DISRUPTING SOCIOECONOMIC STATUS: THE RECONCEPTUALIZATION OF THE ROLE OF HIGHER EDUCATION IN INTERGENERATIONAL MOBILITY

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Higher education comes with the implicit promise of improved socioeconomic returns for individuals who obtain a bachelor's degree; however, there are vast differences in student outcomes across institutions. Current research by sociologists and economists on the role of education in the disruption of socioeconomic status treats attending higher education institutions as largely homogenous experiences, overlooking the complex interaction between students and institutions. This literature review was used to examine the current research on the role of higher education in intergenerational mobility and propose an interdisciplinary expansion of these research frameworks to better understand higher education's role in the disruption of socioeconomic status.

Keywords: socioeconomic status, intergenerational mobility, higher education outcomes

Within the United States, higher education is viewed by many as a stepping stone to economic and social mobility. The promise of improved socioeconomic outcomes continues to draw many students to enroll despite the increasing attendance cost (National Center for Education Statistics, 2019). The implicit (and sometimes even explicit) promise is that a postsecondary degree is a pathway to upward mobility for all individuals. Hout first presented the perception of higher education as an equalizer across socioeconomic backgrounds in his 1988 study; findings indicated that socioeconomic origin had no significant influence on occupational status for individuals with a bachelor's degree. Since this foundational study, additional researchers have confirmed Hout's finding using later cohorts in the United States (Fox et al., 2016; Hauser & Logan, 1992; Pfeffer & Hertel, 2015; Torche, 2011).

However, these studies treat attending higher education as a monolithic experience with little exploration of the institutions or the students' experiences within them. Higher education institutions are diverse, and students experience differential outcomes, such as graduation and earnings, based on their demographics (Baum et al., 2013; Bowen et al., 2009; Creusere et al., 2019) as well as the institutional type (Giani, 2016; Heil et al., 2014; Monsen, 2018; Thompson, 2019). The absence of research examining the nuanced interaction between institutions and students in intergenerational mobility leaves researchers and policymakers without empirical evidence on how to foster intergenerational mobility and leaves the promise of upward mobility unfulfilled for many students.

Purpose

In this review, I examine research on intergenerational mobility from sociology and economics together with research on higher education to present an argument to both researchers and policymakers for a new way of exploring how higher education disrupts the persistence of socioeconomic status across generations. For the scope of this article, I will focus on 4-year, nonprofit institutions to narrow the area of inquiry. In order to present this argument, I will begin by explaining the importance of this research in the current societal landscape followed by an overview of intergenerational mobility research from sociology and economics. I will then draw from research on higher education outcomes to demonstrate how this area of scholarship can enhance an understanding of intergenerational mobility and articulate a new conceptual framework and approach.

Method

For this review, I utilized an integrative literature review method that has the aim to "assess, critique, and synthesize" literature on a given topic (Snyder, 2019, p. 335), which also supports the purpose of proposing a new conceptual framework for examining the relationship between attending higher education and intergenerational mobility. For this review, I chose to focus on articles that utilized quantitative methodologies as the study of intergenerational mobility has predominantly used such methods. Additionally, qualitative researchers are ahead of quantitative methodologists in delving into the nuanced relationship between students and institutions regarding socioeconomic status (Ardoin & martinez, 2019; Armstrong & Hamilton; 2013; Bettencourt et al., 2020), warranting quantitative studies as the focus for this review. In the search process, I followed the six elements of an integrative literature review recommended by Callahan (2010, 2014) as detailed below.

To thoroughly search the literature, I utilized multiple online databases, including ERIC, Academic Search Premier, and Google Scholar, using the following combinations of search terms: mobility AND higher education; mobility AND United States; "economic mobility" AND "higher education," "social mobility" AND "higher education," "higher education" AND "outcomes." I limited my search to articles published in peer-reviewed journals and National Bureau of Economic Research white papers with full-text versions available. The search was conducted in June and July 2019 and again in September 2020. After removing redundant articles, 80 articles remained.

For the initial screening, I examined abstracts to determine if the studies explored the impact of attending higher education on social or economic mobility. Studies that focused on mobility in other countries or did not focus on higher education were excluded. If the article was determined to be relevant, the full text was screened for the following criteria: (a) empirical study, (b) published in English, (c) used quantitative methodologies, and (d) published between 1980 and 2020. As a result, I identified 25 articles for the final review.

