

Graduating during a recession: A literature review of the effects of recessions for college graduates

Javier Rodríguez S., Jared Colston, Zhixuan Wu, Zi Chen

Center for Research on College-Workforce Transitions (CCWT), University of Wisconsin Madison

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Introduction

The COVID-19 pandemic has caused a halt of the economy worldwide. The U.S. job market experienced an unprecedented downturn due to the pandemic-caused recession beginning in March 2020. As a consequence, thousands of jobs across industries now face wage cuts. The unemployment rate rose above 20% in April with a temporary layoff share close to 80% (Bartik, 2020; Cajner et al., 2020). The future of hundreds of thousands of college graduates transitioning from college to the labor market has thus become a matter of great concern for students, career advisors, higher education officials, and policy makers.

Research on the work trajectories of those who graduate during economic recessions can provide insights into how college graduates' lives are affected by finishing school and starting their working lives in the middle of a weak economy. Additionally, available evidence about what has taken place in previous recessions can inform potential strategies for students, administrators, and policy makers to cope with the economic uncertainty and career search obstacles caused by the pandemic.

In this literature review, we present a summary of the main findings from this body of research, aiming to contribute to the conversation about what students can expect and do as they start their professional lives in these difficult times.

Fast Facts

Mounting evidence shows that the macroeconomic context in which students graduate and enter the labor market matters: it not only determines the quality of the job that they get at first, but it can also generate long-lasting effects for their career development. College graduates that start their careers during a strong economy are more likely to find a good job that gets them started in a stable and successful professional

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career (Schwandt and von Wachter, 2019). Graduates that enter the job market during an economic recession often face worse prospects for their earnings, promotion opportunities and future employment (Oreopoulos et. al, 2012). Below, we list the key findings that resulted from this review:

- On average, a one percent increase in the rate of unemployment at the time of graduation leads to between two and four percent less in annual earnings in the first year out of college. In practice, individuals who enter the labor market in a recession, when the unemployment rate increases by 3-4 points, earn between six and sixteen percent less than their peers who graduate in a strong economy (Schwandt and von Wachter, 2019; Oreopoulos et al., 2012; Kahn, 2010; Altonji et al., 2016; Genda et al., 2010).
- Annual earnings losses in the first year out of college occur because individuals who graduate in a recession, in general, have a hard time finding full-time work. As the search for jobs takes longer for them, the total earnings they make in a year decreases. Another reason is that, on average, they receive lower hourly wages for their work. Recessions do not necessarily affect the ability of new labor market entrants to find a job right out of college.
- Despite these losses, college graduates perform much better than individuals without a college degree. The effects of unemployment at labor market entry on first-year earnings of college graduates are nearly half of those for workers with a high school degree or workers who have some college education but did not obtain a degree. All in all, college graduates are less affected by the circumstances of the economy at the onset of their careers (Schwandt and von Wachter, 2019).
- The negative effects of the unemployment rate at graduation usually disappear within 5-7 years. These effects usually dissipate within 3-5 years for students who graduate from majors with high expected returns, and can last for up to 10 years for students with degrees from lower return majors (Altonji et al., 2016).
- Effects dissipate because, within the first 4-5 years of work experience, graduates that start their careers in a weak economy switch to increasingly higher quality employers that pay better and are better matches for their level of skill. Then, along with economic recovery and through professional growth, college graduates continue to experience earnings increases (Oreopoulos et al., 2012).
- Postsecondary enrollment increases during economic recessions, in general. For recent college graduates, the likelihood of enrolling in graduate school increases during a recession (Foote and Grosz, 2020; Johnson, 2013).
- Regarding other outcomes, graduating in a recession has the effect of delaying marriage and having kids for men. This finding does not hold for women. In the long-run, asset building seems to not be affected by economic recessions (Kawauchi and Kondo, 2020; Maclean et al., 2016).
- Graduating in recessions may have effects over individuals' health, but causal relationships are difficult to establish. Some evidence suggests that increased unemployment has an accumulated effect on mortality and life expectancy, where reductions in life expectancy are observed for individuals that enter the labor market during weak economic conditions. A recession labor market entrant may also adopt unhealthy behaviors, such as smoking or drinking, but these associations remain to be further explored (Maclean, 2013; Hessel and Avendano, 2013).

Overview

A growing literature is concerned with the consequences of starting a career as a young adult in a weak economy. Comparing different cohorts of college graduates, studies find that those finishing school in periods of economic recessions –when unemployment is high and jobs are scarce– exhibit worse labor market indicators immediately after graduation and later in life, compared to graduates from prosperous years.

The most immediate effect of a weak economy on new graduates is self-evident. Graduates entering the job market in a recession find less jobs available to choose from, likely choose a job that is less than a perfect match for them, and/or accept a lower wage compared to what they would otherwise receive.

Recessions, however, do not last forever. Eventually, more jobs become available, and unlucky graduates who started their working lives at jobs that are not initially good matches for their level of skill can move to better positions that come with higher pay and more chances for upward mobility.¹ However, it is not clear whether these opportunities to move to better jobs are either available to all, or good enough to make up for the losses individuals incur during recessions.

In sum, while the immediate effects are clear, the long-term effects of graduating in a recession are less apparent. The literature reviewed here discusses the nature and magnitude of these short- and long-term effects, whether they affect all recession graduates equally, how exactly they are realized, and how this general source of socioeconomic inequality affects other aspects of young workers' lives.

This review is organized in five sections. In the **first section** we briefly describe our approach to searching and systematizing the literature. We also include a few preliminary notes about the overall approach that the literature takes, highlighting the general approach researchers adopt for the presentation of findings.

The **second section** dives into the effects of entering the labor market during an economic recession on young workers' earnings, wages and employment prospects. We describe what have been identified as the initial effects of the “shock” of starting a working career during times of high unemployment, the extent to which these effects dissipate after a few years of work experience, and how different individuals may experience different effects given their college major.

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¹ Looking at trajectories of young workers as they switch to increasingly better employers, Oreopoulos et al. (2012), for instance, define the quality of employers based on their firm size, median firm wage, and total amount spent on workers' compensation.

In the **third section** we review the consequences of graduating in a recession for other aspects of people's lives. We cover the effects of recessions on postsecondary school enrollment; on demographic trends in marriage, family formation, and asset building; and on individuals' health outcomes in midlife.

In the **fourth section** we briefly describe the nature and consequences of the Great Recession of 2007-09, a period of economic downturn that was particularly severe compared to previous recessions, and contrast the severity of the current 2020 recession caused by the COVID-19 pandemic with the Great Recession. We note that the consequences of these two recent periods of economic turmoil remain under scrutiny.

Taking stock of the findings reviewed, the **fifth and final section** discusses some practical implications of this research and highlights strategies worth considering for young workers entering the labor market as the global COVID-19 pandemic develops.

1. The Available Evidence on the Effects of Recessions for College Graduates

Conceptually, the study of the consequences of entering the labor market during a recession belongs to the more general study of hysteresis as it applies to unemployment dynamics in economics – that is, the study of how unemployment effects persist after the causes initially giving rise to those effects are removed (Clark and Summers, 1982). In this review we adopted a narrow view, focusing specifically on the shock of high unemployment at labor market entry, associated with recessions, for individuals who graduate from college.

