive revenue growth year-over-year in August 2023	12.5	20.4	26.0	29.3	32.5

The rates of actual business ownership are also much higher for those scoring higher on the entrepreneurial personality index. Among those scoring in the top quintile, 37% own a business that generated income in the previous month, compared to just 18% of those scoring in the bottom quintile. Those scoring in the top are eight times more likely to be an owner-employer than those scoring in the bottom (5.6% vs. 0.7%), and they are also more likely to be owners of non-employer firms (10.7% vs. 4.8%).

Interestingly, the index even differentiates among owners when it comes to business success. To measure business performance, Gallup collected data on annual revenue growth ending in August 2022 and August 2023, expected growth ending in 2023, profit margins in the last year and last month, and actual profits measured in the previous year and last month. Each indicator was ranked on a 1-to-100 scale and averaged. The final measure was standardized to have a mean of “0” and a standard deviation of one.

Using this measure of business performance, owners scoring in the top quintile of the entrepreneurial personality index performed nearly half a standard deviation higher than those scoring in the bottom quintile and substantially above the mean for all owners. To make this more concrete, we found that 32% of owners in the top quintile of the personality index experienced positive revenue growth from August 2022 to August 2023, compared to only 13% in the bottom quintile.

Thus, the entrepreneurial personality index captures important traits associated with the desire and ability to run a business.

This finding should not be surprising, as the items explicitly ask respondents about their likely self-efficacy in performing tasks associated with starting and running a business. Yet, it shows that owners’ level of confidence in their abilities mirrors objective reality, and even among non-owners, these traits predict objective steps taken toward starting a business.

Notably, the index results contradict demographic patterns found in employer-ownership rates. Black workers score the highest on the entrepreneurial personality index and significantly higher than Asian and White workers (who score the lowest). Hispanic workers score slightly lower than Black workers, followed by multiracial workers and all other races. A meta-analysis of racial differences in personality traits generally finds small differences but focuses on the Big 5 traits rather than locus of control or entrepreneurial self-efficacy.²²

Entrepreneurial trait scores also vary by age and educational attainment but not sex. Roughly half a standard deviation separates adults 65 and older from those under 25 — general work experience may increase confidence about operating a business. Likewise, there is a large gap between those with a doctorate/professional degree and those with a high school education or less. In general, higher levels of education predict higher scores on the entrepreneurial personality index.

TABLE 7
Index of Entrepreneurial Personality Traits by Demographic Group

Entrepreneurial personality traits	
RACE/ETHNICITY	
Asian or Asian American (including Middle Eastern/West Asian)	-0.15
Black or African American	0.34
Hispanic	0.07
Multiracial or other non-Hispanic group	0.16
White or European American	-0.08
SEX	
Female	-0.01
Male	0.01
AGE	
Under 25	-0.23
25 to 34	-0.12
35 to 44	-0.06
45 to 54	0.09
55 to 64	0.16
65 or over	0.24
EDUCATION	
High school education or less	-0.13
Some college — but no degree or certificate	-0.05
Completed industry certification or certificate program	-0.10
Two-year associate degree	-0.09
Four-year bachelor’s degree	0.02
Master’s degree	0.21
Doctorate or professional degree	0.23

The entrepreneurial ambitions and capacity of high-scoring adults on the entrepreneurial personality index raise the question of under-utilized talent. There are approximately 29 million employed U.S. adults who score highly (in the top quintile) on the entrepreneurial index who do not own a business that employs others. This includes approximately 6 million Black Americans and 6 million Hispanic Americans. Most in this group do not even own a business.



Management practices of successful business owners

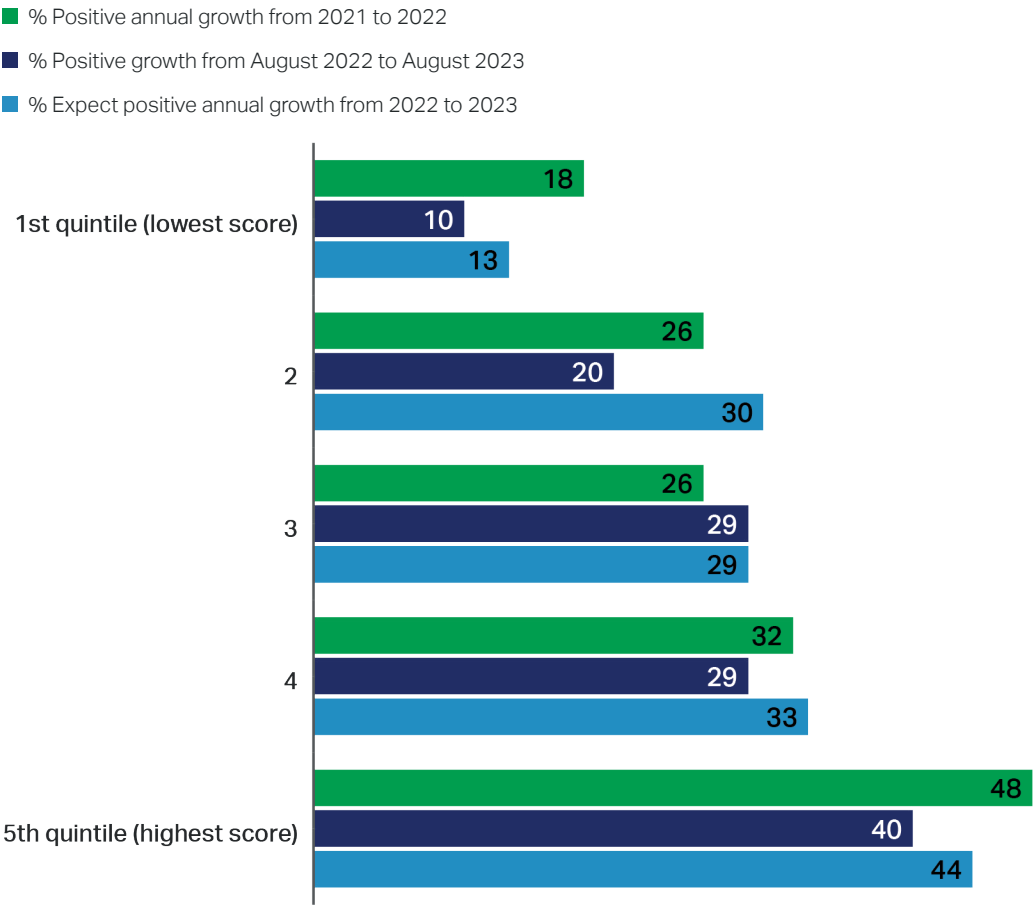
Business owners who score higher on a management practices index oversee better-performing businesses, as measured by recent revenue growth, profits and profit margins.