I utilized Microsoft Excel to create a matrix to organize the articles. Data elements for the excel sheet included author names, study title, journal title, publication year, mobility measurement type, and findings. Articles were categorized based on whether they used sociological or economic mobility measures.

Current Landscape

The following section highlights the convergence of factors that make the attainment of a bachelor's degree increasingly important for individuals and society thereby establishing the rationale for the importance of understanding research on intergenerational mobility. To begin, between the 2006–07 and 2016–17 academic years, the cost of undergraduate tuition, fees, room, and board at public institutions increased by 31% while costs at private institutions increased by 24% (The Pell Institute for the Study of Opportunity in Higher Education, 2019). As higher education costs continue to grow, available state and federal aid has failed to keep up, increasing the net price of attendance for students and their families. The growing amount students and their families must cover has made financing a college degree challenging, if not prohibitive, for many from lower socioeconomic backgrounds (Mitchell et al., 2019).

The challenges associated with paying for higher education have led many students and their families to question if the benefits of higher education are worth the cost. However, economic data show a wage premium associated with bachelor's degree attainment (Carnevale et al., 2011; Haskins, 2008; Oreopoulos & Petronijevic, 2013; Tamborini et al., 2015). Not obtaining a bachelor's degree may be the most detrimental to the socioeconomic prospects of those from the lowest income quintiles. Almost half (45%) of individuals raised in the lowest income quintile will remain there without a bachelor's degree compared with 52% of individuals from the middle-income bracket who will stay in their income bracket of birth or improve their economic standing (Roth, 2019).

Despite the evidence indicating a bachelor's degree can lead to positive socioeconomic outcomes, these outcomes are not uniform across students or institutions. Individuals from lower socioeconomic backgrounds continue to be disadvantaged by the current education system. Inequities in the K-12 system (Garcia & Weiss, 2017), overreliance on standardized test scores (Buchmann et al., 2010), admissions practices that privilege White middle/upper-class experiences (Bastedo & Bowman, 2017; Dixon-Roman et al., 2013), and unwelcoming campus climates (Stuber, 2012) are just a few examples of the systemic barriers that serve to disadvantage students from minoritized[1] backgrounds. These barriers continue to disadvantage students from lower socioeconomic backgrounds; even those who desire to attend higher education are less likely to enroll, persist, and graduate than their middle- and upper-income peers (Giani et al., 2019; The Pell Institute for the Study of Opportunity in Higher Education, 2019). The disadvantages related to access, attainment, and outcomes are even starker for students from lower socioeconomic backgrounds who come from minoritized populations such as Black, Latinx, and Indigenous students who are less likely to enroll in and complete a bachelor's degree than their White counterparts from similar socioeconomic backgrounds (Ma & Savas, 2014; The Pell Institute for the Study of Opportunity in Higher Education, 2019).

Significance to Society

From a societal standpoint, a more thorough understanding of higher education's role in intergenerational mobility is essential due to the relationship between socioeconomic mobility and

[1]I choose to use "minoritized" (Gillborn, 2010) throughout this article in recognition of the role of social institutions, such as higher education, in subordinating individuals through social construction of minority status. In addition, this term recognizes that individuals do not inhabit a minority status in all areas of their lives but in particular environments that uphold the power dynamics of Whiteness in the United States.

the persistence of inequality. In recent decades, economic inequality in the United States has increased to levels not seen since immediately before the Great Depression (Saez, 2018). Today the top 1% of income earners have average incomes more than 40 times those in the bottom 90% (Saez, 2019). Currently, where individuals are born in the income distribution is one of the most significant determinants of where they end up especially at the lowest income distribution. Almost 50% of individuals born into the lowest income quintile will remain there compared to a quarter (23%) of individuals born into the upper-income quintile who will remain there *without* a college degree (Roth, 2019). In a more equitable society, individuals would move more freely both up and down the economic ladder with the circumstance of their birth being less of a determinant of their future socioeconomic outcomes.

Despite the current socioeconomic stratification within the United States, higher education is considered by many as one of the few mechanisms through which individuals can access higher levels of socioeconomic status (Roth, 2019). However, some scholars have suggested that higher education maintains or even exacerbates inequality (Marina & Holmes, 2009; Tsui, 2003) since high-income groups tend to benefit more from higher education (Pfeffer & Hertel, 2015). The maintenance of inequality is especially salient when examining highly selective institutions where only 3.8% of students come from the bottom 20% of the income distribution compared to 77% of students from the top 1%. Yet, these highly selective institutions provide the highest levels of upward mobility for students from lower-income quintiles (Chetty, Grusky, et al., 2017). The current landscape highlights the importance of understanding the role of higher education in intergenerational mobility. The following sections will provide a foundational understanding of the study of intergenerational mobility followed by an overview of current research on the role of higher education in intergenerational mobility.

