# EARNINGS TRAJECTORIES OF YOUNG LOW-WAGE WORKERS IN THE UNITED STATES

An Undergraduate Research Scholars Thesis

by

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### **ABSTRACT**

Earnings Trajectories of Young Low-Wage Workers in the United States

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### **Literature Review**

Findings from previous economic mobility literature is best summed up by researchers trying to answer the following three questions: where are these types of workers coming from, where are they going, and how do public policies impact them. A portion of economic mobility literature examines where low-income earners are coming from (Cappellari, 2007; Gottschalk, 1982; Robert Bednarzik and Brett Theodos, 2006). Their findings suggest that low-income earners are typically less educated, non-white, and experience lower health. These studies examine the characteristics of low-income earners, and it is likely that these same characteristics make up the low-wage workers that this project focuses on. Moreover, Mark Stewart attempted to answer the question of where low-wage workers come from by looking at previous work experience. Stewart (2007) concluded that low-wage employment is found to have almost as large of an adverse effect on future earnings as unemployment; which is to say that present low-wage work increases the likelihood of low-wage work in the future. Ultimately suggesting a level of permanence in low-wage work.

Stewart's work hints at the question of where low-wage workers are going. Similarly, Bednarzik and Theodos (2006) concluded that low-wage workers remain in low-wage jobs

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because higher paying jobs are not available, discrimination exists, or workers do not qualify for higher pay. Additionally, their work suggests low-wage workers will eventually fall into one of two groups. A group that experience upwards wage mobility, and a group that stagnates or drops out of the workforce. A key indicator for which group a low-wage individual will fall into is their tenure in a low-wage job. The longer an individual is working in a low-wage job, the more likely his/her career creeps towards stagnation rather than upwards mobility. Work by Ralph Smith and Bruce Vavrichek (1992) similarly distinguished two groups of low wage individuals, and concluded that low-wage workers that were non-white, less educated, and worked part-time rather than full time were significantly less likely than others to experience wage growth. These findings resonate with Richard Dickens' (2000) work that suggests individuals at the bottom of the wage distribution are just as likely to drop out of the work force as they are to experience wage growth. Moreover, Dickens concluded that low-wage earners are worse off in terms of mobility since the 2000s than they were in 1980s, which suggests wage growth prospects are becoming worse over recent years. Ultimately, when researchers ask where low-wage workers are going, the prospects appear dim.

The last area of interest from previous research is the effect of policies. Carolyn Heinrich (2007) examined the role of temporary help employment on low-wage worker advancement, and concluded that employment assistance can help low-wage individuals transition to better jobs. However, those who do not move out of temporary jobs face extremely poor prospects. Again, non-whites are more likely to fall in the latter. Furthermore, the role of minimum wage laws has recently been tied into wage mobility. In a study examining the increase in Seattle's minimum wage, Ekaterina Jardim (2018) found that the entirety of gains from a higher minimum wage fell on more experienced workers. In other words, a low-wage worker with little experience does not

improve overall earnings whatsoever with an increase in minimum wage, they just work a few hours less each week. On the other hand, no workers experienced a decline in likelihood of being employed. Overall, previous work suggests that regardless of the mechanisms of a policy, the non-white and lowest skilled low-wage workers will rarely be any better off, while a proportion of low-wage workers will experience positive gains.

In summary, researchers interested in solving economic mobility problems want to know where certain types of people are coming from, where they are going, and how policies impact that trajectory. This project will dive into two of those questions. First, it will look at where low-wage workers are coming from, and intends to build off the baseline demographics of low-wage workers. Additionally, it will examine the trajectory of where low-wage workers expect to go, with an in in-depth look at the probabilities of an outcome conditioned on specific demographics and variables. The contribution to research of this project is to use a diverse data set that connects individuals to their demographics, earnings and work history, in order to develop a more clear picture of what is happening to the earnings over time for young low-wage workers in the United States.

#### **Thesis Statement**

This project examines individual's earnings, demographics, and work history in order to develop and understand the earnings trajectory of young low-wage workers in the United States.

#### **Theoretical Framework**

Economic theory suggests that human capital is the best way to increase an individual's earnings. Human capital can be obtained through work experience, learning on the job, education, or specialized training. In theory, more human capital leads to greater earnings. With that in mind, this project sets out to examine the young low-wage cohort in the United States.