Literature search and selection criteria

We conducted a literature search for academic papers specifically focusing on the relationship between economic recessions and observable outcomes for individuals in the domains of earnings, wages, employment, enrollment in postsecondary education, demographic trends in family formation, and health. Our approach to searching the literature involved a combination of systematic searches based on key terms using academic search engines and databases, and snowball searching where we included the most relevant references from papers previously identified. The academic databases that our search covered include the Web of Science, Project MUSE, Eric EBSCO and JSTOR. In addition to these databases, we targeted specific journals we believed would focus on recession outcomes for college graduates.

As a note on terminology, throughout this document we use terms that are consistent with those used in the literature. We use the terms “recession”, “economic downturn” and “bad economy” somewhat interchangeably, with specific mentions to rapid increases in unemployment whenever this clarification is needed. We started our search with these terms and identified a total of 13 relevant papers, pertaining to the effects of recessions in the United States on cohorts of college graduates since the 1980s. We expanded our search, keeping the following three criteria in mind, and identified 22 additional papers.

First, as recessions are, by definition, periods of rapid increases in the national unemployment rate and decreases in the population employment rate as identified, for instance, by the National Bureau of Economic Research (e.g. Hoynes et al., 2012), we extended our search in order to include key terms (e.g.

“high unemployment”, “economic contraction”) referring to macroeconomic conditions in the labor market in general.

Second, since the current review focuses on the effects of recessions on college graduates who predominantly experience the effects during transitions to the workforce, another criteria for our search included the notion of “labor market entry”, broadly considered equivalent to the time of college graduation in the literature. Although some of the reviewed papers investigated workers in general, we contextualize the findings pertaining to people graduating from college and entering the labor market, specifically.

Finally, we narrowed our search to studies conducted in the United States, dealing with recent economic cycles, and pertaining to U.S. college graduates. Although several international studies focusing on the recession effects on college graduates using cross-national samples or in countries other than the United States were also included in the present review, our analysis is primarily within the context of the U.S. higher education system, economy, and labor market.

Table 1. Effects of graduating in a recession: articles reviewed by type of outcome

Outcome	Number of articles
Earnings and wages	17
Employment, probability of full-time job	13
Postgraduate enrollment	8
Marriage, childbearing, asset building	5
Health outcomes	5

**Note: All papers addressing employment outcomes overlap with those addressing earnings losses.*

Methodological notes

A few preliminary notes about the overall methodological endeavor in this literature are in order. Research in this field is comparative in nature. Comparisons are established across time, between groups of people who graduate at different times during periods marked by different macroeconomic conditions. The demographic notion of “cohort” is central to this research agenda. Cohorts are analytical units for the study of social change and, as one foundational paper establishes, “successive cohorts are differentiated by the changing content of formal education, by peer-group socialization, and by idiosyncratic historical experience” (Ryder, 1965, pp 843).

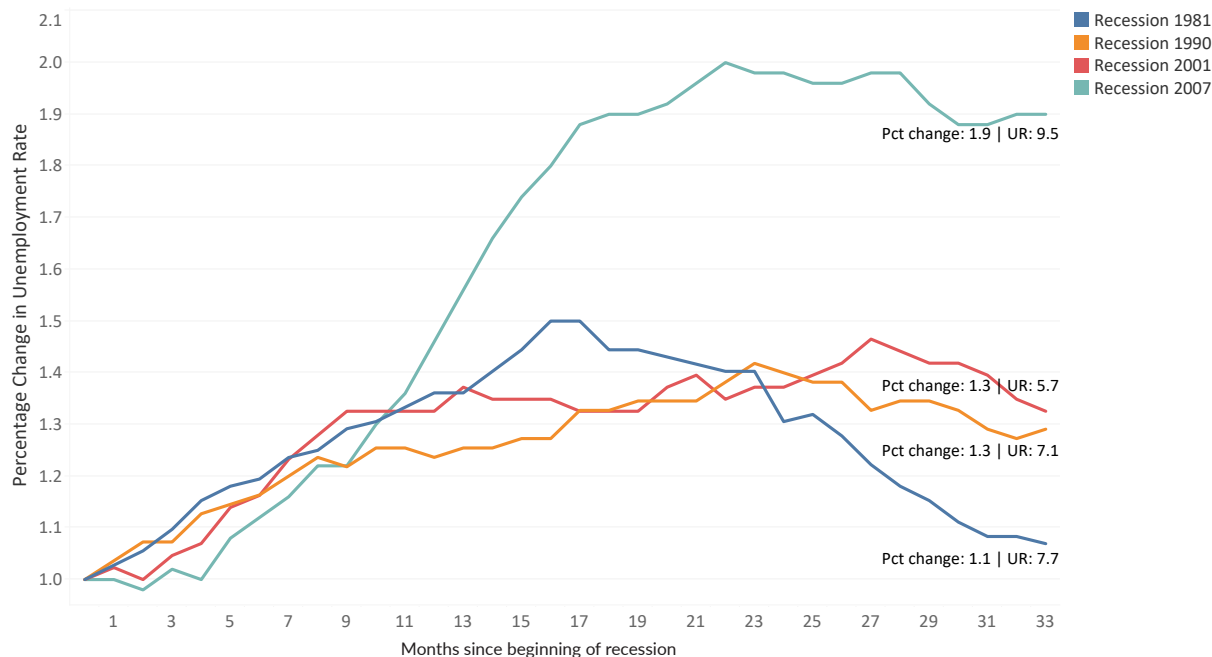
The core of this body of research is to establish differences in outcomes between cohorts that are otherwise similar, isolating the effect of the external shock caused by the macroeconomic conditions that they are exposed to when they start their working lives. In this sense, when the literature talks about “losses”, for example, in annual earnings, it means losses compared to what would have otherwise been expected considering the earnings of those who did not suffer the exogenous shock of being exposed to

high unemployment when they graduated and started working. We make this point clear throughout this review. Similarly, when the literature discusses how affected cohorts “catch up” with their counterparts, it refers to how the negative effects of the initial shock dissipate over time and the earnings or employment trajectory of recession graduates become similar to that of the more fortunate individuals who graduated in better macroeconomic circumstances.

While the short-term effects of recessions are easier to observe, long-term effects require time to pass in order to be realized and identified. The United States has had four official recessions in recent history, before the COVID-19 pandemic: 1981-82, 1990-91, 2001, and 2007-09 (Hoynes et al., 2012; Mishel et al., 2012). The standard approach in the literature is to exploit the temporal variation in macroeconomic conditions, using the national or state-level unemployment rate series over many years, and relate it to the aggregate outcomes observed in the successive cohorts of students that have graduated from college and started a job over the years. As a result, findings in this literature are typically identified as average effects, where a given increase in unemployment is associated with a particular outcome at the cohort level. We make this explicit throughout this review when discussing research findings.

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Figure 1. Percentage Change in National Unemployment Rate Since Beginning of Recession



Source: Current Population Survey

One implication of this use of data is that the notion of “average effects” does not capture specific effects for particular recessions. Recessions are similar in structure but not in magnitude or causes, and certainly not similar in the period of recovery that follows them (Figure 1). We dedicate particular attention to the findings pertaining to specific recessions, and specifically mention the effects of the Great Recession of 2007-09, which are still examined and discussed in this field.

2. Recession effects on college graduates’ earnings, wages and employment

Research in this literature has focused on whether a “bad economy” – understood as a period of economic contraction, when job availability decreases across industries and the rate of unemployment increases – affects the compensation that new graduates are offered at their starting positions, their ability to get a job, and their ability to secure full-time employment. Furthermore, pointing to differences in labor market outcomes between recession graduates and those who graduate in times of prosperity, studies in this literature examine if these starting differences dissipate over time as workers switch to better paying jobs, or if they remain as permanent losses over the course of workers’ careers. In this section, we present a review of the main findings of this body of research.