This form of competency is largely equitable across races/ethnicities and sexes, though it tends to increase with age and education.

To measure management practices, Gallup drew upon published management science research on the importance of setting goals, collecting and managing information, and aligning the incentives of partners or employees with high performance. Of 18 items fielded, 17 were retained based on a factor analysis, and these were used to calculate a management quality index (see [Appendix Table 3](#)).

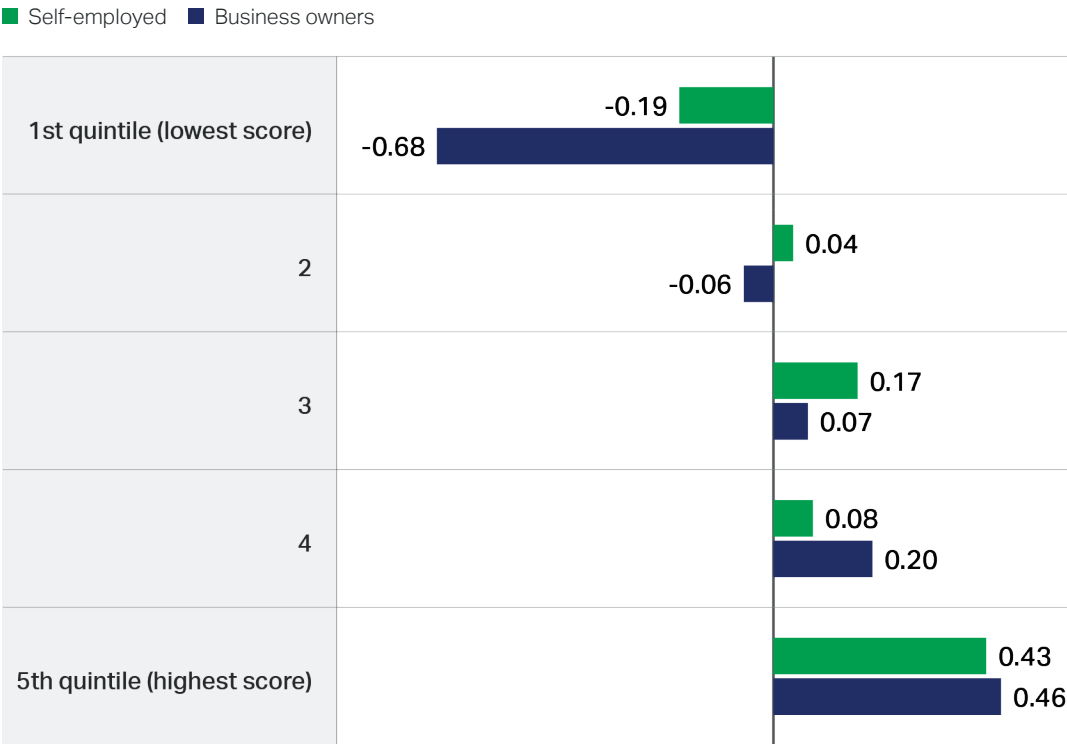
The link between management and performance is clearly illustrated by revenue growth. For firms led by owners who score in the top quintile of management practices, 40% experienced positive annual revenue growth from August 2022 to August 2023, compared to just 10% of firms led by owners scoring in the bottom quintile. Nearly half of top-scoring owners (44%) expected positive annual revenue growth in 2023 versus 13% of those scoring in the bottom quintile. These gaps in performance across management quality are similar for self-employed workers.

FIGURE 1
Business Revenue Growth by Quintile Score on Management Practices Index, Among Business Owners



Business performance, as measured by our standardized index of growth and profits, is demonstrably better for firms with managers who score in the top quintile of the management index. These top-scoring firms perform 0.46 standard deviations above the mean, whereas firms with bottom-quintile management scores perform 0.68 standard deviations below the mean. Management quality also predicts performance among self-employed workers, with a gap of 0.63 standard deviations in performance between the top- and bottom-scoring quintiles (compared to a gap of 1.13 for owner-employers).