Typically, young low-wage workers are also the lowest earners in the United States. Perhaps this is because they have lower human capital, or is it because they get trapped in a permanence of low-wage work. By analyzing the economic behavior and demographics of low-wage workers, this project strives to better describe the earnings trajectory of young low-wage workers in the United States.

### **Project Description**

This project examines the earnings trajectories of young low-wage workers in the United States. The data come from the SIPP Synthetic Beta (SSB), which links individuals to their wage history, work history, education history, and other person-level variables. The initial goal of this project is to explain the earnings trajectories of young low-wage workers conditioned on various demographics and earnings conditions, with an end goal of identifying the drivers of mobility for these types of people. For instance, do job industry, spousal earnings, or workforce behavior explain why some individuals with similar educations and demographics earn more or less than others over time? Identifying these drivers of mobility for young low-wage workers will help workers escape their current low-wage work, as well as explain the growing spread in earnings percentiles. The first step of this project is to find an efficient measure of young low-wage workers, such as earnings less than \$10 an hour at a certain age, or earning within \$1 of the minimum wage. After a reasonable measure is established, a variety of person-level characteristics provided by the SSB will be used to measure and examine the earnings trajectories. Overall, this project takes an in-depth look at the expected trajectory of earnings for young low-wage workers, given certain demographics and economic behaviors.

# **ACKNOWLEDGEMENTS**

I would like to formally thank Dr. Jonathan Meer for giving me the opportunity to dive into an interesting research topic, as well as giving me real responsibilities. Additionally, I would like to thank Joshua Witter for all of endless help and tidbits of advice throughout the project, as well as quickly getting me on board with all the technical details this project utilized.

Thanks also go to my friends and everyone in the department of Economics at Texas A&M. It is a blessing to be excited to go to class and learn more about the field.

# **KEY WORDS**

HS High School

HS Dropouts Identifier for High School dropouts

HS Degree Identifier for High School degree holders

### **INTRODUCTION**

The expectation of future earnings is a key determinant of labor force participation within an economy. Workers expecting greater earnings down the road are more likely to continue to work, whereas those facing negative prospects are motivated out of the work force. With that in mind, this project focuses on the earnings trajectories of young low-wage workers. It will emphasize the prospective growth, loss, or stagnation in earnings that a young low-wage worker can expect to earn, given a variety of demographics. For instance, this paper answers the question of, "what can an eighteen year old high school dropout currently earning less than \$10 an hour expect their annual earnings to look like over time?"

There are two distinctions used frequently in this paper that are worth familiarizing. First, the overarching aspect of this paper examines the earnings trajectory of various types of workers. Earnings trajectory means what an individual can expect their annual earnings to be at a certain age. Second, the baseline of many of these earnings trajectories is the wage of a worker. Since the goal of this project is to examine the earnings trajectories of young low-wage workers, it is important to understand that distinction. Previous literature typically focuses on earnings trajectories based on income, whereas this paper uses wages as the baseline. The implementation of wages rather than income provide a clearer image of the type of work people do. For instance, a paper using income cannot identify the wage of a worker with an annual income of \$50,000. Perhaps that worker receives a modest wage and works all year, or maybe she works one month and receives a high wage. The identification of wages allow for a more in-depth look at the types of workers and their potential earnings trajectories.

### **Data and Methodology**

This study uses the SIPP Synthetic Beta (SSB), which allows researchers to link the Survey of Income and Program Participation (SIPP) to earnings data from the Social Security Administration and IRS. In more technical terms, the SSB creates a partially synthetic Census Bureau data set that does not directly identify unique individuals, but does create synthetic information that is nearly perfectly accurate. In other words, the SSB synthesizes data in a way that allows researchers to use highly accurate census data. The complete data set available to researchers, and used in this study, is referred to as the SIPP Gold Standard File. Overall the SIPP GSF connects relevant micro variables from the SIPP to administrative earnings data and program benefits of individuals. Ultimately, the resulting data set paints a picture of an individual's lifetime earnings connected to their demographic information and work history.