Effects on post-graduation earnings

Graduating and finding a job during an economic recession directly affects young workers’ earnings at the beginning of their working careers. Studies have found that, on average, a one percent increase in the rate of unemployment at the time of graduation leads to between two and four percent less in annual earnings for new workers in the first year of their working life. In practice, this means that individuals who graduate and enter the labor market in a recession, when the unemployment rate increases by 3-4 points, earn between six and sixteen percent less than their peers who graduate in a strong economy.² This difference in annual earnings in the first year out of college has been observed empirically, given the unemployment rate increase of around four percentage points that occurred in the 1981-82 and 2007-09 recessions, the two largest recessions in recent decades prior to the COVID-19 pandemic.

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² Although estimates between studies are difficult to compare because they use different methodologies or focus on different cohorts, multiple studies converge around somewhat similar results. The differences described here correspond to the range of results reported in multiple studies. At the lower bound, workers experience an initial loss in earnings of about 6% for a 3-point increase in the local unemployment rate (Oreopoulos et al., 2012). Other estimates suggest that workers who graduate in a recession, when the unemployment rate is four percentage points higher, report annual earnings that are 11.8% lower in their first year (Altonji et al., 2016); and that a one percentage increase in the local unemployment rate leads to 3.8% less earnings for workers, in general, with between 1 and 3 years of experience in the labor market, and 1.8% less earnings for college graduates in particular (Schwandt and von Wachter, 2019). Focusing exclusively on white males during the 1981-82 recession, one study found that recession graduates reported up to 16-20% less earnings in their first year out of college (Kahn, 2010), a substantially larger effect compared to other studies in the field. For context, the effects estimated in the North American countries are larger than those identified in other places. Brunner and Kuhn (2014) estimated that a one percent increase in unemployment leads to less than 1% decrease in starting wages, on average, for Austrian workers. Choi et al (2020) also found effects of less than 1% in earnings for Korean workers affected by the Asian financial crisis.

Two main reasons explain this loss of earnings during the first year of work: individuals who graduate in a recession work less than year-round full-time jobs and/or receive lower hourly wages for their work. Recession graduates, on average, take a longer time in their initial job search. In other words, they spend more time looking for a job in recession times, and less time in full-time employment in their first year as a whole. Recessions do not necessarily affect the ability of new labor market entrants to find a job – studies do not find that the probability of being employed in the first year of work is any different between recession graduates and their more fortunate counterparts (Altonji et al., 2016; Genda et al., 2010; Kahn, 2010; Kondo, 2015).

The notion of working “full-time” is determined by the number of weeks worked per year or by the number of hours worked in a typical work week reported by recent graduates for their first year of work experience. Estimates for this outcome vary to some extent as different studies use different metrics. For instance, estimating the probability of working a full-time job, Altonji et al. (2016) found that a college graduate entering the labor market in a large recession (that is, when unemployment increases around four percentage points) was 6.6% less likely to secure full-time employment than someone who graduated in times of average unemployment. This effect is, in fact, sizable considering that the authors analyzed a sample where about 87% of workers were employed full-time. Similarly, Genda et al. (2010) found that a one percent increase in unemployment at graduation was associated with individuals with a college education being nearly 2% less likely to report full-time employment in their first year out of college.

Evidence is more mixed when looking at the effective number of weeks worked or hours per week. Kahn (2010) found that white males who graduated in years of low unemployment reported working about three weeks more per year than those who graduated in years of high unemployment. Other evidence is more tenuous. For instance, Schwandt and von Wachter (2019) showed that a one percentage increase in the unemployment rate led to 1.5% fewer weeks worked per year for workers in general, but found no statistically significant effects for workers with a college degree. Genda et al. (2010) found very small effects of the unemployment rate on hours worked per week (less than an hour less of work). However, this estimate is likely upwardly biased as the authors restricted their sample to only workers who were employed in the week of reference and therefore were able to report a certain number of work hours.³

The second reason that explains the loss in earnings for individuals who graduate in a recession is the lower wage per hour that they get paid during their first year out of college. Schwandt and von Wachter (2019) indicated that, on average, college graduates with 1-3 years of work experience got paid about 1% less in hourly wages for every 1% increase in unemployment at graduation –thus, recession graduates receive between 3-4% lower hourly wages. This is consistent with Altonji et al. (2016), who found that in a recession cycle where unemployment increased by four percentage points, college graduates received, on average, 4.3% less in hourly wages.

³ Genda et al. (2010) used the March supplement of the Current Population Survey, which includes the question of how many hours a worker worked “last week”. By construction, this survey design leaves out the number of hours of those who were unemployed during the reference week.

In sum, the available evidence for recent decades suggests that students who graduate and start their working careers in a recession year typically earn less in their first year out of college than they otherwise would if they graduated in a period of economic prosperity. Compared to non-recession graduates, individuals who start their working career in recession years earn between 6% and 10% less in their first year out of college. This difference has been estimated to be up to 16-20% for some of the graduates that were particularly hard-hit by the recession of the early 1980s. This loss in earnings does not occur because recession graduates are more likely to be unemployed in their first year. Rather, it occurs because they are not able to work as much as their counterparts: they take longer to find a job, work less hours per week in their first-year job, or work part-time jobs. Another reason is that they often receive lower hourly wages for the work they do because of the economic downturn.⁴

While these observed losses in earnings during the first year out of college are significant, it is necessary to put these differences in perspective. Economic recessions affect all workers across the earnings distribution, but college graduates are substantially less affected than individuals who enter the labor market with less than a college degree (Speer, 2016). Across studies, the observed effects of unemployment on first-year earnings of college graduates are nearly half of those for workers with a high school degree or some college education. Schwandt and von Wachter (2019) and Genda et al. (2010) found effects of 1.5-1.8% less earnings in the first year for college graduates, and of 3.1-3.6% less for workers with lower education credentials. All in all, college graduates are less affected by the circumstances of the economy at the onset of their careers.⁵

As an additional note on the heterogeneity of these effects, a few studies have focused specifically on the different effects across gender and race. Kondo (2015) finds that the effect of entering the labor market with high unemployment on annual earnings for men is significant and similar in size compared to other studies in the field. However, the author finds no statistically

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⁴ Other outcomes for affected new entrants include a higher likelihood of being in poverty, receiving Medicaid or participating in social assistance programs (Schwandt and von Wachter, 2019).

⁵ Research also showed that college graduates were more geographically mobile and that their likelihood to move to a given state in the United States is determined, in part, by the perceived macroeconomic conditions of such state. Wozniak (2006) found that a one standard deviation improvement in local labor market conditions (that is, a lesser rate of unemployment) can be associated to 5-15% higher likelihood of moving to a given state for college graduates. These findings are consistent with those of Kawaguchi and Kondo (2020), who argue, similarly, that greater geographic mobility among college graduates provides a buffer for this group.

significant effects for women. Similarly, Schwandt and von Wachter (2019) find that the effects for men (estimated at around 4.3% less annual earnings) are larger than for women, which are estimated at around 3.2%. Nonwhite workers are found to be decidedly more affected than white workers in these studies. The comparison found in Schwandt and von Wachter (2019), for instance, shows that while white workers experience a loss of 3.8% in annual earnings, the loss for nonwhite workers is of about 4.4%.

