At the Extremes:
Student Debt and Entrepreneurship

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YOUNG INVINCIBLES
together, invincible

Contents

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EXECUTIVE SUMMARY

Perhaps no other age cohort is associated more with entrepreneurship than Millennials.[1] Young entrepreneurs in Silicon Valley and around the country have become a symbol of the generation's ability to combine creativity with business acumen to disrupt traditional markets. However, over the past two decades, people between the ages of 20 and 34 fell from being the largest cohort of new entrepreneurs, at nearly 35 percent, to the smallest, making up just 22.7 percent of new entrepreneurs.[2]

Despite the decline in entrepreneurship among young adults, recent survey data collected by Young Invincibles shows 51 percent of young adults own or are interested in owning a business.[3] However, in the same survey, 48 percent of young adults that either already own a business or have plans to do so identified student loan debt as one of the main barriers to entrepreneurship.[4] Since 2004, total student loan debt more than tripled in size, to roughly $1.2 trillion. The spike in student loan debt levels, concurrent drop in business formation, and new opinion polling of young adults raises the question about a possible link between the trends.

To that end, this brief taps a previously underutilized survey of recent college graduates to explore the relationship between student loan debt and entrepreneurial behavior. We profile young, college-educated entrepreneurs and their diverse socio-demographic, educational, and economic backgrounds. Next we examine their career paths and earnings. Finally, we analyze student loan borrowing rates, amounts, and repayment prospects among entrepreneurs. With some exceptions, the data show a relationship between higher debt and lower rates of business formation, but undermines popular misconceptions about who starts businesses. Our key findings include:

Higher student loan debt corresponds with lower rates of young adult entrepreneurship (except, paradoxically, at the highest levels of debt, where the trend reverses.) Young entrepreneurs are slightly less likely to have borrowed student loans than their peers, but are more likely to borrow at the extremes, either at the lowest or the highest levels. Just over 68 percent of young entrepreneurs took out student loans compared to more than 72 percent of traditionally employed young adults. Additionally, when young entrepreneurs did borrow they were most likely to borrow less than $17,000 but also more likely to borrow more than $59,050.

Nearly half of college-educated young entrepreneurs report that student debt impacted their employment plans. More than 46 percent of young entrepreneurs reported that student loan debt caused high or very high levels of stress, slightly higher than non-entrepreneurs in our dataset. Young entrepreneurs also reported taking less desirable jobs and/or taking a job outside their field due to their debt. Also, nearly 25 percent of self-employed young adults reported not being able to meet their essential expenses each month and nearly 16 percent had at least part of their student loans paid for by their family or friends, both higher rates than non-entrepreneurs.

Young college-educated entrepreneurs are somewhat more diverse than the Silicon Valley myth of young, white men building technology start-ups suggests. Most new entrepreneurs with a four-year degree are over age 35, and among young entrepreneurs more than half are women and more than a quarter are people of color. Additionally, at least 45 percent of new businesses don't have a website and more young entrepreneurs work as artists, designers, personal care professions than in technology fields. Young entrepreneurs are

also less likely to come from middle income families than from families with high or low incomes.

Young entrepreneurs with four-year degrees are far more likely than their peers to earn incomes at the extremes. Not only are young entrepreneurs in our dataset more than three times as likely to have incomes below $16,000 than their peers but they are also more likely than their traditionally employed peers to earn more than $76,000.

Introduction

The term entrepreneurship conjures ideals of creativity, innovation, and opportunity. The American experience celebrates entrepreneurship as a unique driver of economic output and job creation. Indeed, a recent Kauffman Foundation report noted that small businesses less than one year-old created an average of 1.5 million jobs per year for the past three decades.[5] Moreover, they found that newer, smaller firms (i.e., less than 20 employees and less than five years-old) had a larger positive impact on the nation's net employment than larger and older firms, which lost more jobs than they created.

But business creation in the United States has declined over the last two decades, causing concern for policymakers and economic researchers.[6] During this same time period, entrepreneurship among Millennials - a generation full of optimism and innovative ideas - slid faster than older generations. In fact, just twenty years ago, young adults represented the largest cohort of new entrepreneurs, but by 2013 the cohort had shrunk to the smallest, just 23 percent of new entrepreneurs.[7]

Despite this decline in entrepreneurship among young adults, recent survey data collected by Young Invincibles shows that more than half of its sample of Millennials continues to have substantial interest in business creation.[8] In the same survey, nearly half of young adults who reported being a new entrepreneur or had aspirations of starting a business identified student loan debt as a major financial barrier. Additionally, about 4 in 10 of these young adults said that student loan debt had already, or would impact their ability to invest in an organization or hire new employees.[9]

These self-reported challenges are not surprising, given the trends, and warrant additional research. Tuition has risen quickly and researchers are studying its effects, and those of associated student debt, on major financial decisions such as returning to school, buying a home, getting married and having children. Between 2005 and 2015 the net average cost of tuition and fees at a public four-year institution rose from $6,710 to $9,410, a 40 percent increase.[10] By 2014, 69 percent of college seniors graduating from either public or private nonprofit colleges had student loan debt, owing an average of $28,950.[11] Since 2004, the total student loan debt more than tripled in size, from $346 billion to more than $1.157 trillion in 2015.[12] Researchers and policymakers have shown increasing interesting in the effect of student loan burdens on entrepreneurs.

This brief employs a previously underutilized survey of recent college graduates to examine the economic circumstances of young entrepreneurs. We first consider the myths and misconceptions around contemporary entrepreneurship by exploring the diverse backgrounds and experiences of young people who form businesses. After profiling young entrepreneurs, we explore the relationship between student loan debt and young, college-educated adults' entrepreneurial behavior. Finally, we discuss our findings and opportunities for further research on the topic.