A relevant dimension of this paper is the availability of wages. Wages are only observed in the SIPP, which provides four years of data. Once the SIPP is linked to earnings, the data set essentially provides 4 years of detailed wage and work information, alongside that individual's earnings, but not wages, for all the years they were not in the SIPP.

Another important aspect of the data is the drop in observations as age increases. This is expected, and is due to the panel nature of data. For instance, an eighteen year old surveyed in the SIPP in 2008 has not yet reached the age of 40, so there is no observation available for that individual at that age. Intuitively, this means that there are less observations for older ages.

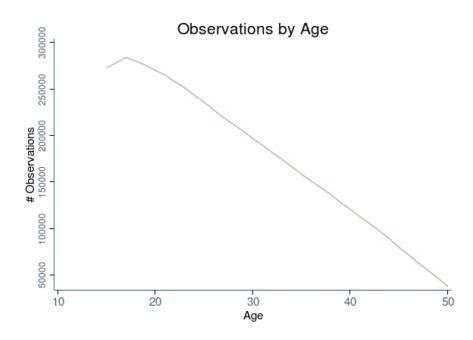


Figure 1. Observations by Age

Figure 1 shows this steady decrease in observations. Since we have less data at older ages, the estimates of earnings trajectories at these ages will not be as accurate as the estimates of the earnings at lower ages. However, this is not a major concern since the paper is more focused on the separation in earnings trajectories at young ages, for which there are plenty of observations.

Another context worth mentioning is how this paper measures numerical outcomes. All wages and earnings are adjusted to the 2014 US dollar. Additionally, an individual's annual wage is determined as the maximum wage earned during that year. For instance, if an individual had a wage of \$8.25 in August, \$9.00 in October, and \$9.25 in November, we consider their annual wage to be \$9.25.

Ultimately, this project uses those wages to identify young low-wage workers in the data. We are defining young as the ages between 18 and 22. Therefore, we essentially focus on 18 to 22 year-olds that are in the SIPP, and then use their available wages to identify them as a low-

wage worker. From there, we use the rest of the person-level data to plot out their overall earnings trajectories.

## **CHAPTER I**

### **OVERALL TRAJECTORIES**

The foundational motivation of this paper is the variation in earnings across the population. There is a clear difference between the earnings at the 90<sup>th</sup> percentile compared to the earnings at the 10<sup>th</sup> percentile. A relevant measure of this difference is seen through the comparison of the spread of earnings, conditioned on educational categories. Figure 2 displays the stark differences in earnings across high school degree holders, high school dropouts, individuals with some college, and college degree holders.

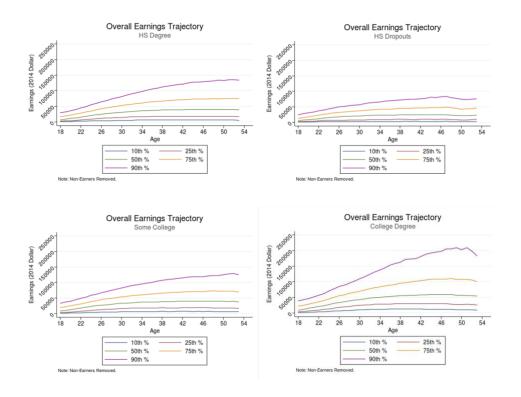


Figure 2: Earnings Trajectories Conditioned on Education

Figure 2 displays the clear differences in the spread of earnings, and how it significantly varies across education. High school dropouts experience a much tighter range of earnings, whereas college degree holders experience a significant spread in what they can expect to earn.

Intuitively, this makes sense. College degree holders are considered more qualified, and therefore have a higher potential ceiling of earnings compared to others without a college degree. The interesting aspect of Figure 2 is the obvious disadvantage that high school dropouts have in terms of their earnings ceiling. The 90<sup>th</sup> percentile of a high school dropout is not expected to reach \$100,000, whereas a 90<sup>th</sup> percentile of a high school degree holder can expect to get close to 150,000 as they get older. Additionally, the spread is noticeable between a high school degree holder and a high school dropout. Keep in mind that those classified as a high school degree holder do not have a college degree or some college. These educational categories are mutually exclusive groups, so an individual can only belong in one of them. That spread between high school degree holders and dropouts confirms that a high school degree has substantial signaling compared to a high school dropout. Ultimately, the gains of education are not a new topic. Figure 2 is meant to set the tone for the disparity in earnings throughout the population, and it demonstrates the fact that high school dropouts and high school degree holders are at a significant disadvantage in terms of earnings mobility.