Declining effects over time

A central question in this literature concerns the extent to which the negative effects observed in the first year out of college dissipate over time as the economy recovers and individuals move to better-paid jobs. In other words, the question is whether recession graduates are able to “catch up” with their peers after a few years into their working careers.

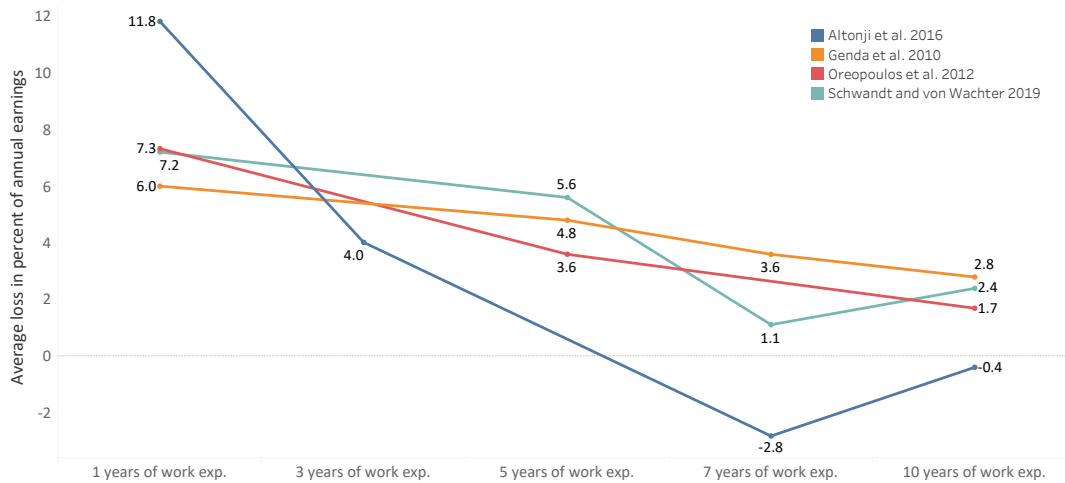
This question is predicated on two classes of models that depict the likely trajectory of a worker over time. First, “job mobility” models indicate that a large proportion of the wage growth that workers experience in their life occurs during the first ten years of their labor market experience (Topel and Ward, 1992). This growth is mostly driven by workers moving between employers and finding increasingly better-paying opportunities in the first few years of their careers. In this way, the job mobility framework predicts that workers climb up the job and wage ladders, despite their starting circumstances.

On the other hand, “human capital accumulation” models suggest that workers’ advancement depends, in part, on the investments in firm-, career- or task-specific skills that workers make in their first working years (Gibbons and Waldman, 2006; Jovanovic, 1979). Individuals that get started in a bad economy are likely to be employed in a position that is not appropriate for their skill level (“mismatched”) or remunerated less than they otherwise would, and this bad starting position does not allow them to invest in productive skills that can pay off later in their career. In this way, the human capital accumulation framework allows for the possibility that the initial effect in the first year becomes a more persistent disadvantage over time. Taking a long-term perspective, research in this field provides insights into what happens to the trajectories of recession graduates.

Studies overall suggest that the negative effects of the unemployment rate at graduation disappear within 5-7 years. Altonji et al. (2016) estimated that recession graduates reported about 11% less annual earnings in their first year as a consequence of graduating when the unemployment rate was four percentage points higher than average. After three years of labor market experience, the difference between recession and non-recession graduates’ earnings was only about 4%. By year seven, the difference was no longer observed. Similarly, Schwandt and von Wachter (2019) identified that the difference of 1.8% less earnings in the first three years of work experience (for a one percentage increase in unemployment at graduation) decreased to 1.4% less within 4-5 years, and virtually disappeared within 6-7 years. Genda et al. (2010) found no effect after 4-6 years for workers with at least some college education (Figure 2).

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**Figure 2. Persistence in Loss of Annual Earnings in the First Ten Years of Work Experience for a 4-point Increase in the Unemployment Rate
Comparison Across Studies**



Note: The figure is a stylized visualization of the estimates presented in different papers. The sources are: Altonji et al. (2016), estimates obtained from Table 3, pp. S376; Genda et al. (2010), estimates obtained from Table 6, pp. 177 and multiplied by 4 for comparability; Oreopoulos et al. (2012), estimates obtained from Table 1, pp. 12 and multiplied by 4 for comparability; Schwandt and von Wachter (2019), estimates obtained from Table 4, pp. 188 and multiplied by 4 for comparability.

The only exception to this pattern was presented by Kahn (2010) who found particularly large and persistent effects for white males who graduated in the middle of the 1981-82 recession. According to the author, considerable differences for the examined cohorts remained after 10 years of entry to the labor market (about 4% less earnings), and non-trivial differences were still observed even after 15 years (almost 3% less earnings). These findings stand out and are unique in this literature. Virtually all other studies identified considerably less persistent effects.

Here, again to put things in perspective, it should be noted that college graduates exhibit a different pattern compared to other labor market entrants. While the negative impact on earnings of the first-year shock have been found to fade away after 5-7 years for college graduates, most studies have found more persistent effects for workers without a college degree.

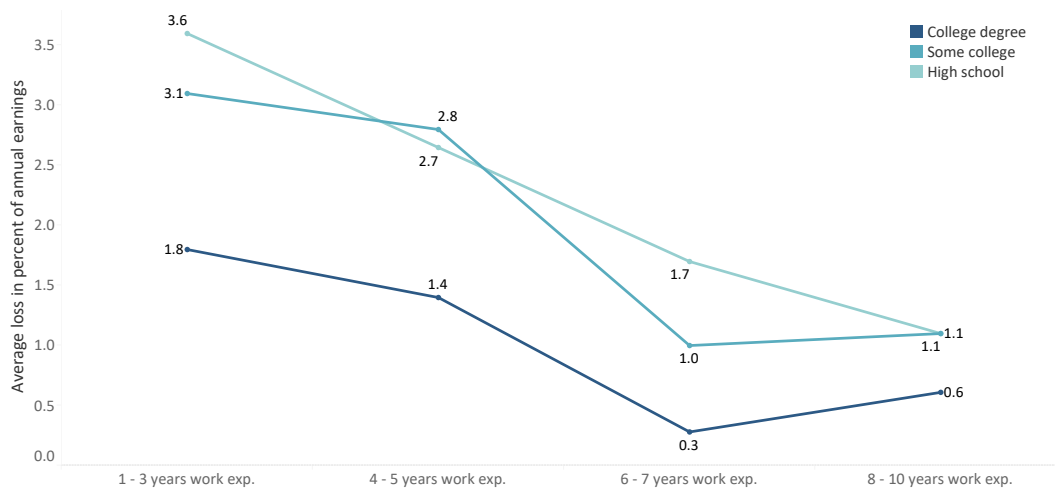
Schwandt and von Wachter (2019) found that the initial shock amounts to about 1.8% less earnings per one percent increase in unemployment for those with 1-3 years of labor market experience. As noted before, the effect was 3.6% and 3.1% less earnings for workers with a high school degree or some college, respectively. Within 4-5 years of work experience, the effect identified remained about 2.6-2.8% less earnings for these two groups – about twice the effect for college graduates at the same level of labor market experience (Figure 3). The authors found significant effects still after 6-7 years and, at 8-10 of work

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experience, workers with a high-school degree or some college still reported annual earnings that were depressed by about 1% (Schwandt and von Wachter, 2019).