FIGURE 2
Business Performance by Quintile Score on Management Practices Index



Note: Gaps in standard deviation may sum to $\pm 1\%$.

Management practices are modestly associated with the demographic characteristics of owners. There are no significant differences in the quality of management practices by the sex of the owner, and while adults with a high school diploma or less score lower than other groups, there are no significant differences between those with a bachelor’s degree and those with some college and no degree, an associate degree or graduate degree. Older owners, however, score significantly better on management practices than young owners, as management quality tends to increase with age.

By race/ethnicity, the differences are small and not aligned with patterns in the ownership rates of employer businesses. White Americans score just above the mean (0.03) and slightly higher than other groups, except multiracial/other Americans, who score the highest (0.20). Black Americans score just below the mean (-0.03), though the 95% confidence interval overlaps with the mean (-0.08 to 0.02). Asian Americans have somewhat lower scores than Black and White Americans and similar scores as Hispanic Americans despite much higher ownership rates. These patterns hold whether the model adjusts for age, sex or educational attainment.

TABLE 8
Management Practices Index Scores by Demographic Group

	Management practices score, owners	Management practices score, self-employed
RACE/ETHNICITY		
Asian or Asian American (including Middle Eastern/West Asian)	-0.15	-0.10
Black or African American	-0.03	0.08
Hispanic	-0.07	-0.05
Multiracial or other non-Hispanic group	0.20	0.07
White or European American	0.03	0.00
SEX		
Female	-0.02	0.06
Male	0.02	-0.05
AGE		
Under 25	-0.08	0.09
25 to 34	-0.10	-0.07
35 to 44	-0.03	-0.15
45 to 54	0.06	0.02
55 to 64	0.05	0.20
65 or over	0.25	0.04
EDUCATION		
High school education or less	-0.08	-0.13
Some college — but no degree or certificate	0.01	0.00
Completed industry certification or certificate program	0.00	0.17
Two-year associate degree	0.02	0.07
Four-year bachelor's degree	-0.01	0.00
Master's degree	0.03	0.02
Doctorate or professional degree	0.06	-0.11

Given the importance of personality traits and management practices, we tested their predictive power in explaining business performance, wellbeing, income and wealth while adjusting for age, sex, education level and race/ethnicity using linear models (see [Appendix Table 4](#)).

The results indicate a strong correlation between entrepreneurial personality traits and management practices in predicting business performance, wellbeing and income.

A one-standard-deviation increase in entrepreneurial personality traits predicts a 0.03 standard deviation increase in business performance, a 0.07 standard deviation increase in the likelihood of thriving in wellbeing, an 18% increase in income and a 7% increase in wealth. All except the wealth effect are statistically significant at 95% confidence levels.

A one-standard-deviation increase in management quality predicts a 0.22 increase in business performance, no increase in wellbeing, 7% higher income and 5% higher wealth, though the latter effect is not significant. These results are replicated for self-employed workers with similar outcomes.

An entrepreneurial personality also predicts higher wellbeing, income and wealth among non-owners, suggesting the utility of general competence associated with these non-cognitive skills.



Barriers to accessing capital

Black and Hispanic business owners report greater difficulty and higher rates of unfair treatment when accessing capital and customers than White or Asian business owners.

A majority of Black (72%) and Hispanic (61%) business owners who sought financing in the last year report difficulty acquiring it. White owners (40%) were much less likely to experience difficulty. Black and Hispanic owners are also three to four times more likely to report unfair treatment when seeking financing and acquiring customers or clients than White and Asian owners.

Most business owners report that they launched their business without external financing. Yet, starting an employer-firm likely requires greater resources related to hiring, payroll and other costs associated with employees. Consistent with this supposition, we found that 39% of employer-firm owners required external financing at the start, compared to 24% of non-employer owners and just 15% of self-employed workers.

Loans play a significant role in external financing. Among those who financed their business at its start, 61% of owner-employers used a loan to help start their business, compared to 41% of non-employer firm owners and just 16% of self-employed workers. Over one-quarter of both types of owners also drew upon capital from their social network, private equity or other professional investors at the time of startup. Once the business is up and running, revenue becomes the dominant source of financing for employer-firms (88%) and, to a lesser extent, non-employer firms (63%).

Reported needs for external financing are similar across races/ethnicities and sexes, as is the use of government-supported programs. Yet, Black and Hispanic owners report much greater difficulty in accessing financing than White or Asian owners. Black, Hispanic and Asian owners are also less likely to obtain the financing they requested than White owners. The same is true — though to a lesser extent — for women compared to men.