WHAT IS ENTREPRENEURSHIP IN 2016?

Defining entrepreneurship in 2016 is an important but difficult task. The text box to the right, discusses why it has been so difficult for researchers to comprehensively identify entrepreneurs. Having such a flexible definition, and one that is so dependent on self-identification, impacts the ability of policymakers to address the problems entrepreneurs face. Without a clear understanding of the differences between, for example, Main Street and technology-based entrepreneurs, or whether self-employed people intentionally choose entrepreneurship or are driven to it by other factors, policymakers are bound to make imprecise policy decisions.

Entrepreneurship Defined

Merriam Webster defines an Entrepreneur as: one who organizes, manages, and assumes the risks of a business or enterprise.

Though that seems clear there is no consensus among researchers about how to define the group. For the purposes of measuring business creation, entrepreneurs are simply those that start new businesses. However, entrepreneurialism generally can be a measure of those who drive change and take financial risks in order to implement their vision.

Most researchers depend on survey data (either from the Bureau of Labor Statistics or other sources) where entrepreneurs self-identify. Because of this there is no way to identify which survey participants are formal business creators versus those who identify as an entrepreneur for another reason.

Tech-based platforms continue to drive the emergence of a class of new entrepreneurs who are not engaged in more traditional business creation, but instead utilize the internet and mobile apps to create opportunities for part-time work and participation in the "gig-economy." In particular, the rise of mobile apps and labor platforms like Uber, TaskRabbit, AirBnB, and Etsy have contributed to a new group independent contractors that consider themselves self-employed and entrepreneurial.[13] Like a more traditional entrepreneur, one reason gig economy opportunities might be growing is because of the attractive nature of being your own boss. In fact, in a recent survey of Uber drivers, 87 percent listed "being their own boss" as one of the benefits of working for Uber.[14] But other research has suggests that gig economy workers are using gigs to supplement their income, rather than to be their own boss. A recent study by JPMorgan Chase found that only 25 percent of gig economy workers were using either a labor platform or a capital platform to make more than 75 percent of their monthly income. They also found that more workers were using the gig economy as a "side hustle" and that 46 percent of gig economy workers made less than 25 percent of their income doing so.[15] In other words, many participants in the gig economy may be participating to supplement jobs that pay too little, or because they are unable to find traditional employment elsewhere.

Entrepreneurship Myths Busted

- *More than 75 percent of new entrepreneurs each year are over age 35*
- *Small businesses are mainly working in the healthcare, accommodation and food service, retail, and manufacturing industries*
- *17 percent of self-identified entrepreneurs actually acquire their businesses either through a transfer of ownership or by purchasing it*
- *45 percent of new businesses don't even have a website.*

The popular narrative about an entrepreneur throughout the 2000s was replete with stories of Mark Zuckerbergs -- young, white, males -- creating tech-driven startups like Facebook or Uber.[16] However, entrepreneurs in 2016 increasingly challenge that dominant narrative. The research below shows that they engage in business

creation outside of tech fields, are slightly older, and buy or inherit their businesses at a higher rates than expected.

There are many ways that the reality of entrepreneurship is different than the young tech start up myth, or even the gig economy narrative. For example, despite the rise in these "new entrepreneurs," the majority of new small businesses and entrepreneurs are not internet-based or part of the gig economy. In fact, at least 45 percent of new businesses don't even have a website[17] and analysis of workforce data shows that gig economy workers make up only one half of one percent of the total workforce and that the majority of young entrepreneurs work just one job.[18] Further undermining the narrative that entrepreneurs are primarily Millennials, recent data show that more than 75 percent of new entrepreneurs each year are over age 35, with the largest cohort being made up of 45-54 year olds.[19]

There are other ways that entrepreneurs are break with the myth of a young person toiling at their single great idea. According to the most recent U.S. Census Bureau survey of Business Owners (2012), nearly one in five individuals that identify themselves as entrepreneurs actually acquire their businesses either through a transfer of ownership (gift or inheritance) or by purchasing it rather than by founding it on their own in the traditional manner.[20] Similarly, nearly 8 million people (~36 percent of entrepreneurs) have previously owned a different business or considered themselves self-employed before their current venture.[21]

As Millennials consider starting businesses, they are faced with a changing nature of entrepreneurship, but also one that is perhaps not quite so tech or youth focused as the popular narrative might describe. In this section we covered just a few of the myths and misconceptions about contemporary entrepreneurship. Understanding possible explanations for the decline in entrepreneurship, especially among young adults, must start with accurate information. One way to better understand the real story of entrepreneurs and entrepreneurship in 2016 is to tackle important questions with new and innovative approaches.

I. WHO ARE COLLEGE-EDUCATED ENTREPRENEURS?

Having discussed some of the ways entrepreneurship has changed in the last section, the next two

About the Data

The U.S. Department of Education's Baccalaureate and Beyond (B&B) survey provides researchers a unique opportunity to learn more about college-educated entrepreneurs. B&B surveyed students receiving their Bachelor's degree in 2008 and followed the same cohort for four years, until 2012, to measure their outcomes. The survey measured students on topics including whether or not they returned to school within four years, whether they moved out of state, their experiences in the labor market, and their progress in repaying their student loans. Because of the broad topics that the survey covers, and the unique longitudinal link between education and workforce experiences, this data set allows us to explore the traits of young, college-educated entrepreneurs.

In this analysis, we use the B&B 08/12 survey to specifically measure the outcomes for young people between 18 and 34 years old in 2009 that graduated from a four-year college or university in the prior year. In order to get specific information about self-employment, the survey asks those that had been employed between 2008 and 2012 about whether or not they were self-employed or not (i.e. traditionally employed) in 2012.