Socioeconomic Status and Intergenerational Mobility Defined

Intergenerational mobility is challenging to study due to the complexity of defining socioeconomic status; this complexity also makes it difficult to determine the best methods of analyzing movement in status. The American Psychological Association (n.d.) defined socioeconomic status as follows:

> Socioeconomic status (SES) encompasses not just income but also educational attainment, financial security, and subjective perceptions of social class. Socioeconomic status can encompass quality of life attributes as well as the opportunities and privileges afforded to people in society. (para. 1)

Researchers studying intergenerational mobility seek to quantify socioeconomic status by utilizing class status, occupational status, income, earnings, and wealth. Each of these measures conceptualizes intergenerational mobility differently, capturing unique aspects of this phenomenon. However, socioeconomic status is more than just one measure, and even within each of these measures, disagreement exists on how to best capture an individual's or family's socioeconomic status (Erikson & Goldthorpe, 1992; Goldberger, 1989; Goldthorpe, 2000; Hauser & Warren, 1997; Mayer & Lopoo, 2004; Sørensen, 1994; Zimmerman, 1992). For this article, I will utilize socioeconomic status to refer to the spectrum of influences on an individual's or family's status as captured in the definition above.

Researchers have defined upward intergenerational mobility as children obtaining higher socioeconomic status than their parents (Chetty et al., 2014). It is measured by examining the association between parents and children's status with measurement methods varying across disciplines. A stronger association between a parent's and child's status indicates persistence in the transmission of socioeconomic status and less mobility whereas weaker associations indicate less persistence and higher mobility (Fox et al., 2016). In other words, a child who retains their socioeconomic status of birth has a strong association with their parent's status. In contrast, the association weakens or even disappears for children who achieve higher socioeconomic status than their parents. In defining parents and children, researchers have historically focused on the persistence of socioeconomic status between fathers and sons due to the complicated relationship between women and workforce participation (Beller, 2009; Fox et al., 2016; Gregg et al., 2017; Pfeffer, 2014; Torche, 2011); however, more recent research has included mothers and daughters (Beller, 2009).

Approaches to Studying the Role of Higher Education in Intergenerational Mobility

Historically, intergenerational mobility has been an area of quantitative study research by sociologists and economists. In order to understand the compatibility between intergenerational mobility research and research on higher education outcomes, it is essential to understand how the role of education in intergenerational mobility has previously been understood and analyzed. The subsequent sections provide an overview of the theoretical frameworks used to conceptualize how education influences mobility, how researchers examine the role of higher education from both a sociological and economic perspective, the methodologies utilized, and shortcomings in current research.

Theoretical Frameworks for the Role of Education in Intergenerational Mobility

In previous research on the role of higher education in intergenerational mobility, researchers have utilized either human capital theory or signaling/screening as a theoretical framework to explain how obtaining higher education levels contributes to socioeconomic outcomes. Human capital theory proposes that an individual's skills and knowledge are advanced by obtaining higher levels of education, which are then rewarded in the labor market by higher wages. Studies using human capital theory assume that education helps develop productive skills valued in the labor market, inferring causality between higher education and economic outcomes (Becker, 1964; Galiakberova, 2019; Mincer, 1974). Human capital theory also provides a rationale for why parents, especially middle- and high-income parents, invest so much in their children as the more skills an individual acquires the higher their labor market value becomes (Fox et al., 2016; Jerrim & Macmillan, 2015). The same abilities deemed highly desirable by the labor market are also valued by higher education admissions standards such as extracurricular activities (Snellman et al., 2015), enhanced academic preparation through advanced placement courses (Crook & Evans, 2014), and an independent sense of self (Stephens et al., 2019). The acquisition of these skills creates a smoother path through higher education and into the labor market for students whose parents invest in their skills from childhood (Lareau, 2003).