TABLE 9
Desire, Difficulty and Treatment When Seeking Financing by Owner
Demographics and Work Arrangement

	% Tried to secure financing within the past year	If sought, % who obtained the requested amount of financing	If sought, % who experienced difficulty getting financing	% Experienced unfair treatment in seeking loans in the last 5 years	% Experienced unfair treatment in seeking customers in the last 5 years	If have loan, interest rate of largest loan (average)	% Received any funding from PPP	% Received any local or state government support	% Received any federal government support
RACE/ETHNICITY									
Asian or Asian American (including Middle Eastern/ West Asian)	8	N/A	N/A	4	6	N/A	10	5	4
Black or African American	11	8	72	17	11	6.3	9	8	2
Hispanic	5	30	61	11	7	5.5	12	6	3
White or European American	6	41	40	4	4	6.3	13	6	5
Multiracial or other non-Hispanic group	9	35	61	16	16	7.2	18	8	7
SEX									
Female	7	28	55	8	7	6.2	11	6	3
Male	6	34	42	5	6	6.0	14	6	5
WORK ARRANGEMENT									
Mostly employee with other arrangements	5	33	56	4	3	5.8	5	12	6
Owner-employer	15	46	44	9	6	6.5	55	38	53
Non-employer owner	9	41	47	11	8	6.6	19	18	18
Self-employed	5	13	44	7	9	5.5	8	20	6

The survey asked owners if, over the past five years, they experienced any unfair treatment in trying to acquire a loan or financing for their business. They were also asked if they experienced any unfair treatment in acquiring customers or clients over the same period.

Most owners say they were treated fairly, but perceptions of fairness differed notably by race/ethnicity and sex. Black and Hispanic owners were three to four times more likely to report unfair treatment in seeking financing and acquiring customers or clients than White and Asian owners. Four percent of White and Asian owners say they were treated unfairly in attempting to acquire financing over the previous five years, compared to 17% of Black owners and 11% of Hispanic owners. Black and Hispanic owners are much more likely to believe their race was a factor in the way they were treated compared to non-Black and non-Hispanic owners (who are pooled to allow for a large enough reporting sample). Women are approximately four times more likely than men to say their sex was a factor.

TABLE 10
Perceived Factors Impacting the Unfair Treatment of Owners Trying to Acquire Capital or Customers

	% Black or Hispanic owners		% Neither Black nor Hispanic owners		% Female		% Male	
	Access to capital	Access to customers	Access to capital	Access to customers	Access to capital	Access to customers	Access to capital	Access to customers
My age	24	42	15	36	23	40	22	40
My race	60	47	13	13	39	22	35	32
My ethnic background or heritage	33	32	17	8	25	10	23	25
My sex or gender	27	18	17	21	33	30	5	10
My sexual orientation	14	17	0	3	12	13	6	4
My citizenship status	3	5	5	3	1	1	6	6
My religion	6	2	1	11	1	5	7	8
Some other reason	25	12	69	38	44	20	41	35

Conclusion

One clear result from this research is that employing others is strongly linked to greater wealth and higher wellbeing. Entrepreneurship programs — philanthropic and at many levels of government — would be more likely to contribute to wealth-building, job satisfaction and life satisfaction if the goal was creating more owner-employers, not just owners, as most self-employed people and non-employer owners do not make it to that final tier.

Several studies have documented disproportionately low business ownership rates among Black and Hispanic adults, but this study dives further into the data to reveal that these low rates are not found for non-employer firms and self-employment. In so far as greater access to capital is required to launch an employer-business, disparities in wealth and access to capital, rather than any differences in entrepreneurial interests, likely explain the differing rates of ownership. Confirming previous work, Black and Hispanic owners are more likely than other owners to report difficulty acquiring financing and are also more likely to report unfair treatment in acquiring financing or customers within the past five years. Although experiences of unfair business treatment within the past five years are not common among both Black and Hispanic owners, these owners are more likely to report unfair treatment than other groups. Both direct and indirect knowledge of such treatment may deter would-be entrepreneurs — and explain why Black owners, in particular, express pessimism about obtaining credit and are less likely than others to request credit when needed, even when they have a high credit score.²³



Further evidence comes from the findings that Black and Hispanic adults are more likely than other groups to possess the entrepreneurial personality traits associated with business ambition and performance, and there are no significant racial differences in the management practices that are closely linked to financial performance.

These results suggest that programs encouraging entrepreneurship — and offering training on how to navigate the start-up process — may prove fruitful in activating latent talent. Publicizing best-practice management techniques may also be useful, as research has found that management training boosts performance.²⁴ In either case, the findings of this study suggest that focusing on launching employer-businesses, rather than non-employer businesses or self-employment, may lead to more positive outcomes for the business owner and the U.S. economy broadly.



Additional research is needed to better understand several issues related to the themes raised in this study, and the results are limited by the cross-sectional data from the survey. We plan to collect longitudinal data from these respondents to more confidently answer such questions as:

- What resources or traits predict whether someone launches an employer-business or develops one from a non-employer business?
- Do financially successful non-employer businesses hire workers?
- What external resources may help steer entrepreneurs toward launching employer-businesses?

Longitudinal work could also help clarify causal relationships between business situations, personality traits, management practices and wealth generation, which are unclear in the present analysis. It could also help explain why non-owners with entrepreneurial personality traits have not started a business.

Across the United States, approximately 31 million working adults possess the personality traits and characteristics associated with a high level of motivation and competence in starting and running a business. Yet less than half of these Americans (37%) currently own a business, and only a fraction (6%) employs others. An even higher share of Black Americans (34%) possesses these entrepreneurial personality traits, but less than 1% employ others. In all, there are an estimated approximately 1.5 million Asian working adults, 6 million Black adults, 6 million Hispanic adults, 15 million White adults, 14.5 million women and 15 million men with high potential who do not currently employ others (see [Appendix Table 5](#)).