### **Workforce Behavior**

The next relevant factor in earnings mobility is understanding the regression of low-wage workers as they grow older. For instance, if 30% of dropouts at age 18 are considered low-wage, and if at age 40 there are still 30% earnings a low-wage, then we can conclude there is stagnation in the progression of wages an individual gets older. Ideally, we expect to see the proportion of the population in a low-wage job decrease in each age cohort, because this would imply that workers are gaining skills on the job, and are escaping low-wage work.

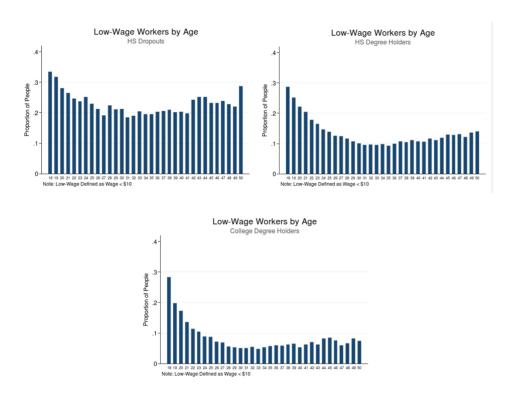


Figure 3: Low-Wage Workers by Age

Figure 3 displays the proportion of low-wage workers by age, in which low-wage is defined as earning a wage less than \$10 per hour. As expected, dropouts are far more likely to engage in low-wage work. More importantly, dropouts have a relative stagnation in the graph, which means they have trouble escaping the low-wage workforce. While less than 10% of college degree holders expect to earn a low-wage by age 24, and 10 to 20% of high school degree holders expect a low-wage after age 22, the dropouts consistently have 20 to 30% of their workers in a low-wage job. Overall, Figure 3 paints a picture that dropouts face far more difficult challenges in escaping the low-wage work they start at a young age.

Quarters worked is a useful determinant of annual earnings. For example, an individual with 4 quarters worked will be expected to earn more than an individual only working 1 quarter during the year. In the context of escaping low-wage work, an individual that works all four quarters may progress out of a low-wage job more quickly than an individual that is sporadically

working. Consistent work provides a better foundation of gaining more human capital, which in turn leads to more earnings, so it is beneficial to understand work behavior of our population.

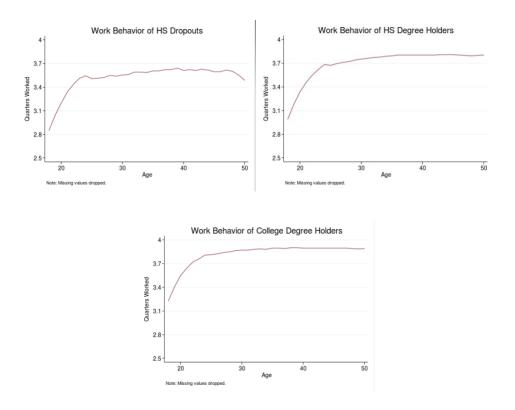


Figure 4: Quarters Worked Conditioned On Education.

Again, dropouts are worse off than degree holders in terms of quarters worked. However, dropouts appear to be working full time at around 3.5 quarters in their prime working years.

Overall, there is not an immediately noticeable difference in workforce behavior among educational levels. Each group faces increasing quarters as they enter their prime working years, in which they begin to stagnate. Figure 4 seems to say that quarters worked do not completely drive the large separation in earnings between educational categories. Instead, lower wages derived from a variety of other factors likely drive the earnings gaps.

### **CHAPTER II**

### WHERE YOUNG LOW-WAGE WORKERS ARE GOING

The first order of business in understanding the earnings trajectories of young low-wage workers is to define what a young low-wage worker is. Additionally, it is useful to identify individuals with the potential of becoming low-wage workers. This paper has defined a young low-wage worker in two ways that are worth examination. The first is earning a wage of less than \$10 (2014 USD) at the age of 18, and the second is earning a wage is the bottom quartile of age 18 wage-earners. These two measures were chosen since they create a clear picture of what each individual in the group is earning. A wage less than \$10 provides a concrete limit to define low-wage work, whereas the latter measure answers the relevant question of, "what does a young person earning a wage in the bottom quartile amongst his/her peers expect to earn over time?" Furthermore, this paper will define a potential young low-wage workers as someone with zero earnings at age 18. Overall, each of these measures will be conditioned on HS dropouts and HS degree holders. When applied to the definitions described above, this project essentially answers the question of what does a young low-wage worker, or a potential low-wage worker, conditioned on their education level, expect to earn as the get older.