In sum, workers with a college degree in the past have generally been able to overcome early stage disadvantage posed by starting their career during a bad economy within 5-7 years, whereas workers without a college degree experience more persistent effects of this initial disadvantage for up to 10 years. Such findings are referred to as the “scarring” effects of unemployment on workers’ careers.

Figure 3. Percentage Loss of Annual Earnings per One Percent Increase in Unemployment Rate at Labor Market Entry, by Education Group Trajectories During First Ten Years of Work Experience



Source: Schwandt and von Wachter (2019). Figure exhibits estimates displayed in Table 4, pp. S188. Coefficients for group with college degree for 6-7 and 8-10 years of work experience are not statistically significant.

Mechanisms behind the fading effects over time

As noted earlier, standard job mobility and job search models suggest that, at the beginning of their careers, workers move a lot between employers, upgrading to better jobs and experiencing considerable increases in earnings (Topel and Ward, 1992). Human capital accumulation models also allow for the possibility of advancement, where workers invest in productive skills that pay off in their industry, firm or occupation (Gibbons and Waldman, 2006). Empirical research has contributed to better understand the exact ways in which unlucky recession graduates “catch up” with the earnings of their lucky, non-recession peers.

Oreopoulos et al. (2012) exploited a rich university-employer-employee matched administrative dataset that contained information for cohorts of college graduates in Canada between 1976-1995, and provided a detailed examination of the early years of graduates’ careers.⁶ Consistent with the expectation of an initial “mismatch”, the authors found that graduates who entered the market during times of high unemployment

⁶ Although this study pertains to Canada and not the United States, its findings about the effects of recessions on earnings are very similar in magnitude to those found for US cohorts of college graduates in other studies.

were more likely to be employed by firms that were smaller, paid less for labor in general, and offered lower median wages to their employees (these were referred to as “lower quality employers”).⁷ But the authors found that firm quality for college graduates improved quickly. In general, college graduates switched to increasingly better employers during their first 4-5 years in the labor market. Then, the fraction of workers switching employers decreased considerably, but the catch up in earnings continued.⁸

Taken together, as the authors noted, these findings suggest that the catch up in earnings process occurs in two phases. First, graduates that start their careers in a bad economy find jobs with unsatisfying employers, but tend to switch to increasingly higher quality employers in their first 4-5 years. These are employers that pay better and fit better with their skills and abilities. In this first phase earnings grow rapidly. Then, after they attain better positions at better firms, although college graduates continue to experience increases in earnings in their industry, earnings growth slows down (Oreopoulos et al., 2012).⁹

Two additional observations arise from this research. First, the worse the economic circumstances at the start (that is, the higher the unemployment rate), the worse the mismatch is for graduates, on average, at their starting jobs.¹⁰ Therefore, a harder recession implies a larger gap to overcome for all graduates in general. Second, the time to close such a gap by switching to better employers after harder recessions is longer. At some point, switching between employers becomes too costly for young workers, and they stop searching for better matches and remain in their firms, still increasing their earnings, but not fully closing the gap with their counterparts that started at higher quality employers (Oreopoulos et al. 2012). This brings us to the next set of findings in this literature, motivated by one important question: do recessions affect all college graduates equally?

The catch up in earnings process occurs in two phases. First, graduates switch to increasingly higher quality employers in their first 4-5 years. These are employers that pay better and fit better with their skills and abilities. Then, after they attain better positions at better firms, earnings continue to grow more slowly.

⁷ An analysis of the economics profession offers further insights into the specific mechanisms explaining how a bad economy at the start affects individuals’ productivity and earnings over the long-run by negatively influencing the first job individuals get. In a study comparing the trajectories of economics PhD graduates from top economics departments in the United States, Oyer (2006) observed that equally-ranked PhD recipients start at differently-ranked departments because of cyclical increases and decreases of job openings. Then, because of starting in different departments, similarly ranked PhD graduates’ trajectories diverge in their productivity. While those placed at higher-ranked departments are able to produce more because of departments’ culture and incentives, their peers who start their jobs at comparatively lower-ranked departments are less productive, despite their similar expected productivity based on observable characteristics.

⁸ Consistent with this set of explanations, Kwon et al. (2010) showed that new labor market entrants were more likely to be promoted and climb faster to higher ranks when they entered firms in the periods of economic booms.

⁹ Focusing on the segmented labor market in Spain, Fernandez-Kranz and Rodriguez-Planas (2018) have shown that this catch-up process by switching between employers is largely constrained by labor market institutions. In Spain, where labor and wage regulations are rigid, productive mobility to better firms seems more difficult.

¹⁰ The notion of “mismatch” as is used in this literature refers to the mismatch between the skills supplied by college graduates and the skills demanded by hiring firms. During recessions, qualified workers often take positions that would otherwise be filled by less qualified candidates (Liu et al., 2016).

Differences in recession effects

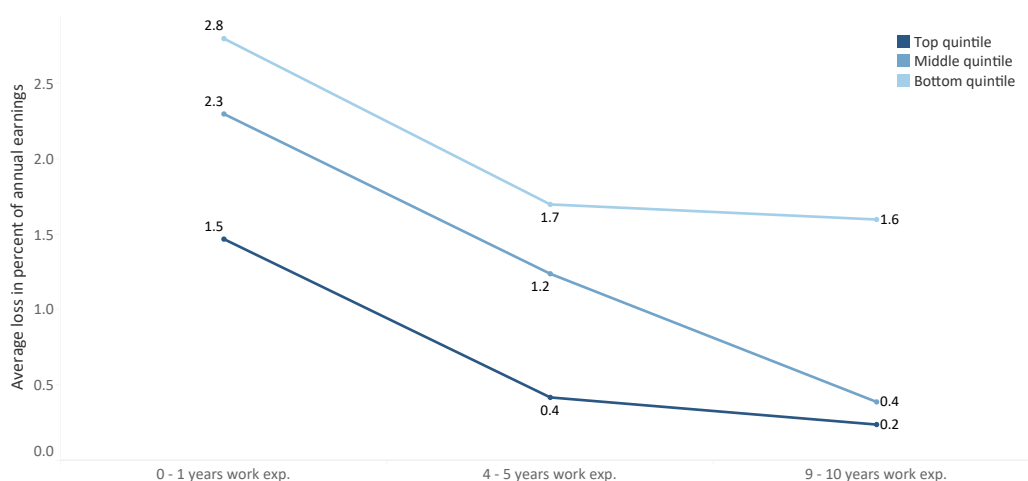
While college graduates are better-off than workers without a college degree in terms of their ability to recover from the initial shock of a recession, research also shows that there are differences among college graduates in their labor market trajectories. These differences are mainly observed between students from different college majors that, in turn, exhibit different earnings potential.

Comparing different quintiles in the distribution of college graduates based on their predicted earnings by major at the time of graduation, Oreopoulos et. al (2012) showed that graduates in the bottom quintile, on average, reported 2.7% less in earnings in their first year for a one percent increase in the unemployment rate at the time of graduation. Graduates in the middle quintile reported 2.3% less, and those in the top quintile reported earnings losses of only 1.5% in their first year. The authors' estimate for all graduates in the first year was 1.8% less in annual earnings.

While college graduates are better-off than workers without a college degree in terms of their ability to recover from the initial shock of a recession, there are differences among college graduates in their labor market trajectories depending on their major.