While the reasons for not becoming an owner are unclear, many employees are seemingly missing opportunities to generate higher wealth for themselves, their families and their communities and to boost their wellbeing by doing work that suits their inclinations. Likewise, many self-employed workers and non-employer owners are missing the advantages of taking the next step — becoming an employer, which is a potentially fruitful pathway to wealth and enhanced wellbeing.

Appendix

Weighting

The weighting methods described in this report are limited by the fact that the Census Bureau's ABS does not report race using mutually exclusive categories, which is how race and ethnicity are reported here. This could increase the margin of error in reporting by race and ethnicity.

In the analysis above, all racial groups are non-Hispanic, and anyone who selects more than one race is classified as Hispanic if they are also Hispanic or multiracial if they are not. This method follows typical reporting from the Census Bureau's other surveys as well as Gallup reporting standards.

By contrast, the ABS counts an owner as belonging to a particular racial group if the surveyed owner owns at least 51% of the business and indicates that they identified with the racial group in question. A multiracial Black and White owner might be recorded as a Black owner and as a White owner if they responded that way on the ABS but not as a multiracial owner. Moreover, if the owner is Hispanic, they would also be counted as such.

To account for the ABS data and the reporting needs, Gallup's methodologists calculated targets for weighting that allowed people with Hispanic ethnicity to count toward the population of each racial group and the Hispanic-of-any-race total. This will tend to understate ownership rates for the non-Hispanic population since Hispanic adults have a relatively low ownership rate. Gallup also classified all multiracial adults in the ACS separately from the other large racial groups. This will slightly overstate ownership rates for each racial group (but not Hispanic Americans) relative to those reported by the ABS by deflating the population count to only adults who are single-race, even as the ABS owner counts include adults who are multiracial. Since the analysis excludes multiracial adults from the reported racial categories, the final analysis should be close to the true estimate. Readers should take caution, however, in considering racial differences for these reasons.

To guide interpretation and check the robustness of our weighting methods, we provide alternative estimates for the demographic differences in ownership rates in [Appendix Table 1](#). Aside from the slight differences in racial/ethnic classification used between the data in [Appendix Table 1](#) and those shown in the report ([Table 4](#)), the definition of an owner-employer also differs. In this report, owner-employers who say they spend most of their time working as an employee or for a self-employed business are not included as owner-employers. This applies to approximately one-third of all survey respondents who say they own a business that employs others. However, it is possible that a substantial fraction of these adults would not be majority owners and, therefore, would not qualify as a business owner under the ABS collection. The ABS also requires that the business have at least \$1,000 in receipts during the target year, which is not a requirement in the Gallup survey.

APPENDIX TABLE 1

Employer-Firm Ownership Rate by Demographic Group, Using 2021 Census Bureau Data

	Employer-firm ownership rate	Owners of employer businesses, 2021	Employed adult population, 2021
ALL WORKING ADULTS			
Total	2.8%	4,405,065	155,808,082
RACE OF OWNER, INCLUDES HISPANIC POPULATION			
American Indian and Alaska Native	1.1%	40,705	3,706,543
Asian	3.9%	448,127	11,452,756
Black or African American	0.5%	93,941	19,942,100
Native Hawaiian and Other Pacific Islander	1.1%	7,040	661,270
White	3.3%	3,815,252	114,388,344
HISPANIC ETHNICITY OF OWNER			
Hispanic of any race	1.0%	279,799	28,279,364
SEX			
Female	1.9%	1,361,624	73,380,215
Male	3.6%	2,992,958	82,427,867
EDUCATION			
Less than high school graduate	1.0%	112,712	11,690,366
High school graduate — diploma or GED	2.1%	789,310	37,506,239
Some college, but no degree	2.6%	825,450	32,205,700
Associate degree	1.7%	240,912	14,342,136
Bachelor's degree	3.9%	1,361,180	34,848,012
Master's degree	2.9%	442,063	15,203,534
Doctorate degree	3.5%	96,718	2,753,514
Professional degree beyond a bachelor's degree	12.6%	486,616	3,854,451

	Employer-firm ownership rate	Owners of employer businesses, 2021	Employed adult population, 2021
AGE			
Under 25	0.1%	14,210	18,321,629
25 to 34	0.6%	218,339	34,969,748
35 to 44	2.2%	756,386	34,371,968
45 to 54	3.5%	1,088,950	31,477,971
55 to 64	4.8%	1,285,164	26,867,487
65 or over	10.1%	991,533	9,799,279
HEARTLAND REGION			
"Heartland" region: Iowa, Kansas, Missouri and Nebraska	3.8%	261,309	6,952,109
Not in "heartland" region	2.7%	4,093,273	148,855,973
IMMIGRATION STATUS			
Born in the United States	2.8%	3,548,179	126,224,189
Foreign-born	2.7%	806,574	29,583,893

All population data are from the 2021 American Community Survey, accessed via IPUMS USA. The sample excludes persons under the age of 18 and those who are not currently working for pay. Ownership data are from the 2022 Annual Business Survey, with reference to the year 2021. Racial groups include Hispanic populations.