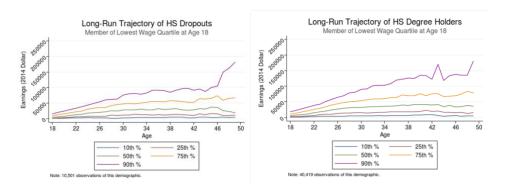


Figure 5: Low-Wage Defined as Member of Lowest Wage Quartile at Age 18

Figure 5 displays one definition of a low-wage workers. There are several details worth examining. First, the HS degree holders experience significantly more spread in their earnings, which in turn means they have greater mobility opportunities. Second, the lower percentiles do not see any significant growth in their earnings as they get older. Members of these percentiles are essentially stuck in a low-earnings environment, which can be explained by not working year round, lay-offs, or just a lack of marketable skills that lead to higher earnings. Ultimately, Figure 5 answers the first definition of a low-wage workers, which asks "what happens to an young individual earnings less than their peers (bottom quartile of wages)?" Unfortunately, the future seems dim. For HS dropouts and HS degree holders, nearly half of the people at a given age in that cohort will never reach \$50,000 a year. Moreover, only about 10% of individuals in these groups will ever surpass the \$100,000 per year earnings marker in any given year. HS Degree holders are somewhat better off in their early working years, but the difference between their earnings and HS dropouts has little significance since neither group is necessarily thriving in the labor market.

The other definition of a young low-wage worker examines individuals earning less than \$10 an hour at age 18. This measure provides a tangible cut-off for low-wage work, and this project considers this definition as the leading measure of low-wage work. Figure 6 reproduces Figure 5 from above, using this new definition to create the cohorts.

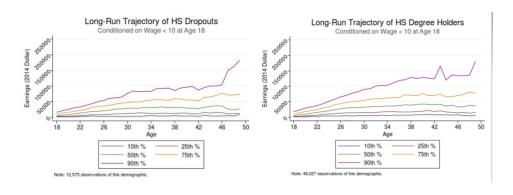


Figure 6: Low-Wage Defined as Wage < \$ 10

Figure 6 paints a similar picture to Figure 5, but utilizes more observations. We consider this measure of low-wage work a more accurate representation of long-run earnings due to the fact that is has more members in its group. In terms of earnings, the trajectories appear similar. Again, around 50% of both groups will never reach the \$50,000 mark in annual earnings at any given age over the long-run. Moreover, the top 10% have a significantly larger spread from the rest of the members of the cohort, especially as time increases. A relevant question is what is driving this growing gap between the top 10% of these cohorts and everyone else? To an extent, these people could have learned on the job more efficiently or have more marketable skills. In other words, there is likely a reason they experience growing separation.

Now that the long-run trajectories are set, it is beneficial to see if gender plays a role in what an individual can expect to earn.

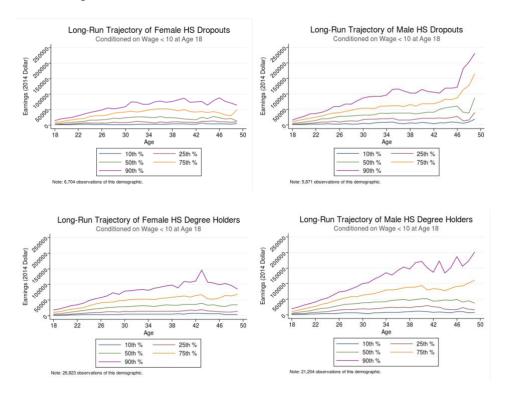


Figure 7: Gender Effects in the Long-Run

Figure 7 displays the strikingly large spread in male earnings compared to the smaller spread for females, all conditioned on education and earning a wage less than \$10 at age 18. It appears males mostly experience upwards earnings across all percentiles, whereas females stagnate and even drop. However, this is not a surprise. Females are more likely to leave the workforce to give birth or take care of a child. As expected, males are mostly driving the growth in earnings for this group.