The negative effects of entry conditions on annual earnings are more persistent for graduates with the lowest predicted earnings. At 4-5 years of experience, these graduates reported, on average, about 1.7% less in earnings, and at 10 years of experience, the magnitude of their lost earnings remained, on average, at 1.6%. Graduates in the middle quintile of the predicted earnings distribution reported losses of 1.2% annual earnings at 4-5 years of experience, and the gap in earnings for them disappeared after 10 years of experience (Figure 4). Graduates from the top quintile were on average, able to catch up with the earnings of those who graduated in more prosperous times within five years (Oreopoulos et al., 2012).

Figure 4. Percentage Loss of Annual Earnings per One Percent Increase in Unemployment Rate at Labor Market Entry, by Position of Major in Predicted Earnings Distribution Trajectories During First Ten Years of Work Experience



Source: Oreopoulos et al. (2012). Figure exhibits estimates displayed in Table 2, pp. 18. Coefficients for earnings for middle and top quintile majors at 9-10 years of work experience are not statistically significant.

Similarly, examining the differences between graduates from different college majors, Altonji et al. (2016) indicated that the negative effects of the shock at graduation on annual earnings were not nearly as large for graduates from high-return majors. On average, students receiving degrees from high-return majors –like Engineering, Chemistry, Finance, or Economics– experienced a loss of earnings in their first year out of college of about 6.3% for a large recession, where the unemployment rate increased by four points. The authors’ average estimate for all graduates in their first year was 11.8%. After 3 years of labor market experience, the average effect caused by a large recession estimated by the authors was approximately 3.4% less in earnings, but the effect for those graduating from high-return majors dissipated at this level of work experience (Altonji et al., 2016).

These findings suggest that there is some heterogeneity among college graduates. To be sure, college graduates bounce back much faster than their peers without a college degree, in general. However, within the group of college graduates, those who receive degrees from majors with higher earnings returns are, in general, less impacted by the labor market conditions when they graduate, and experience rapid growth in earnings that allows them to catch up with the earnings of non-recession graduates within 5 years.

Finally, a detailed examination of graduates’ experiences in the labor market in their first years corroborates the expectations stemming from job search and job mobility models: graduates from high-earning majors were found to be far more likely to switch employers and find increasingly higher quality employers during the first years of their careers. This is the period where they saw their earnings increase rapidly (Oreopoulos et. al., 2012). Studies have found that graduates from lower-return majors take longer or, simply, never quite catch up with the earnings of their non-recession peers.

3. Effects on Postsecondary Enrollment, Family Formation and Asset Building, and Health

Education Beyond College

As job opportunities decrease during recession periods, many workers exit the workforce and find alternatives to employment. One of these alternatives is going back to school and obtaining educational credentials that can put them in a better position later when the economy recovers. In this way, an increased likelihood of enrolling in graduate/professional school or obtaining other postsecondary education credentials is a likely consequence of graduating during recessions.

However, the relationship between increased unemployment and school enrollment, in general, can go in both directions. On the one hand, economic downturns are marked by reductions in family income and assets, which can have negative effects on enrollment for families that cannot afford tuition costs and other expenses. On the other hand, increased unemployment can have a positive effect on enrollment because the opportunity cost of attending school is significantly reduced during a weak economy.

Empirical studies identifying the net effects of economic downturns have consistently found that increases in unemployment generally have a positive effect on enrollment in postsecondary education. For example, studying the period

Increases in unemployment generally have a positive effect on enrollment in postsecondary education.

between 1968-1988, Dellas and Sakellaris (2003) found that, on average, a one percentage point increase in the unemployment rate was associated with a 2% increase in college enrollment. Increases in postsecondary enrollment during periods of heightened unemployment have been found to be the norm in every economic recession since the 1960s (Long, 2015), particularly for 16-24-year-olds (Bell & Blanchflower, 2011). Conversely, studies have found that periods with strong labor markets tend to be associated with flat or declining enrollment (Clark, 2011).

These trends apply both for individuals who hold no degrees and for individuals who return for graduate degrees. For individuals who do not have a credential, studies have found increases in enrollment in community colleges or other short-term credential programs (Card and Lemieux, 2001; Long, 2004). A recent study by Foote & Grosz (2020), aiming at identifying a causal relationship between increased unemployment and increased enrollment at local community colleges, found that for every 100 workers laid off in a given geographic region, three additional students enrolled at their local community college.

Beyond this general relationship between unemployment and school enrollment, studies have found that, for recent college graduates, the likelihood of enrolling in a graduate school increases during a recession. One study indicated that a one standard deviation increase in unemployment for a given U.S. state was associated with an average increase in graduate school enrollment of 4.3% for women (Johnson, 2013). An earlier study found a similar result for men, with unemployment increases being associated with increased enrollment in graduate schools. This finding was higher for men with higher GPAs in their undergraduate career, and graduate school enrollment was concentrated in Ph.D. programs in STEM fields (Bedard & Herman, 2008).

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A caveat to this increased enrollment in graduate school trend is that, on average, graduate school enrollments have been increasing yearly since 2008 (Okahana & Zhou, 2019). This suggests that strictly observational data on increased graduate school enrollments may be confounded by a general trend of increased credentialing and a higher skilled workforce. For example, the Bureau of Labor Statistics reports that jobs requiring Master's and Doctorate degrees have the highest growth rate projected through 2026 (BLS 2019).

Despite this caveat, the literature suggests that, overall, recessions and economic downturns do have an inverse relationship with postsecondary enrollment, and that this relationship holds true for graduate school. The overall findings of the literature suggest that graduating during a recession makes college graduates more likely to return to school for additional credentialing or as a possible economic shelter from a slack labor market.

Family Formation and Asset Building

Recessions' negative and persistent effects on workers' earnings and ability to work full-time mean that, compared to more fortunate cohorts, recession graduates experience losses at the beginning of their working careers. For most "unlucky" labor market entrants, these losses eventually dissipate after a few years of work experience, but they sometimes have consequences for their life trajectories.

One question that researchers have explored is how recession graduates compare to their more fortunate counterparts in achieving the typical milestones of economic independence and success as young adults. These milestones often take the form of asset holding or asset building, such as owning a home, owning a vehicle, and having enough wealth to live apart from one's parents. Other outcomes of interest concern individuals' ability to form a family, where marriage rates and birthrates are often used as indicators for young workers' economic independence and financial security. As recession graduates stand at a disadvantage, the expectation is usually a lower likelihood of achieving certain milestones within a certain timeframe.

A study using the Current Population Survey found that a one percentage increase in the unemployment rate at the time of graduation resulted, on average, in a 0.05 increase in the number of individuals that a graduate lives with during the five years after graduating. Roughly 1 in 20 men live with either roommates or their parents during economic recessions (Kawaguchi & Kondo, 2018). Exploring patterns of intergenerational cohabitation, the authors concluded that the trend was largely driven by men living with their parents for up to five years after graduation.

Some evidence suggests that recession graduates are less likely to be married or have kids at midlife compared to non-recession graduates. One study found that men who graduate during periods of high unemployment were less likely to be married or have children at age 45. The effects for women seem to be different: women graduating during recessions were more likely to have children and were no different compared to their counterparts in their marriage rates (Macleay, Covington, & Sikora Kessler, 2016). Results also showed that the effects for men were largely concentrated in individuals with low-skill employment.