Personality traits

To measure the traits that predict entrepreneurial activity and success, we included the constructs from literature that have demonstrated the most consistent validity.²⁵ Using items developed by Gosling and colleagues, we collected measures of the Big 5 personality traits and added measures of boldness and determination, inspired by work on grit and related constructs.²⁶ To measure the internal locus of control, we drew up items recently fielded and validated by German scholars.²⁷ We also fielded items to measure the need and value placed on achievement, adapting items from published work.²⁸ The idea of entrepreneurial self-efficacy was used to develop items to measure entrepreneurial confidence and the expected capacity to start and run a business.²⁹ With this list of items, we ran principal factor analysis using Stata V18 on each subset of constructs. We retained items if they loaded on a factor with a correlation of 0.40 or higher. The items are listed in [Appendix Table 2](#).

For personality traits, we found only one eigenvalue above 1. We retained six of eight constructs: conscientiousness, boldness, determination, decisiveness, emotional stability and extroversion (alpha = 0.62). We consider high-scoring respondents to demonstrate an effective, generally competent personality.

For internal locus of control, we found only one eigenvalue above 1 (3.0). We retained eight of 17 items with a loading of 0.4 or higher (alpha = 0.74).

We fielded 13 items measuring orientation toward social impact and the value placed on different aspects of work; after principal factor analysis, we retained two eigenvalues, and to differentiate constructs, we applied an oblique rotation, setting gamma to zero using oblimin (alpha = 0.83). The two constructs could be described as the value placed on social impact (work that benefits humanity and one's community) (alpha = 0.83) and the value placed on autonomy and authenticity (doing work that is independent from others, creative and uses your natural talents) (alpha = 0.73). Each consisted of five factors.

For entrepreneurial self-efficacy, we retained two factors (eigenvalue = 7.6 and 1.2), retaining 15 of 16 items. The first factor measures efficacy in starting and developing a business with 12 items (alpha = 0.92). The second factor, with three items, measures efficacy in business operations (alpha = 0.80).

Our final measure captures the *entrepreneurial personality index* (alpha = 0.75). It is the mean of five standardized constructs: competence, internal locus of control, desire for autonomy, desire to benefit others, entrepreneurial self-efficacy and operational self-efficacy. It is recalibrated as the weighted z-score (mean = 0 for the weighted sample; std deviation is 1).

APPENDIX TABLE 2
List of Personality Traits and Related Measures Used in Analysis

Construct	Item
Please indicate the extent to which you agree or disagree that each personality trait applies to you. 1. Strongly disagree - 5 Strongly agree	
Non-cognitive skill-Boldness	I see myself as adventurous, bold
Non-cognitive skill-Boldness (RE)	I see myself as cautious, slow to make decisions
Non-cognitive skill-Determination	I see myself as persistent, determined
Non-cognitive skill-Extroversion	I see myself as extroverted, enthusiastic
Non-cognitive skill-Agreeableness (RE)	I see myself as critical, quarrelsome
Non-cognitive skill-Conscientiousness	I see myself as dependable, self-disciplined
Non-cognitive skill-Emotional stability (RE)	I see myself as anxious, easily upset
Non-cognitive skill-Openness to experience (dropped)	I see myself as open to new experiences, complex
Non-cognitive skill-Extroversion (RE)	I see myself as reserved, quiet
Non-cognitive skill-Agreeableness	I see myself as sympathetic, warm
Non-cognitive skill-Conscientiousness (RE)	I see myself as disorganized, careless
Non-cognitive skill-Emotional stability	I see myself as calm, emotionally stable
Non-cognitive skill-Openness to experience (RE) (dropped)	I see myself as conventional, uncreative
How important is it for you to do work that has the following characteristics? 1 (not at all) - 4 (important)	
Value social impact	Benefits humanity
Value social impact	Contributes to the wellbeing of your community
Value social impact	Involves cooperation and partnership
Value social impact	Requires you to be responsible for others
Value social impact	Requires you to inspire others to do their best work
Value autonomy	Allows you to work on your own time and at your own pace
Value autonomy	Gives you the freedom to make decisions
Value autonomy	Is challenging, involving difficult, hard work
Value autonomy	Allows you to be innovative or creative
Dropped	Rarely requires long hours and late nights
Dropped	Is routine and predictable on a day-to-day basis
Value autonomy	Allows you to use your natural talents to the fullest
Dropped	Could lead to great wealth, prestige, or fame

Construct	Item
To what extent do you think each statement applies to you personally? 1. Strongly disagree - 5 Strongly agree	
Internal locus of control--Factor 1	I am in control of my life
Internal locus of control--Factor 1	If I work hard, I will succeed
Internal locus of control--Factor 1	I keep working on a problem until I solve it
Internal locus of control--Factor 2 (RE)	I give up when things become difficult
Dropped	I know when it is time to end something
Internal locus of control--Factor 1	I am willing to put in years of work to accomplish something important
Internal locus of control--Factor 1	I frequently turn to others for help
Dropped	People often let me down or fail to live up to my expectations
Internal locus of control--Factor 2 (RE)	Whether at work or in my private life, what I do is mainly determined by others
Internal locus of control--Factor 2 (RE)	Fate often gets in the way of my plans
Internal locus of control--Factor 1	I often misplace items like my phone or car keys
Internal locus of control--Factor 1	My home is always stocked with the items I need
Dropped	I like to figure out how to do things myself rather than rely on others
Internal locus of control--Factor 1	My friends would say that I am a highly disciplined person
Internal locus of control--Factor 1	I exercise regularly
Internal locus of control--Factor 1	I eat healthy every day
Internal locus of control--Factor 1	People trust my judgment