Similarly, the same message holds true for the HS degree holders group. However, female HS degree holders are far more likely to become high earners. Interestingly, while no female dropouts reached \$100,000, 10% of female HS degree holders are reaching that mark by their mid-thirties. As a whole, female HS degree holders are far better off, and experience a healthy amount of growth in their early twenties, while female dropouts suffer from strict earnings mobility during those ages. Moreover, male HS degree holders are not substantially better off than male dropouts. In fact, only the 90<sup>th</sup> percentile of male HS degree holders appear to have greater earnings in their mid-twenties and thirties. The comparisons drawn from Figure 7 provides some interesting conclusions about young low-wage workers. First, males appear to drive the majority of earnings growth in these groups. More importantly though, females are far better off to get their high school degree, while a majority of males will not see any significant difference in earnings if they were to get their high school degree or not.

Figure 7 portrays long-run trajectories, which makes it difficult to see what exactly is happening at a young age. Figure 8 solves this by displaying the exact same image as above, but utilizing the short-run trajectories instead. The short-run context plays an important role in viewing how quickly the spread between the percentiles is growing at a young age. In other words, figure 8 answers the question of how quickly individuals of similar demographics are out-

earning their peers. Females of both dropouts and degree holders appear to have significantly similar trajectories throughout their mid-twenties, then female dropouts at the 90<sup>th</sup> percentile begin to significantly out-earn their female dropout counterparts. However, these similar young age trajectories seem to say that females don't recognize the benefits of completing their high school degree until they have been working for 8 to 10 years, in which they then to earn significantly more at the upper percentiles. Overall, this implies the majority of female dropouts hit a ceiling around the age of 30, which is confirmed by the long-run trajectories.

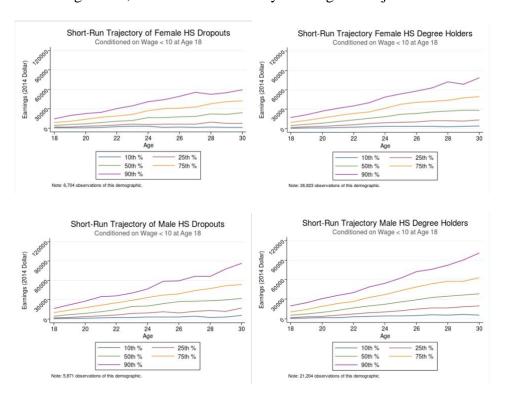


Figure 8: Gender Effects in the Short-Run

Males appear to experience the same route as females, except their earnings are a little bit higher across the ages. The bottom 25% of male dropouts do not see as much growth as that of degree holders, but the other 75% follow extremely similar upwards trajectories, where at around the age of 30 degree holders start to out-earn the dropouts. Additionally, around age 30 the top 25% of male degree holders are better off than the male dropouts, but dropouts close that gap

through their thirties. Overall, figures 7 and 8 suggest that there is little difference between dropouts and degree holders during young working ages, but around age 30 the degree begins to significantly pay off. Female degree holders at this time become significantly better off, while male degree holders see higher earnings at that time, but their dropout counterparts close that gap during their thirties. Ultimately, this suggest young low-wage females who want to maximize their earnings are better off getting a degree, perhaps because employers use the degree as a positive signal. On the other hand, male degree holders hold an initial advantage in their early thirties, but the gap is quickly closes, implying that actions in the workforce appear to pay off more than the signal of a degree for young male low-wage workers.

Up to this point, this project has used two measures to define and identify young low-wage workers. However, members of these previous groups hold a big advantage over other people, they are already working. Working at age 18 makes them likely to be better off relative to those with similar characteristics, but not working at that age. Therefore, this project wants to spot potential young low-wage workers. To do so, potential young low-wage workers are defined as individuals with earnings at age 19, but zero earnings at age 18. In simpler terms, this group of people are not working at age 18, but begin to work their next year. By not working at age 18, they are likely to enter low-wage jobs when they finally enter the workforce at age 19.