Our analysis of young adult entrepreneurship is limited by the fact that B&B 08/12 only surveys individuals that have graduated with a four-year degree and only extends four years after graduation. Since we know that

entrepreneurship increases with age, this likely means we are missing some older Millennials that wait more than four years to start their business. Additionally, the survey does not ask students directly about business creation, leaving self-employment as the best available proxy for entrepreneurship. Another limitation of using self-employment as our indicator of entrepreneurship is that it does not allow designation of the new and growing class of independent contractors or people that buy or inherit businesses against more traditional entrepreneurs that start their own businesses.

Furthermore, we simply correlate multiple variables to better understand the current conditions of young college graduates. While this knowledge can inform decision-making, readers should not conflate our analysis as attributing causal relationships.

sections analyze data to provide a profile of young, college-educated entrepreneurs[22] and then explore the relationship between student loan debt and entrepreneurship (see callout box for more about the data we used). Our findings reveal that young adult entrepreneurs have diverse racial and socioeconomic backgrounds and experiences in college and the workforce, but also experience diverse outcomes.

Entrepreneurs come from diverse backgrounds

Young, self-employed college graduates are a fairly demographically diverse group. Slightly more than half of young entrepreneurs are women, more than a quarter are minorities, and more than a quarter are either immigrants or the children of immigrants. Young entrepreneurs also come from diverse economic backgrounds and are more likely to come from either relatively rich or poor backgrounds than from the middle class:

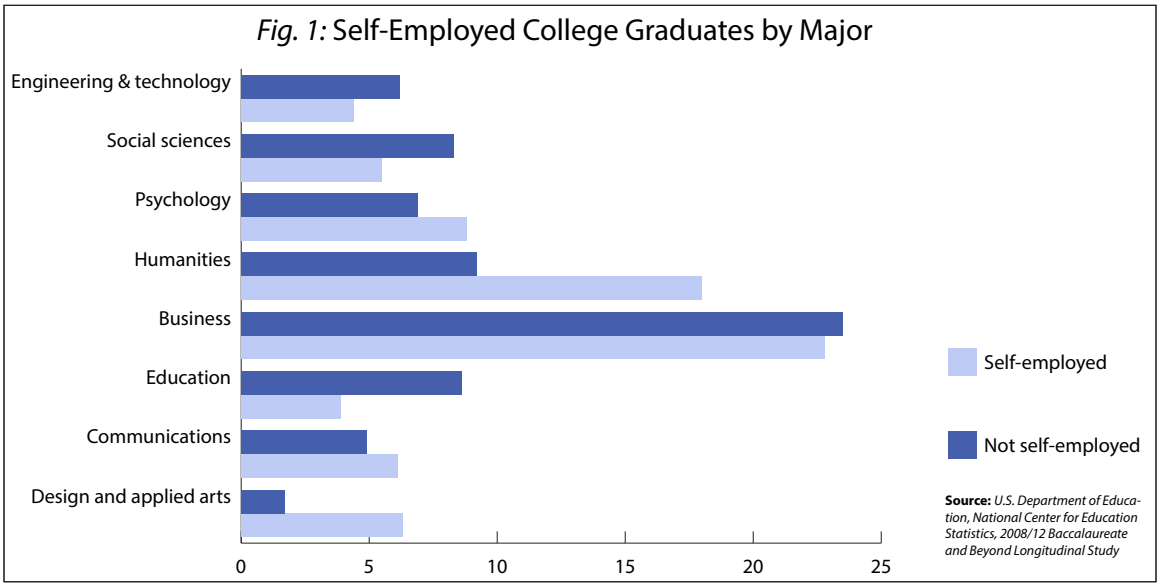
- Young self-employed adults are 50.5 % female and 49.5% male.
- Among entrepreneurs in our sample, 74% are white, 7% are Black, 7% are Hispanic or Latino, and 7% are Asian. While this represents greater racial and ethnic diversity than the popular misconception, more still must be done to ensure more equal representation among entrepreneurs from communities of color.[23]
- Over a quarter of young self-employed adults are immigrants or the children of immigrants.
- Young, self-employed adults less likely to come from middle income families than from families with incomes in the bottom or top 25% of average incomes.

Entrepreneurs have diverse educational experiences

Silicon Valley may come to mind when one thinks of a young entrepreneur, but college-educated young entrepreneurs are not all computer science or business majors educated at private universities. In fact, over 61 percent of young entrepreneurs attended public colleges and universities for their four-year undergraduate education. However, young entrepreneurs are disproportionately more likely to have attended private schools than their traditionally employed peers. More than 35 percent of entrepreneurs attended private colleges and universities for their undergraduate compared to 32 percent of those later traditionally employed, or employed by someone other than themselves.

While business is still the most popular major for young entrepreneurs, with nearly a quarter of young entrepreneurs enrolled, the next three popular majors among entrepreneurs were humanities, psychology, and design and applied arts (e.g. photography, fashion design, theater, graphic design, etc.) Those with an undergraduate degree in the social sciences, engineering, and education were least likely to go on to become entrepreneurs.

After graduation (i.e., four years later), young entrepreneurs pursued and attained vocational or technical certifications more often than peers who were not entrepreneurs and were more than twice as likely to pursue the doctoral-level degrees. That said, young entrepreneurs were less likely to complete a master's degree, with just under 24 percent attaining, than their traditionally employed peers, of whom 38 percent attained a masters.