Construct	Item
How much confidence do you have in your ability to do the following things, if needed? 1. No confidence 4. High confidence	
Entrepreneurial self-efficacy--Factor 1	Come up with an idea for a new product or service
Entrepreneurial self-efficacy--Factor 1	Identify consumer demand for a new product or service
Entrepreneurial self-efficacy--Factor 1	Design a product or service that will satisfy customer or client needs and wants
Entrepreneurial self-efficacy--Factor 1	Determine a competitive price for a new product or service
Entrepreneurial self-efficacy--Factor 1	Estimate the costs needed to operate a new business
Entrepreneurial self-efficacy--Factor 1	Design an effective marketing or advertising strategy for a new product or service
Entrepreneurial self-efficacy--Factor 1	Get others to identify with and believe in your visions and plans for a new business
Entrepreneurial self-efficacy--Factor 1	Network and establish new business contacts
Entrepreneurial self-efficacy--Factor 1	Clearly and concisely explain a new business idea
Entrepreneurial self-efficacy--Factor 1	Start a new business
Operational self-efficacy--Factor 2	Manage the financial assets of your own business
Operational self-efficacy--Factor 2	Organize and maintain financial records of your own business
Operational self-efficacy--Factor 2	Measure and interpret key performance indicators for your own business
Entrepreneurial self-efficacy--Factor 1	Start a new business in an unfamiliar industry
Entrepreneurial self-efficacy--Factor 1	Raise capital for your business
Dropped	Succeed in any endeavor you set your mind to

Management practices and systems

To measure management practices, we relied on two sources to identify constructs relevant to the successful organization and management of businesses. First, we drew upon the U.S. Census Bureau's Management and Organizational Practices Survey (MOPS) and the World Management Survey. Developed out of research by economists Nicholas Bloom and John Van Reenen, both measure operations, monitoring, performance targets and incentives.³⁰ Originally designed for manufacturing firms, we adapted the items to better fit the situations small businesses face, including firms with no employees.

We also incorporated several constructs related to the systemic organizational business practices that predict the successful and sustainable performance of mid-sized businesses. These constructs came from Gallup's research on business executive systems and practices through a partnership with the company True Space.³¹ The concepts were developed from True Space's ethnographic research on mid-sized businesses and formalized in partnership with Gallup social scientists. These constructs include an item that measures the extent of customer focus for executives and another that measures pro-customer innovation goals. Other concepts from this list overlap with the management practices described above (such as performance-based decision-making, the clear delegation of authority, feedback systems, etc.), but the item wording from Gallup's work with True Space better aligns with the population of owners surveyed here.

Combining both sources, we fielded 18 items (shown in [Appendix Table 3](#)) and retained 17 after principal component factor analysis. Two factors were retained; a third had an eigenvalue slightly above 1 but no clear loadings. The first factor tended to measure organizational systems meant to identify and resolve problems in business operations. The highest loading was on the item "When things go wrong, I have processes in place to figure out why and prevent it going forward." The second factor addressed whether the business finds ways to improve, screen out or remove poor performers, and whether the business is open to feedback from subordinates and customers. The highest loadings on this factor were the reverse-coded statements: "I have business partners or employees who consistently perform poorly" and "Employees and business partners rarely suggest ways to improve the business's products or services." Executives of higher-scoring companies also spend more time with customers than on other activities and make R&D investments related to improving value for customers.

After standardization, we combined all 17 items into two indexes and then took the mean of each to calculate a single-item summary measure, which we refer to as management quality ($\alpha = 0.80$). For an applicable set of 10 management items, we collected the same information from self-employed business owners. We retained nine of the 10 items. Together, they had high reliability ($\alpha = 0.82$).

The final index is standardized using the sample weight. This is done separately for self-employed workers and those who are owners. Anyone who earns income from business ownership is included in the analysis of owners. For self-employed, the analysis is restricted to those who primarily do self-employed work using the definition shown in [Table 1](#).