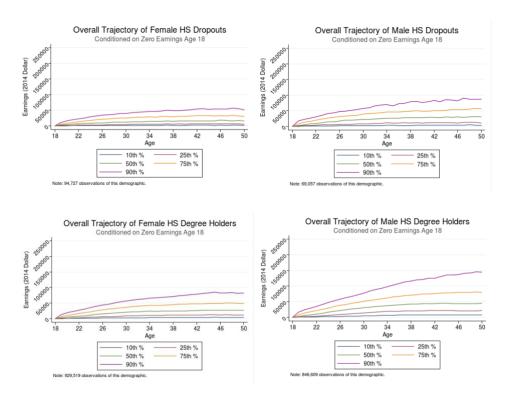
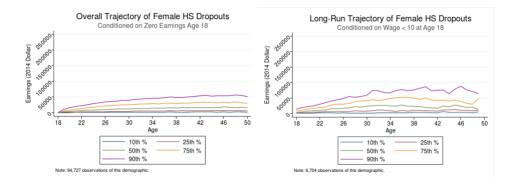


Figure 9: Potential Low-Wage Workers

Figure 9 displays the earnings trajectories of individuals with zero earnings at age 18, conditioned on their gender and education levels. At first glance, male and female dropouts have strikingly similar trajectories up to the 75<sup>th</sup> percentile. Moreover, in the late twenties and early thirties male dropouts at the 75<sup>th</sup> percentile continue to progress upwards while females of the same percentile begin to stagnate during that time. For degree holders, we see males are better off in their twenties than females, and continue to experience more upwards trajectory as they get older. This is not surprising, and was also seen in the groups with a wage less than \$10 at age 18. Again, female trajectories are likely to stagnate since they are leaving the workforce to give birth and take care of children, while males typically stay in the workforce. Females at the top of the earnings trajectory continue to see upward growth as they get older, and this is likely due to the fact they are staying in workforce.

Defining these potential young low-wage workers draws a surprising finding. People in this group have significantly lower earnings outcomes across all percentiles and ages, especially compared to their counterparts with similar backgrounds who began working at age 18. We can first explore this trend with females in Figure 10. The top 50<sup>th</sup> percentile of young low-wage female dropouts working at age 18 appear to earn more and have a longer period of upwards growth than the female dropouts not working at that age. The same difference is seen with female degree holders. To an extent, young low-wage females already working are a little bit better off than those not working, and that is seen through more upwards progression of earnings across all ages and percentiles in both educational categories. Figure 10 seems to say that females working at age 18 gain advantageous skills during that time that lead to greater earnings as they get older. However, females not working at age 18 may have a reason, whether that be teen pregnancy, lack of skill/motivation, or any other condition which then leads to less potential for earnings growth in the workforce. Ultimately, a female looking to maximize earnings as they get older should begin to work at age 18. The reason for this advantage can be due to valuable human capital gained during that working year, limited potential for high earnings for those not working at age 18, or perhaps a mix of both, or some other reason.



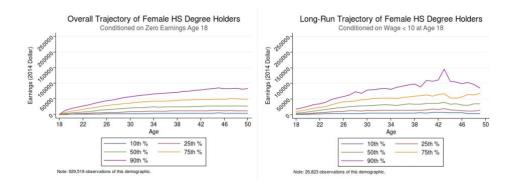


Figure 10: Female HS Dropouts & HS Degree Holders

This finding is further exaggerated for the male groups, especially among male dropouts. The majority of male dropouts that are low-wage workers at age 18 experience a significant opportunity for upwards progression in earnings, while the majority of male dropouts not working at age 18 already face stagnated earnings by their late twenties. This trend is less obvious for male degree holders, in which the majorities in both low-wage workers at 18 and non-earners at age 18 see upward trending earnings during their working years. Those working at age 18 have a little bit higher earnings, especially in their late twenties and early thirties, and their 90<sup>th</sup> percentile of earners have a higher ceiling, but for the most part the male degree holders are not as significantly worse off. Overall, the trajectories in figure 11 give evidence to the following. First, male dropouts not working at age 18 is either an extremely negative signal to employers or there are reasons individuals in this group are not likely to succeed in the workforce. Second, male degree holders working at age 18 are better off than those not working at age 18, but the gap in is covered relatively quickly, and all percentiles of these groups grow at relatively similar paces.