Entrepreneurs have diverse careers

As was discussed earlier in this report, not all young entrepreneurs are building apps or starting tech companies. In fact, most young entrepreneurs work as artists, designers, business managers, personal care professions, or in sales. Additionally, they are less likely than their traditionally employed peers to work in non-managerial business occupations, including roles such as secretaries and legal support.

Table 1: Primary job: Related to bachelor's degree major (2012)

	Not Related	Somewhat Related	Closely Related
Not self-employed	22.8%	33.7%	43.5%
Self-employed	29.9%	37.4%	32.7%

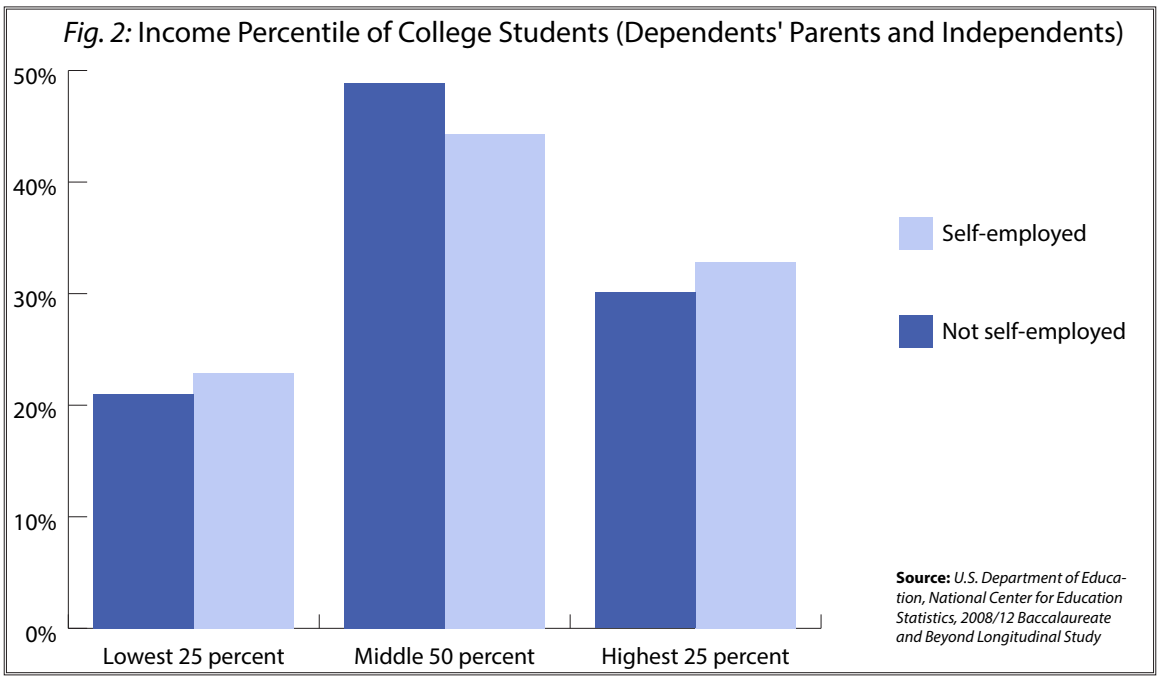
Source: U.S. Department of Education, National Center for Education Statistics, 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

Young entrepreneurs also tend to be work in fields not closely related to their undergraduate degree than peers. Thirty percent of these young adults reported working in a field unrelated to their undergraduate degree, while only 23 percent of their peers said the same. In addition to more frequently venturing outside their field of study, entrepreneurs were nearly twice as likely to have two or more jobs than their peers (11 percent versus 6 percent, respectively).

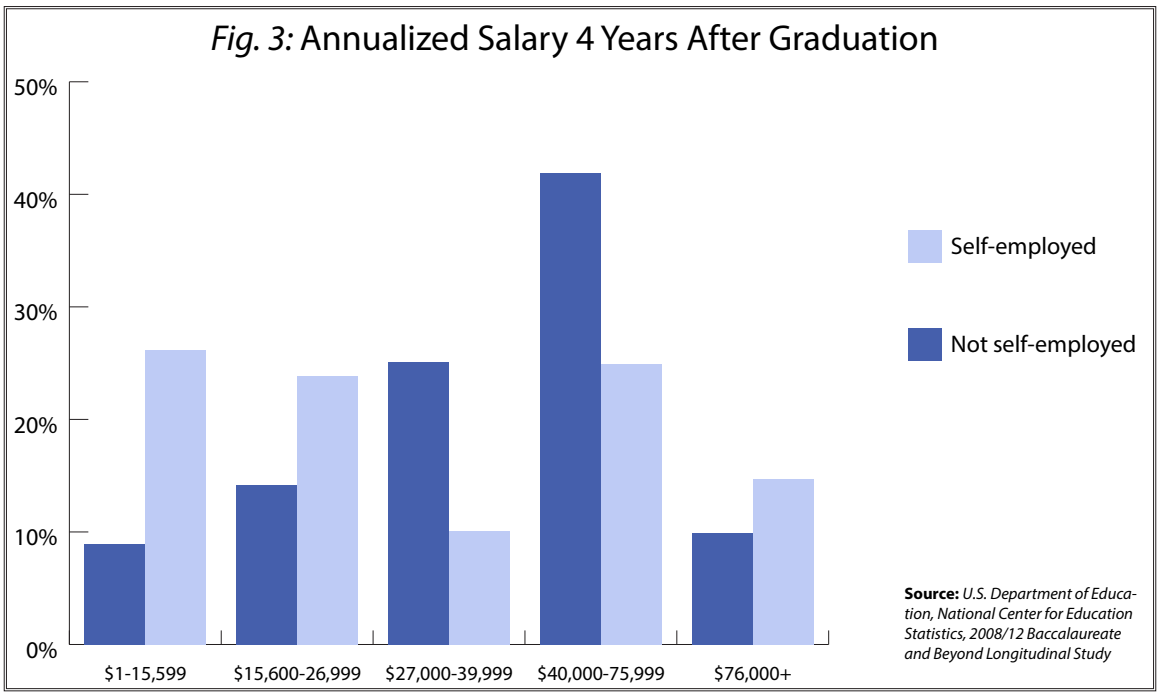
Entrepreneurs earn incomes at the extremes