APPENDIX TABLE 3**Management Items**

Factor loading	Item	Item wording	Used in self-employment index
Factor 2	1	Within the past 12 months, has your company introduced a new product or service for any of the following reasons? Coded as 1 if selected either: To provide a higher-quality product or service; To cut costs for clients/customers	Not tested
Factor 2	2	When working on your business, what percentage of your time is spent on the following activities, estimating as best you can? Mean of time spent: Providing services to customers or clients; Engaging with existing customers or clients	Dropped
Factor 1	3	Clear priorities guide my day-to-day activities	Yes
Factor 1	4	I track a set of key performance indicators to guide strategic decisions	Yes
Factor 1	5	When things go wrong, I have processes in place to figure out why and prevent it going forward	Yes
Factor 1	6	I routinely solicit or receive feedback from customers or clients about how the business could do better	Yes
Factor 2	7	Employees and business partners rarely suggest ways to improve the business's products or services	Not tested
Factor 1	8	When employees or business partners under-perform, they are given constructive feedback	Not tested
Factor 2	9	I have business partners or employees who consistently perform poorly	Not tested
Factor 1	10	I share key business performance data with stakeholders	Not tested
Factor 1	11	My leading employees or business partners were recruited using a formal process	Not tested
Factor 1	12	I give bonuses or other financial incentives to my top business partners/employees	Yes
Factor 1	13	I often delegate responsibilities and decisions to others (for example, business partners or employees)	Yes
Factor 1	14	I solicit feedback from key stakeholders before making important decisions about the business	Not tested
Factor 1	15	Customers, clients, employees and business partners understand the distinct value that my business brings to them	Yes
Factor 1	16	The business sets aside resources to develop new and better goods and services	Yes
Dropped, weak loading	17	Friends and family often help out with the business	Yes
Factor 1	18	My business is well-managed compared to my competitors	Not tested

APPENDIX TABLE 4

The Association Between Entrepreneurial Personality Traits and Management Practices With Wellbeing and Financial Outcomes

		Entrepreneurial personality traits (standardized index)	Std. error	Management practices (standardized index)	Std. error	Observations	Adjusted R-squared
Owners	Business performance (standardized index)	0.0343*	(0.0187)	0.2235***	(0.0130)	2,852	0.1249
	Thriving in wellbeing	0.0657***	(0.0098)	0.0118*	(0.0068)	2,851	0.0625
	Income (natural log)	0.1813***	(0.0395)	0.0743***	(0.0266)	2,483	0.1879
	Wealth (natural log)	0.0682	(0.0493)	0.0533*	(0.0308)	1,780	0.3305
Self-employed	Business performance (standardized index)	0.1409***	(0.0485)	0.0891*	(0.0505)	454	0.0763
	Thriving in wellbeing	0.1000***	(0.0246)	0.0482*	(0.0256)	454	0.1083
	Income (natural log)	0.2414**	(0.1133)	0.1529	(0.1088)	412	0.0774
	Wealth (natural log)	0.6815***	(0.1609)	-0.2039	(0.1640)	296	0.3642
Employees	Thriving in wellbeing	0.1197***	(0.0065)			6,113	0.0867
	Income (natural log)	0.1087***	(0.0132)			5,784	0.2013
	Wealth (natural log)	0.2088***	(0.0315)			4,260	0.2676

Notes. *** p<0.01, ** p<0.05, * p<0.1. All models adjust for educational attainment level, age group, race/ethnicity and sex of respondent. Each row represents a different model. Employees are defined as workers who are non-owners and who are not self-employed.

APPENDIX TABLE 5
Estimated Number of Working Adults With Under-Utilized Entrepreneurial Potential
by Race/Ethnicity and Sex

	Working adults with entrepreneurial traits who are non-employers	Owner-employers	Non-employers with entrepreneurial traits as share of group population
Asian or Asian American (including Middle Eastern/ West Asian) adults	1,507,212	265,116	15.3%
Black or African American adults	5,802,634	119,023	33.2%
Hispanic adults	6,141,557	328,041	21.7%
White or European American adults	14,959,218	3,012,285	15.3%
Female	14,504,786	1,089,843	19.8%
Male	14,928,337	2,622,113	18.1%
Total	29,400,118	3,718,531	18.9%

Note: Entrepreneurial traits are defined as those scoring in the 80th percentile or higher on the entrepreneurial personality index. The number of pure owner-employers is larger (4.4 million in the 2022 ABS), but our classification includes only owner-employers who spend most of their work hours working for a business they own. Data are from the U.S. Census Bureau, 2022 American Community Survey, via IPUMS USA and the Annual Survey of Business Owners

APPENDIX TABLE 6
Sector Composition of Gallup Sample Compared to U.S. Government Sources

	Percentage of employer-owners in Gallup sample, weighted	Percentage of employer- owners, ABS	Percentage of all business establishments with employees (QCEW)
Agriculture, forestry, fishing and hunting	9.2%	0.5%	1.0%
Mining, quarrying, and oil and gas extraction	1.1%	0.3%	0.3%
Utilities	0.2%	0.0%	0.3%
Construction	11.3%	13.1%	7.8%
Manufacturing	3.9%	3.8%	3.3%
Wholesale trade	3.9%	5.5%	5.3%
Retail trade	7.7%	10.8%	9.0%
Transportation and warehousing	2.0%	2.8%	3.0%
Information	2.6%	1.1%	2.4%
Finance and insurance	4.8%	4.4%	4.8%
Real estate and rental and leasing	8.6%	6.0%	4.1%
Professional, scientific, and technical services	14.8%	16.0%	13.9%
Management of companies and enterprises	0.8%	0.2%	0.8%
Administrative and support and waste management and remediation services	0.4%	6.0%	5.8%
Educational services	2.0%	1.2%	2.0%
Health care and social assistance	8.2%	10.7%	16.1%
Arts, entertainment, and recreation	4.9%	2.1%	1.6%
Accommodation and food services	5.9%	9.1%	6.6%
Other services	4.6%	6.9%	7.4%
Government or other industries not classified	1.1%	0.1%	4.6%

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