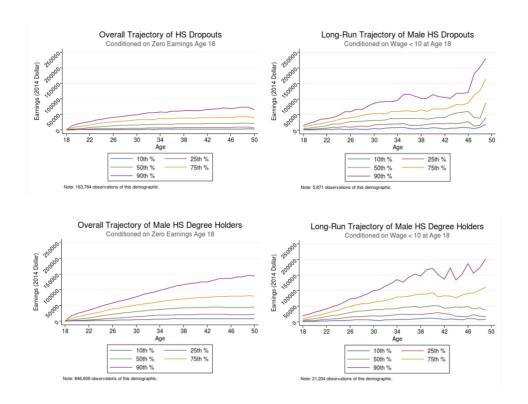


Figure 11: Male HS Dropouts & HS Degree Holders

In the end, identifying potential low-wage workers as zero earnings at Age 18 shows a critical element. Individuals not working at age 18 appear to have a negative reason for that decision, and that is proved when their long-run earnings trajectories are significantly lower than similar individuals who began working at age 18.

### CONCLUSION

As a whole, this project tackled the overall earnings trajectories of young low-wage workers. Intuitively, education is the leading factor in determining earnings. With that in mind, this project scoped in on HS dropouts and HS degree holders since they are most likely to make up the young low-wage workings population that will then go on to face severely lower earnings than individuals with more education. The SIPP Synthetic Beta provides access to person-level data that is then used define the young low-wage workers that make up this sample. There are two leading definitions for young low-wage workers. The first is having a wage in the bottom 25<sup>th</sup> percentile of 18 year-olds, in which we conditioned on HS dropouts and HS degree holders. Through this definition, the future earnings of the members of this cohort seem dim, in which nearly half of the individuals at a given age will not be earning \$50,000 annually. The other definition is having a wage less than \$10 at age 18. This cohort paints a similar picture to the first definition, but since it utilizes more observations it is considered the leading definition that then utilizes the effects of gender and short-run versus long-run outcomes. As expected, males across all cohorts drive the spread in earnings in the long-run. Additionally, males experienced longer upwards growth in earnings, but this is due to females dropping out of the workforce to give birth and childcare. An interesting find is that female HS degree holders are far better off than female HS dropouts, conditioned on having a wage less than \$10 at age 18. This implies that a female is significantly better off in terms of earnings to finish out her HS degree. On the other hand, the benefit of a HS degree over being a HS dropout is not as prevalent for males. In the early working ages they may experience a slightly higher level of earnings in ages, but that gap is quickly closed in the long-run by the male HS dropouts. Once the short-run is examined, we find

that both dropouts and degree holders for male and female young low-wage workers follow similar trajectories up into their thirties. The top 10% of female HS degree holders are earning more than the top 10% of female HS dropouts, but the remaining 90% follow nearly identical earnings paths. In other words, the majority of females will not experience the advantage of having a HS degree until their late twenties and early thirties, but by that point it may be too late if childcare is needed. As noted earlier, the male HS dropouts and HS degree holders that are young low-wage workers at age 18 face identical earnings trajectories in the short-run as well as the long-run, which again states that performance in the labor market is far more important than high school completion for young low-wage working males. After defining current young lowwage workers and plotting their earnings trajectories, the next step is to try and predict who may be a young low-wage worker. This project defined a potential young low-wage worker as a 19 year old that had zero earnings at age 18, conditioned on education and gender. The difference between working at age 18 versus age 19 in these groups in striking. Males and female HS dropouts and HS degree holders foregoing work until age 19 face significantly lower earnings trajectories over time. Perhaps this is due to a lack of important human capital that is gained through working at age 18, or because there is a negative labor force reason, such as teen pregnancy or lack of skills, that causes these individuals to delay entering the workforce. Overall, the earnings trajectories of young low-wage workers consistently tells several stories. First, regardless of education and gender, there is a separation in earnings which the top 10 to 25 percent continue to see upwards growth in earnings over time, while the rest stagnate by the midthirties. Second, the benefit of a HS degree for female young low-wage workers is significantly better than that of males. Lastly, young low-wage workers are best off when they enter the workforce earlier.

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