Finally, not all young entrepreneurs come from financially secure families or generate high incomes from

their entrepreneurial ventures. In fact, young entrepreneurs are more likely to come from families with incomes in the lowest or highest quartiles than to come from middle-income families and to earn less than the average traditionally employed young adult.



Once in the workforce, young entrepreneurs report an average income of $36,400 from their primary job compared to their peers making an average of just over $44,000. However, simply relying on average incomes to understand the differences between young entrepreneurs and their peers obscures a more complicated story. In addition to having lower income from their primary jobs, self-employed young adults were far more likely than their peers to have primary job incomes at the extremes. Not only do young entrepreneurs more often make less than $27,000, but they are more than three times as likely to have



incomes below $16,000 than their peers. However, young entrepreneurs were also more likely than their traditionally employed peers to earn more than $76,000. Self-employed young adults are also more likely to have a second job than their peers.

This profile of young entrepreneurs shows that the group is much more diverse than the common narrative suggest. Understanding the actual academic backgrounds, career choices, and economic circumstances of young entrepreneurs is important for researchers and policymakers who try to figure out whether student loan debt is influencing their entrepreneurial decision making.
The final section of the paper will examine the potential link between rising student debt and declining young adult entrepreneurship.

II. ARE RISING STUDENT LOAN DEBT AND FALLING ENTREPRENEURSHIP CONNECTED?

In previous sections we addressed the myths surrounding young entrepreneurs and built a more accurate profile of who they are and their academic, career and financial experiences. In this final section we examine recent research on the relationship between student loan debt and entrepreneurship and then explore what further trends our data analysis reveals. In order to aid our examination of college-educated young entrepreneurs, we first summarize previous research that guided our exploration of the relationship between student debt and entrepreneurship. Then, we look at the correlation between student loan debt levels and entrepreneurship, and because those data only tell part of the story, we also examined young adults' perceptions of debt's impact on relevant parts of their lives.

Previous Research

In response to growing interest on the topic, a recent Kauffman Foundation paper authored by Sandy Baum, an expert on student loan debt at the Urban Institute, outlined a student loan debt and entrepreneurship research agenda.[24] In the paper Baum presented a theoretical framework on how student debt might affect entrepreneurship:

- Positively- student debt is the result of an investment in human capital through college education and allows students to generate more fruitful ideas, learn the skills necessary to start a successful business, and connect entrepreneurs to like-minded partners, or;
- Negatively- student debt, which is not dischargeable through bankruptcy, causes a dependence on their current income in order to make loan payments and could limit their access to additional credit and make them less likely to take additional risks concerning their finances.[25]

Two primary papers have contributed to the discussion since the Kauffman Foundation and Baum elevated the issue. Both papers found a negative correlation between the amount of student loan debt a person had and their likelihood of being an entrepreneur, especially for specific groups of entrepreneurs. The analysis by Ambrose, et. al., found that small businesses with less than four employees were the most impacted by student loan debt and that student loan debt had a greater impact on reducing entrepreneurship than other types of debt.[26] Krishnan and Wang's analysis identified that the negative effects of student debt on entrepreneurship were strongest on young adults and those trying to start businesses in technology.[27] For more information about the two papers, see the box at the end of this report.

Our analysis revealed similar results to those in the Ambrose et. al. and Krishnan and Wang reports. We found that, for most college-educated entrepreneurs, as the amount of student loans borrowed increases, entrepreneurship decreases. Moreover, our analysis revealed that entrepreneurs often borrowed loan amounts at the extremes, either very high or very low amounts, potentially supporting Baum's dual theories. We also found that many college graduates believe that student loan debt impacted their career and economic outcomes.

The Impact of Student Loan Debt on Small Business Formation by Ambrose, Cordell, and Ma's paper for the Federal Reserve Bank of Philadelphia examines student debt holdings and business formation at the county level. The authors highlight the importance of an entrepreneur's personal debt capacity in financing a startup business and the impact that non-dischargeable student loans have on entrepreneurs' ability to take on future debt.

By relating the U.S. Census Bureau's County Business Patterns database to the Federal Reserve Bank of New York Consumer Credit Panel/Equifax (FRBNY CPP/ Equifax) data set, Ambrose et. al. found a significant negative correlation between student loan debt in a county and small business formation for businesses with one to four employees.[28] Further they found that an increase in student debt resulted in fewer small businesses being created in a county. The negative correlation held at for larger new businesses as well. Additionally, counties with any increase in student debt saw fewer businesses of all sizes formed.[29]

Ambrose et. al. also compared the effects of student loan debt on entrepreneurship in comparison to all other kinds of personal debt. Their hypothesis was that growth in overall personal debt (i.e. taking out personal loans) contributes positively to the growth of firms with one to four employees, because the formation of small firms relies extensively on personal credit for startup capital. They found that student debt differs from overall consumer debt because it reduces the ability of an entrepreneur to access other forms of credit. This finding further supported their analysis that student debt decreases an individual's' ability to start a small business.