As mentioned above, female graduates seem to exhibit a different pattern. Some evidence suggests that economic downturns actually decrease the age at which women get married. Kondo (2012) found that a one percent increase in female unemployment is associated with, on average, a decrease of 0.416 years in the median age of marriage. Again, the effect is the opposite for men: a one percent increase in unemployment was associated with an increase of 0.178 years in the median age of marriage for men. These results, however, did not affect the overall share of women who were married by age 30 in the author's study. As a potential mechanism for the observed trend, the author suggested that women who already would have been married by age 30 without the increased unemployment were expediting the premarital courtship and increasing their search intensity, thus lowering the median age (Kondo, 2012).

Empirical results for countries other than the United States corroborate the findings for women. A recent study found that, in Germany, women graduating during economic downturns had a cumulative five-year difference in the probability of having their first child of 6.5%, meaning that the probability of having a first child in the first five years following graduation was greater for women who graduated in regions experiencing higher unemployment (Hofmann & Hohmeyer, 2016). This effect, the authors demonstrated, decreased after 5-8 years of graduation.

Results for asset holding and building paint a somewhat mixed picture. Available evidence suggests that in the long-run, recession graduates are no different than their counterparts in terms of home or car ownership in midlife. One potential mechanism to cope with hard macroeconomic conditions at the onset

of a worker's career seems to be geographic mobility. A nontrivial number of young workers seem to move to places with better job prospects and lower costs of living in order to secure certain family standards (Kawaguchi & Kondo, 2020).

In sum, results in this literature suggest that graduating in a recession has the effect of delaying marriage and childbearing for men but not for women. Women, to some extent, seem to be more likely to get married earlier in life if they graduate in a recession, or at least are no different in their marriage timing than their non-recession graduate counterparts. In the long-run, asset building seems to not be affected by economic recessions. One potential coping mechanism for recession graduates seems to be geographic mobility to places with more opportunities and lower costs of living.

Graduating in a recession has the effect of delaying marriage and childbearing for men but not for women. Women, to some extent, seem to be more likely to get married earlier in life if they graduate in a recession, according to recent research.

Effects on Health

Of particular concern are long-term, health-related outcomes that may be associated with entering the labor market during times of high unemployment. Economic recessions affect individuals in a very direct sense: a slack labor market reduces the number of jobs available for young workers, affecting their immediate earnings and, subsequently, their earnings and employment potential in the first years of their working careers. Some studies explore the possibility that these direct negative effects on individuals' socioeconomic wellbeing may have downstream consequences for their health during their 30s and 40s.

Following the cohorts of college graduates that finished school and entered the labor market during the recession of the early 1980s, Maclean (2013) noted indeed that self-reported health during middle-age for men in this group of graduates was relatively worse compared to cohorts that started their working lives during better economic circumstances. But the link between economic conditions at labor market entry and health outcomes later in life remains actively debated.

In general, socioeconomic circumstances and their effects on health have received wide attention in the public health literature in recent decades. Even more recently, disproportionate increases in deaths caused by suicide, liver problems, and drug overdoses in areas in the U.S. with particularly weak economies have sparked debate about whether there is a causal connection between economic circumstances and health and mortality outcomes (Ruhm, 2018). Despite this contention, the few studies that focus on the effects of recessions have yielded some notable results. More importantly, the link between conditions at entry and outcomes in midlife has been identified only in a handful of studies and in a very narrow sense, focusing, specifically, on changes in mortality and life expectancy (Sullivan & von Wachter, 2009).

Re-examining the evidence for those entering the market in the recession of the early 1980s, Schwandt and von Wachter (2020) established that the nearly four percent increase in unemployment at labor market entry that some cohorts experienced resulted in an effect that accumulates over the life cycle of individuals and results in a reduction of between 6-8 months in life expectancy. Such an effect can be rendered causal and robust to different specifications, according to the authors (Schwandt & von Wachter, 2020).

Nevertheless, the practical channels through which this effect comes to fruition remain in need of further exploration.

One hypothesis states that entering the labor market in a recession makes individuals more likely to adopt unhealthy behaviors, such as smoking or drinking, or develop poor eating habits (Cutler et al., 2015). However, these behaviors have been shown to be more frequent among workers with fewer educational credentials. College graduates are, to some extent, protected from these negative outcomes (Cutler et al., 2015), which adds to the puzzle of how conditions at entry may bring about negative health effects later in life.

Some studies have found a lack of negative results altogether. Hessel and Avendano (2013) found no evidence that economic recessions at the time of graduation have negative effects for men, although they did find some negative effects for women in their 50-70s. In sum, the available evidence on downstream health effects of entering the labor market in a recession remains scarce. The effect that has been most credibly identified as causal pertains to reduced life expectancy. This effect seems to be mostly affecting men, and the channels through which the accumulated effect that results in reduced life expectancy remain still to be explored.

Graduating in a recession may have negative health effects later in life, or may have the cumulative effect of reducing life expectancy, but these findings remain under study and discussion.

4. Recession effects on college graduates in the 21st century: The Great Recession & the COVID-19 pandemic

While the findings in the literature reviewed thus far pertain to the effects of increases in unemployment in general, a separate question concerns the effects of specific recessions in particular. The negative effects on earnings and employment caused by a recession can be large because of its specific nature and magnitude. Additionally, it is also possible that the effect of a one percentage increase in unemployment on earnings and wages varies across recessions. Indeed, some evidence suggests that this effect has increased in recent years (Altonji et al., 2016; Rothstein, 2020).

The Great Recession of 2007-09 was different compared to previous recessions in at least two ways. First, the unemployment rate increase was considerably larger and steeper compared to previous recessions (Hoyne et al., 2012; Mishel et al. 2012). Unemployment went from 5% in December 2007 to more than 10% in October 2009. Subsequently, it declined very slowly at a rate of less than one percentage point per year. The national unemployment rate did not fall below 6% until 2014, and it was not until 2017 that it fell below its pre-recession level. Second, the Great Recession was followed by a period of very slow job recovery. The number of jobs did not recover to their pre-recession levels until 2014-2015. Previous recessions were followed by shorter, steeper periods of job recovery. These characteristics make the Great Recession a case study whose long-term consequences are still under scrutiny.

Some findings suggested that the hit on earnings of the Great Recession was large, but the subsequent catch up occurred quickly. Pooling together the cohorts of college graduates who finished school and started a job after 2004, Altonji et al. (2016) found substantially larger effects of unemployment at graduation on earnings in the first year out of college. While the average effect for a large recession (4-point increase in unemployment) for the entire sample was a loss of 11.8% in annual earnings, the authors found that such effect amounts to, on average, 24% for those who graduated after 2004. These losses, however, seemed to have dissipated for college graduates after only 3 years of labor market experience.

The hit on earnings of the Great Recession was large, but the subsequent catch up occurred quickly. Earnings losses for college graduates seemed to dissipate after only 3 years of labor market experience.

More than a decade after the Great Recession, the medium- and long-term effects of the COVID-19 pandemic remain to be realized. In the short-run, the 2020 recession caused by the coronavirus has particular characteristics that set it apart from previous periods of economic downturn. Between February and April 2020, the unemployment rate increased by more than 10 percentage points. By some estimates, nationwide unemployment could have reached above 20% in the month of April. Most of this increase owes to the share of workers who were temporarily laid off and were uncertain about whether they would be called back when the economy reopened. Historically, such share has never exceeded 30%. It reached 80% in April. Thus far, job losses in 2020 have been about 50% larger than in the whole period of the Great Recession (Bartik et al., 2020).