In comparison to human capital theory, signaling/screening theories suggest that education serves as a sorting mechanism for individuals where a degree signals to employers the innate abilities individuals possess for the labor market (Oreopoulos & Petronijevic, 2013; Pfeffer &

Hertel, 2015; Spence, 1974). Signaling/screening theory positions schools as mechanisms for maintaining class structures since career or socioeconomic outcomes are associated with students' backgrounds and inherited characteristics rather than developing desirable skills. Through this perspective, students admitted to higher education are more naturally qualified than those who are not; the attainment of a degree validates and highlights these natural qualifications to the labor market (Arrow, 1973). An alternative interpretation presented by Naidoo (2004) is that higher education is a sorting mechanism based on social and cultural capital in the guise of merit-based criteria. Naidoo's research suggests the returns associated with college are neither the result of innate nor acquired skills but merely having the expected social and cultural capital valued both in higher education and the labor market, reinforcing inequality and power in society through the stratification of opportunity. However, without more empirical analysis of how institutions and students interact, it is difficult to discern which mechanisms or combination of mechanisms are at play.

Methodological Approaches to Intergenerational Mobility

The methods used to examine how education impacts intergenerational mobility differ between economics and sociology as do the analyses used within these respective fields. The following sections will demonstrate how economists' and sociologists' methodological choices impact an understanding of the role of higher education in intergenerational mobility. Additionally, examples of recent studies that have explored the role of higher education in intergenerational mobility will be presented followed by an overview of the shortcomings of the research area especially in capturing the complexities of higher education.

Sociological Approach

In examining mobility from a sociological perspective, researchers operationalize mobility by studying the association between parents' and adult children's social class or occupational status where a higher association indicates less mobility (Torche, 2015). What follows is an overview of how occupational and class status are defined and how researchers utilize them to examine intergenerational mobility.

Occupational Status. Analysis of occupational status looks at occupations grouped into categories to form a hierarchy where status is correlated with other social and economic variables (Hauser, 2010). Researchers use regression analysis to regress children's occupational outcomes on the parent's occupational status with the regression coefficient capturing socioeconomic status persistence. As a measure of socioeconomic status, occupation provides better insight into long-term economic standing as occupation is less volatile than other measures such as income, across a lifetime (Goldberger, 1989; Hauser & Warren, 1997; Torche, 2011). However, Mazumder and Acosta (2015) suggested occupational status may be less consistent today than in the past due to individuals switching occupations more frequently than in previous generations. Historically, education is viewed as the primary avenue for mobility in occupational research (Fox et al., 2016; Torche, 2015), making the level of educational attainment a standard unit of analysis in this area of study.

Social Class Status. Social class research creates groups based on occupational assets such as property or authority in the workplace that impact parts of an individual's life such as income, health, and wealth (Grusky & Weeden, 2008). Social class mobility is less hierarchical than occupational status and focuses less on upward or downward movement than other measures; instead, social class analysis examines barriers to mobility related to ownership of different assets (Torche, 2015). Most social class research uses the classification devised by Erikson et al. (1979), which created classes based on different types of employment relations. These classes are defined by attributes including employer/employees, self-employed, skill level, authority in the workplace (supervisor/nonsupervisor), and sector (urban/agricultural and manual/nonmanual). Analysis of class mobility uses a table to cross classify parents' and adult children's classes to examine movement between class origin and destination. Social class measures were more widely used in research from the 1970s to the 1990s but persisted as a measure of mobility because it captures a broader range of economic conditions thereby making it a more holistic measure of status (Pfeffer & Hertel, 2015).

Economic Approach

Research by economists on intergenerational mobility captures socioeconomic status primarily through individual and family earnings or income. Researchers utilize the regression coefficient to analyze elasticity, attempting to approximate the average percent change in adult children's earnings associated with a 1% change in their parents' earnings (Torche, 2015). Earnings for parents are typically averaged over several years to reduce measurement bias (Mazumder, 2005). To account for fluctuations across an individual's lifetime, earnings for adult children are captured by researchers at the age of 40, which is the age that lifetime earnings have been found to peak thus making it a more accurate measure of potential lifetime earnings (Haider & Solon, 2006; Torche, 2015).

Most researchers choose to examine either absolute or relative mobility. Absolute mobility examines the persistence of socioeconomic status within the context of economic and demographic factors and changes while relative mobility examines persistence excluding structural changes (Chetty, Grusky, et al., 2017). In other words, absolute mobility looks at whether children are better off than their parents within the context of evolving technology, occupational shifts, and demographic changes. In contrast, relative mobility looks at where parents and children are along the spectrum of socioeconomic status (i.e., top or bottom quintile) and asks if children have a higher status than their parents relative to other individuals (Reeves, 2017). The difference between these two measures can be illustrated through a simple example using income as a metric. Consider that at the age of 35, an individual's parent was earning $40,000 a year in 1980, and that individual, now at the age of 35 in 2019, is earning $60,000 (adjusted for inflation). In terms of absolute mobility, one could say this individual has achieved upward intergenerational mobility. In comparison, suppose that the $40,000 earned by the parent in 1980 placed them at the 30th percentile along the income distribution, but the $60,000 earned in 2019 places the individual at the 20th percentile. In this instance, the individual's income would represent downward relative mobility when compared to others in society, meaning this individual is comparatively less well off than their parents (Reeves, 2017).