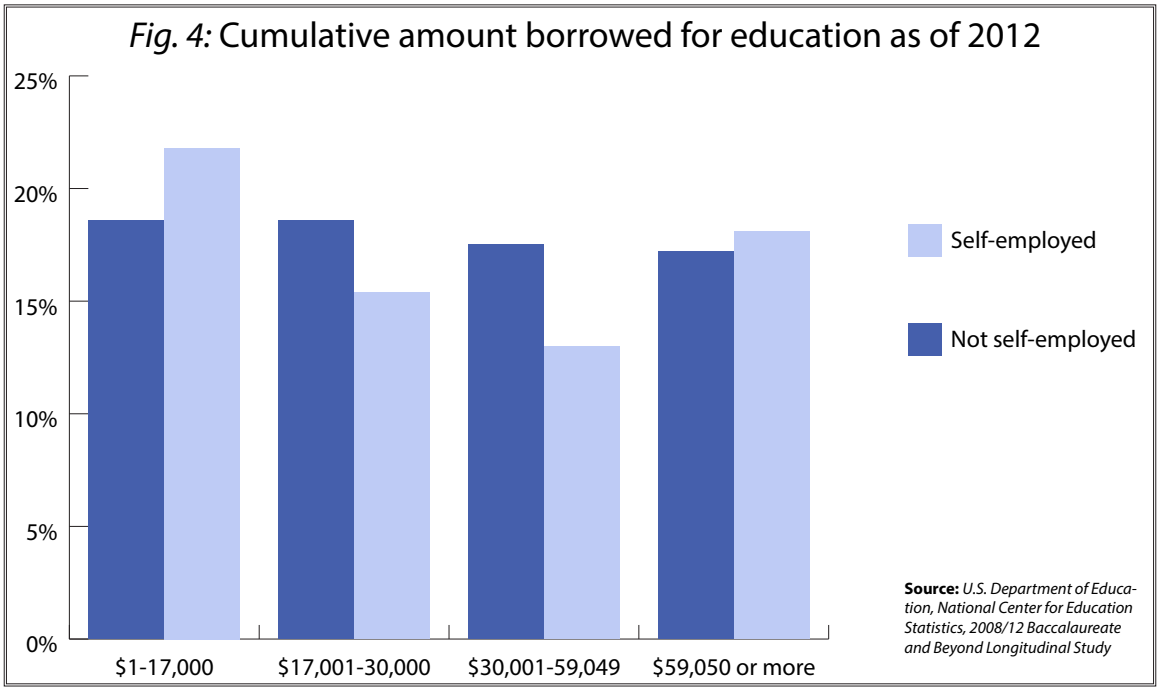
The major limitation to Ambrose et al.'s analysis is that because the business creation data was aggregated at the county level and not linked to consumer credit data, they were unable confidently say that entrepreneurs in high debt areas were different than those with student loan debt.

The Cost of Financing Education: Can Student Debt Hinder Entrepreneurship? by Krishnan and Wang studies the relationship between student loan debt and entrepreneurship at a more individual level by using household level data to provide better evidence of a causal relationship. Krishnan and Wang use the Federal Reserve's' Survey of Consumer Finances database, which measures both whether or not someone in a household had a student loan and started a business in a given year. The data is limited at the household level and does not specify which household member may have a student loan or may have started a business.

Through their analysis Krishnan and Wang found that student debt is negatively correlated with the likelihood of starting a business at the household level and that if a person does start a business, for every 1 percent increase in their student debt there is a 0.146 percent decrease in their business' income.[30] By completing a number of regression analyses, the authors were also able to find that the effects of student loans on entrepreneurship were strongest for younger cohorts and those trying to start businesses in the technology industry.[31] The Impact of Student Loan Debt on Small Business Formation by Ambrose, Cordell, and Ma's paper for the Federal Reserve Bank of Philadelphia examines student debt holdings and business formation at the county level. The authors highlight the importance of an entrepreneur's personal debt capacity in financing a startup business and the impact that non-dischargeable student loans have on entrepreneurs' ability to take on future debt.

Entrepreneurs borrow at the extremes

Young entrepreneurs are less likely to borrow student loans than their peers. Just over 68 percent of young entrepreneurs borrow student loans compared to more than 72 percent of traditionally employed young adults. Additionally, when young entrepreneurs borrow, they are most likely to borrow less than $17,000. Despite their general propensity to borrow less, 18 percent of self-employed young people end up borrowing more than $59,050, slightly more than the non-self employed.