The economic industries affected by the 2020 recession are also different. Whereas the Great Recession was characterized by sizable losses in the numbers of jobs in manufacturing and construction (Mishel et al. 2012), the economic halt brought about by the pandemic mostly hit the service industries, with leisure and hospitality seeing employment drop by half between February and April, and large losses in retail trade. A decade ago, the sectoral composition of unemployment was quite different. Jobs in construction and durable goods manufacturing declined the most in the Great Recession, while low-wage services were relatively insulated.

Employment bounced back to some extent between May and June of 2020. Examining the composition of the sectors that experienced initial drops and subsequent rebounds in employment, some recent analyses show that job losses were disproportionately concentrated among low-wage workers, for whom employment remains about 20% lower compared to February of 2020 (Cajner et al., 2020). It seems like the pandemic-caused recession triggered a dramatic rise in unemployment concentrated in a few sectors, followed a moderately rapid recovery for specific segments of the labor market. The question of whether other segments of the labor market will recover soon is an open one.

While the most apparent consequences of the 2020 recession are being experienced by workers without a college degree, previous research suggest that recent college graduates can be expected to experience losses in their earnings in the years to come as a result of the overall macroeconomic conditions defining the current labor market. The question of how recent, current and soon-to-be graduates might be affected

by the current recession is of crucial importance, especially given some recent evidence showing that opportunities for new graduates have been on a steady decline since before the Great Recession of 2007-09.

In a recent study, Rothstein (2020) argued that a structural break seems to have taken place in the mid-2000s that created a sharp distinction between the cohorts graduating before and after 2005. The employment rate for new cohorts of graduates has been steadily declining in a secular trend that started in the mid-2000s and continues to the present. In the period between 2011-2019, the aftermath of the Great Recession, the overall employment rate increased, but the employment rate for new entrants remained stagnant. That is, new graduates did not find increased work opportunities upon entry to the labor market in recent years, despite entering in a period of historically low unemployment.

Rothstein (2020) argued that the employment rates for those who entered the labor market in 2010 are 1.6% lower than would have been predicted based on previous employment trends. For 2017 entrants, the employment rate was about 5% lower than would have been predicted. Wages, conversely, for those who entered in the years after the Great Recession appear to be higher than would have been predicted. If there is a distinctive story about the Great Recession, it does not concern its potential scarring effects, but rather has to do with some structural change in the labor market that has put new graduates at a relative disadvantage since the mid-2000s (Rothstein, 2020). It remains to be seen how this secular trend will interact with the immediate effects of the 2020 pandemic, which have disproportionately affected particular segments of the labor market where workers are not college degree holders.

5. Practical Implications

This review shows that recessions have an effect on college graduates entering the labor market that is independent of their individual characteristics and, ultimately, presents itself beyond their control. As recessions are periods of great uncertainty that can bring feelings of insecurity and affect young adults' mental health, it is important to note at the outset that struggles following college graduation are not a matter of personal failure. As this review of the research shows, equally capable, qualified, and skilled individuals exhibit disparate outcomes right out of college just by virtue of entering the labor market when jobs are scarce and the unemployment rate is high.

Recession graduates are more likely to find starting jobs that do not match their level of skill and/or interests.

That acknowledged, the research reviewed here is instructive for advancing our thinking on what college graduates can expect, and the potential strategies they can adopt to effectively cope with the COVID-19 pandemic and its accompanying recession.

Recession graduates are more likely to find starting jobs that do not match their level of skill and/or interests. A fact about recessions is that employers may opportunistically inflate the skill or experience requirements for positions in their firms in order to maintain productivity (Hershbein and Kahn, 2018; Modestino et al. 2016). Younger workers and new entrants may be affected by this shift in the structure of the labor market and may have to take positions typically filled by individuals with lesser levels of skill.

Although one's starting position can generate long-term consequences, these consequences are not all equal; some positions are good steppingstones for career advancement while others can hinder advancement in a more permanent way. Workers in the long-run **can benefit from continuously developing job search skills in order to find a better match** that offers more prospects for promotion or wage growth. Job search skills include networking, resume building, cover letter writing, interviewing skills, finding job opportunities, etc.

Workers in the long-run can benefit from continuously developing job search skills in order to find a better employer.

Frequent job mobility is a fact of working life for virtually all workers under normal circumstances. Young workers move quite a bit during their first years of work experience, and these frequent moves between employers allow them to attain better paying jobs. As noted earlier, recession graduates are likely to start in worse starting jobs as a result of the economic downturn. **Young workers can benefit from alternative opportunities that become rapidly available as the economy recovers** –that is, staying aware of potential opportunities is particularly important as workers get re-matched with new jobs during periods of economic recovery. This may require individuals to consciously develop internal (e.g., career adaptability) and external resources (e.g., support network) to enable themselves to cope with unstable labor market and frequent job transitions (Savickas, 2012).

Starting in a “bad economy” can be difficult and discouraging. Nevertheless, job market signals remain important through the first years of young workers professional lives. **Constant development or acquisition of new skills will always be relevant**, particularly in this everchanging economy environment. Job requirements and desired competencies may change rapidly due to the rise of new technology or social unrest. Therefore, students are encouraged to keep attention on needed skillset by desired industry or career path, and even more so when workers climb up job and wage ladders during post-recession recoveries.

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In a similar vein, if circumstances are favorable, **new graduates may be benefit from pursuing further formal education credentials**. Considering further postgraduate education is important in several respects. In recessions, jobs become scarce and it becomes difficult to secure good-fitting full-time employment. Attending graduate or professional school can be a part-time alternative, with the prerequisite that personal circumstances and cost-benefit calculations make enrolling in school a realistic possibility. If personal finances or available financial aid makes it possible, research shows that further education serves as a signal of higher skills and makes workers more versatile in the pursuit of opportunities during times of economic recovery.

Additionally, it is worth keeping in mind that despite the negative effects, college graduates exhibit much better results at the beginning of their professional lives than workers who lack a college credential. All in all, a college degree remains an important source of protection against the ups and downs of economic cycles. It is thus worth noting that extra attention and support is needed for young people with disadvantaged education resources and access.

Higher education administrators, counselors and faculty might use the insights from the research reviewed here in order to inform their advising role. It is important to help graduating students calibrate their expectations according to the macroeconomic circumstances, help them know what to expect as they enter the labor market, and educate them in the dynamics that may affect their earnings, employment, health and other outcomes in the first few years out of college. Awareness of the obstacles but also a better understanding of the paths to recovery might be useful tools to approach the market for young new entrants.

In addition, higher education plays a critical role in developing students' career competencies, which can make students more resilient when facing changes and challenges after graduating from college and transitioning to workforce. Well-designed career intervention programs, events, and curriculums can not only help students build specific skills such as interview and networking but also boost students' sense of future planning, self-management, confidence, etc.

Finally, policy makers aware of this research might be better suited to design employment and assistance policies that can aid recession labor market entrants. A better understanding of the trajectories of workers in their first years out of college can help design and implement strategies to ameliorate this structural source of inequality.

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The mission of The Center for Research on College-Workforce Transitions (CCWT) is to conduct and support research, critical policy analysis, and public dialogue on student experiences with the transition from college to the workforce in order to inform policies, programs, and practices that promote academic and career success for all learners.

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Center for Research on College to Workforce Transitions (CCWT)
1025 West Johnson Street, Madison, WI 53706
For more information contact Amy Rivera (arivera3@wisc.edu)
ccwt.wceruw.org