Intergenerational Mobility and the Impact of Higher Education

One of the consistencies from both economics and sociology on the impact of higher education on intergenerational mobility is that, on average, the effect of parents' status almost disappears for those who obtain a bachelor's degree (Haskins, 2008; Hout, 1983, 1988; Thompson, 2019; Torche, 2015). However, when researchers move beyond averages and disaggregate based on institutional characteristics, differences in outcomes emerge; all students who graduate from higher education do not receive the same socioeconomic results. For example, a 2015 study by Torche found different levels of occupational mobility association for entrepreneurs and those who are self-employed compared to those employed in the professional class. Additionally, Thompson found that while occupational destination was independent of occupational origin for individuals with a bachelor's degree, there were significant differences in wages and family income based on the selectivity of the institution attended. In other words, individuals who fall into similar occupational categories (e.g., investment banking) can still have a different socioeconomic standing based on the selectivity of the institution (e.g., Ivy League vs. public state institution) attended.

Several studies have also explored the ability of institutions to move students up the socioeconomic ladder. In 2017, Chetty, Friedman, et al. created mobility scores for individual institutions, factoring in institutional access and the percent of students who moved from the first to fifth-income quintiles. The researchers used a single score to compare institutions and found that mobility rates varied substantially across institutional types especially when considering institutional selectivity. These scores highlighted that the most selective schools provided high levels of mobility but low levels of access while the inverse was true of open-access institutions. Midtier public colleges provided higher levels of access combined with moderate levels of success. A study by de Alva (2019) utilized Chetty, Friedman, et al.'s methods but used the bottom two income quintiles with similar results. Additionally, this study found that the 10 schools with the highest mobility levels had comparatively lower percentages of first-generation students, students receiving Pell Grants, and Black students.

A 2011 study by Torche sought to examine how different levels of higher education attainment (bachelor's vs. advanced) might impact socioeconomic status persistence across generations. Like Thompson (2019), this study examined multiple socioeconomic status measures that included class status, occupational status, earnings, and income mobility to compare results across measures. The results from this study produced an interesting U-shaped pattern of mobility association when examining occupational status, earnings, and income mobility. This pattern indicated that the strongest association between parents' and children's status was between those without a college degree and those with an advanced degree; the association almost disappeared for those with a bachelor's degree. Expanding on Torche's (2015) work, Oh and Kim (2020) found that the reemergence of socioeconomic association was due to three educational sorting mechanisms advantaging students from higher socioeconomic backgrounds. The three mechanisms were as follows: students (a) obtained financially rewarding but also expensive advanced degrees, (b) attended selective institutions and pursued lucrative graduate degrees in law and medicine, and (c) finished their degrees at an earlier age allowing more years of income growth.

These studies present a snapshot of the research on the role of higher education in intergenerational mobility, demonstrating some of the consistent findings in this area of research. As highlighted in the studies above, institutional selectivity has been a particular area of interest for researchers with results consistently demonstrating that mobility outcomes differ across levels

of institutional selectivity (Carneval & Van Der Werf, 2017; Chetty, Friedman, et al., 2017; de Alva, 2019; Monsen, 2018; Thompson, 2019). Yet, all of these studies have limitations that hinder their ability to fully capture and examine the role of higher education in intergenerational mobility, which I will discuss next.

Shortcomings of Research of Intergenerational Mobility Research on Higher Education

The examination of higher education's role in intergenerational mobility has several limitations that include the complexity of gender dynamics, timing of analysis, overreliance on selectivity in research, and the homogenization of higher education. These limitations make it challenging to completely conceptualize how socioeconomic status is disrupted across generations. This section will explore each limitation in turn.