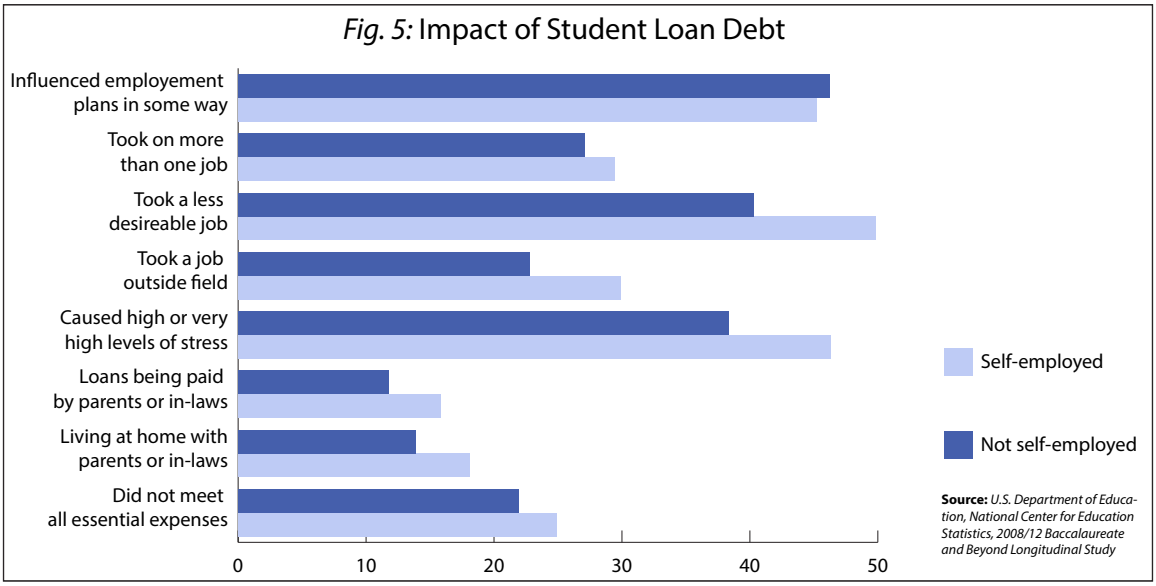
For the majority of young adults, student loan debt correlates with a reduced chance of entrepreneurship. Interestingly, the trend reverses for those with the highest levels of debt, and are actually more likely to be an entrepreneur than some with lower levels of debt. This break in the trend may occur because students with low levels of debt are able to take on the added risk of starting a business. And those with high levels of debt may have earned higher levels of education, giving them skills necessary to earn higher incomes to cover their debt payments. The reduced number of entrepreneurs emerging from the middle levels of debt imply student debt may be impacting entrepreneurship as they may have too much debt to take a risk but too little education to command higher incomes. Interestingly, this duality reflects Baum's theoretical framework of debt either incentivizing or suppressing entrepreneurship.

The median loan payment made four years after graduation by self-employed young adults is $80 per month, compared to the median payment of traditionally employed young adults which reaches $140 per month. For over one third of young entrepreneurs, their student loan payments took up less than 5 percent of their monthly income. Nearly 6 in 10 entrepreneurs spent less than 15 percent of their monthly income on paying back their loans. Comparatively, student loan payments represented at least 15 percent of the monthly income of nearly 7 in 10 of traditionally employed borrowers.

For most young entrepreneurs, student loan payments are a small percentage of their monthly income.

Yet, for some, payments toward student loan debt represent more than half of their monthly income -- this was true for over a quarter of entrepreneurs compared to just 13 percent of traditionally employed young adults.

The relatively high number of self-employed young adults paying the majority of their income toward their debts may also explain why some young entrepreneurs reported that having debt had impacted their employment plans. One of the reasons self-employed young people are taking on more than one job is the cost of a bachelor's degree and the often-related student loan debt. Four years after graduation, more than 29 percent of self-employed young people reported that they had to work more than one job due to their undergraduate loan debt.



This higher debt to income ratio among some young entrepreneurs may be due to the fact that, as stated above, they are more likely to pursue the vocational and technical degrees and also more than twice as likely to pursue the doctoral-level degrees and, as a result, accumulate more debt. Or, it could be that students with high levels of debt are able to leverage their familiarity with the financial system and are therefore comfortable taking on small business debt despite their high student debt balances.

In addition to having smaller loan balances than their traditionally employed peers, young entrepreneurs are more likely to have paid off their loans within four years after graduation. Their high rate of repayment suggests that they find ways to repay their students loan debt sooner than their traditionally employed peers, perhaps because of their lower on average level of borrowing or their propensity to take on multiple jobs.

Table 2: Status of Latest Federal Loan (2012)				
	In school or 6-month grace period	Repayment	Ever had loans in deferment or forbearance	Paid in full
Not self-employed	8.2%	36.3%	61.1%	14.0%
Yes, self employed	6.3%	29.9%	63.4%	18.6%

Source: U.S. Department of Education, National Center for Education Statistics, 2008/12 Baccalaureate and Beyond Longitudinal Study (B&B:08/12).

While young entrepreneurs appear to pay off their student loan debt sooner, self-employed young adults are also more likely than their peers to have had their loans in deferment or forbearance at some point in the four years prior. Even more unexpected is that they are also more likely to be not repaying their loans at all four years after graduation. The fact that young entrepreneurs are more likely to either have paid off their loans or are struggling to repay tells another story of extremes among young entrepreneurs. This opens up the possibility that student loan debt could be encouraging entrepreneurship for some and preventing it for others.

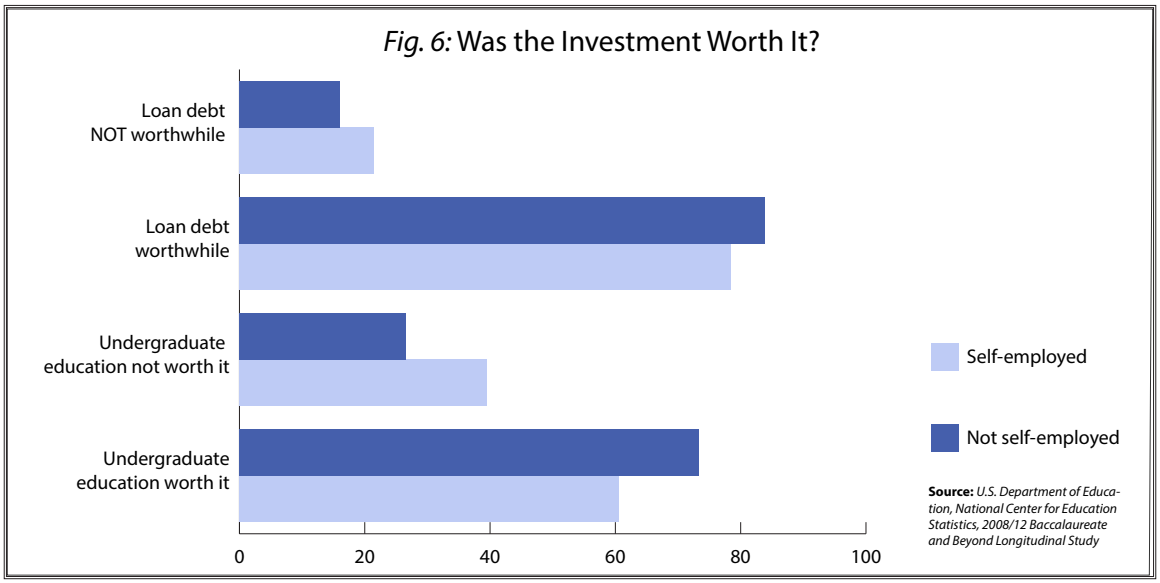
Perceptions and Reflections of Student Debt's Impact

Nearly half of self-employed young adults reported that they had taken less desirable jobs and 32 percent reported they had taken a job outside their field due to their debt. On top of debt impacting employment plans, more than 46 percent of young entrepreneurs reported that student loan debt caused high or very high levels of stress. In contrast, only 39 percent of traditionally employed young adults reported the same stress levels.

Perhaps adding to the stress, nearly 25 percent of self-employed young adults reported not being able to meet their essential expenses each month, compared with 22 percent of traditionally employed young adults. Further, more than 18 percent of young entrepreneurs were living with their parents or in-laws four years after graduation, 4 percentage points more than the number of traditionally employed young people living at home. Finally, nearly 16 percent of self-employed were having at least some of their student loans paid for by their family or friends, compared to 12 percent of traditionally employed.

Knowing all of these impacts, it is not surprising to find that more than 21 percent of self- employed young people did not believe that their student loan debt was a worthwhile investment. In contrast only 16 percent of traditionally employed young adults felt the same. However, despite their financial troubles and other impacts of their debts, the majority of self-employed and traditionally employed young adults still believed that their undergraduate education was worth the cost.

Clearly, young entrepreneurs believe that student loan debt is influencing their ability to pay their bills, take their ideal jobs, and causing them high levels of stress. If young people believe that student loan debt is impacting their lives, it follows that they would believe debt is preventing them from fulfilling their entrepreneurial goals.



CONCLUSION AND NEXT STEPS

In this brief we compared the conventional narrative of entrepreneurship to reality by examining existing research and a previously untapped data set to create a profile of entrepreneurs. In order to provide researchers and policymakers with information on relationship between entrepreneurship and student loan debt, we examined data that illuminates who young entrepreneurs really through their diverse backgrounds, academic experiences, career choices and economic circumstances.

Through a review of previous analyses about entrepreneurs, it was clear that the myth of the young, white male entrepreneur starting a technology company is a poor representation of entrepreneurship. While the rise of platforms like Uber, TaskRabbit, AirBnB, and Etsy gives individuals access to entrepreneurial opportunities that previously did not exist, there are still many entrepreneurs that are not using the Internet for their businesses. Despite debunking this myth and others, questions about the evolving nature of modern entrepreneurship, particularly for young people, still remain. Future research should focus on how we can more accurately define contemporary entrepreneurship and, given the rise of the gig-economy, identify potential self-identification problems associated with platform-based jobs.

After better defining entrepreneurship, we used the B&B 08/12 dataset to create an accurate profile of young, college educated entrepreneurs moving forward. Our analysis showed that young entrepreneurs come from diverse socio-demographic backgrounds and have diverse outcomes, many times falling into the outlying conditions at the extremes. Through examining their backgrounds as well as their economic and career outcomes, we determined that no one story can represent the experience of young entrepreneurs. Despite the new wealth of information gathered, more research can be done to better understand the backgrounds of entrepreneurs and what possible influences race, wealth and gender have on entrepreneurial outcomes. Likewise, further research is needed on the influences of educational attainment on entrepreneurialism. Our analysis shows that educational attainment is correlated with entrepreneurship in similar ways to student loan borrowing. Additionally, more research is necessary to understand why the road to repayment is so bumpy for entrepreneurs and whether participation in income-based repayment programs influence young entrepreneurs' repayment outcomes.

Finally, we examined recent research on the effects of student loan debt on entrepreneurialism and used new data to further demonstrate the links between student loan debt and entrepreneurship. Our analysis supported previous claims that student debt and entrepreneurship seem to be related in some way. However, the diverse backgrounds and academic and economic experiences opens up the possibility that there are other explanations (e.g. family wealth, educational attainment, etc.) for the recent decline in entrepreneurship. Further research is needed to better understand the relationship. At this point, it does not appear that a dataset with the necessary information exists. With that data researchers could also answer questions such as whether or not young people are planfully borrowing with goals of entrepreneurship in mind or if they are not and are actually deterred later by individual debt capacity. Understanding whether or not potential entrepreneurs are planful in their borrowing will also help policymakers create better policies or interventions to support young entrepreneurs.

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22. Retain as actual footnote: "B&B 08/12 does not ask students directly about business creation, leaving self-employment as the best available proxy for entrepreneurship. For that reason, we will refer to self-employed respondents as entrepreneurs interchangeably throughout the brief."

23. Retain as a footnote: "Of the college graduates surveyed and reported in B&B 08/12, 8.6 percent are black, 9.3 percent are Hispanic/Latino, and 5.8 percent are Asian. While Black and Hispanic/Latino entrepreneurs are underrepresented in the sample as a whole, this finding nevertheless contradicts the stereotypical iconography of entrepreneurs as white males."

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