Historically, research on intergenerational economic mobility has only examined the transmission of socioeconomic status from father to son, excluding mothers and daughters from the analysis due to the challenges associated with their inclusion (Beller, 2009; Fox et al., 2016; Gregg et al., 2017; Pfeffer, 2014; Torche, 2011). The exclusion of mothers and daughters most likely distorts the results of this research as Bailey and Dynarski (2011) found that increases in educational inequality have been primarily driven by women, especially women with high-income parents who attend and graduate from college at higher rates than men (Fry, 2019). With more women graduating from higher education institutions but only men analyzed in mobility research, the impact of higher education on mobility is not fully understood especially as women's labor participation continues to increase (Gregg et al., 2017). Beller found that empirical models that accounted for mothers either individually or the family unit as a whole were more accurate than those only utilizing fathers. It bears noting research on the gender dynamics in intergenerational mobility operates under both cisgender and heterosexual assumptions, excluding those outside of traditional gender binaries and heterosexual relationships, which is an additional limitation of this research.

Considerations of race/ethnicity are also limited in intergenerational mobility research despite persistent differences in social and economic outcomes across racial and ethnic groups (Akee et al., 2017). The exclusion of race/ethnicity from the research is primarily due to small sample sizes for these groups found in many of the commonly used data sets thus leading researchers to aggregate racial groups or focus only on White, Black, and Latinx populations (Bloome, 2015; Bloome & Western, 2011). The lack of consideration within and across racial and ethnic groups obscures socioeconomic differences and differential outcomes from higher education (Noel, 2018). Additionally, race, class, and gender do not exist as distinct experiences; these identities are interrelated and cannot be parsed out and studied in isolation (Lundy-Wagner, 2012). Disregarding the interrelated nature of race/ethnicity, gender, and socioeconomic status ignores the realities of the student demographics of today's student populations.

Research on intergenerational mobility also tends to over rely on institutional selectivity when seeking to disaggregate the impact of higher education. Selectivity is a broad term conflated with institutional quality (Astin, 2016). Barron's Admissions Competitiveness Index, commonly used in such analysis, incorporates a proprietary formula to calculate selectivity but likely factors in college admissions standards, applications numbers, and student preentry characteristics (National Center for Educational Statistics, 2014). Utilizing selectivity alone to differentiate institutions overlooks some of the ways in which advantages might be manifest within these institutions. Many studies examining the impact of major on postgraduation occupations and

earnings have suggested that major choice may be more influential than selectivity (Arcidiacono, 2004; Eide et al., 2016; Ma & Savas, 2014; Thomas & Zhang, 2005). However, even the influence of a major is complicated by students' gender and race (Ma & Savas, 2014). Another confounding factor is the impact of peer effects on student outcomes. Peer effects research examines the influence of peer academic ability and other peer characteristics such as family income, social capital, and leadership ability on individual student's academic performance (Carrell et al., 2008; Winston & Zimmerman, 2003). Research on peer effects suggests that these factors positively impact an individual's academic achievement (Carrell et al., 2008; Ficano, 2010; Winston & Zimmerman, 2003; Zimmerman, 2006). However, high achieving students (defined by SAT scores and high school grade point average) as well as students with more social capital tend to be concentrated in more selective institutions (Buchmann et al., 2010; Rivera, 2015), begging the question of whether it is institutional selectivity or the peer characteristics that influence mobility.

Building off the limitations presented in the previous paragraph, the final limitation of research on intergenerational mobility is the primary focus on inputs and outputs of higher education through the lens of what Berger and Milem (2000) termed structural-descriptive features. These features include selectivity, size, control (private vs. public), location, or student demographics. Even Chetty, Friedman, et al.'s (2017) study, which included a more robust set of institutional variables than previous studies, primarily relied on structural-descriptive level variables. I illustrate this focus in Figure 1. The image provides a visual representation of the current state of research on the role of higher education in intergenerational mobility. Previous researchers have examined the relationship between parents' socioeconomic status and the student socioeconomic outcomes only through the structural demographics of the institution attended, comparing those socioeconomic outcomes of those who do not attend higher education. The model highlights how much of the current research misses many vital aspects of institutional and student characteristics located below the surface level elements when interpreting the impact of attending higher education.

However, below these surface-level elements, there are more complex factors such as student demographics, students' behaviors and experiences, and organizational and environmental aspects of the institution itself. These factors are influential on students' outcomes but are not considered by researchers in most research on intergenerational mobility. Higher education institutions are complex organizations that cannot be understood through these surface-level features alone. Likewise, students attending institutions, even those from similar social classes, bring diverse characteristics and experiences to campus beyond simple demographics. In order to understand the influence of these more complex student and institutional factors on intergenerational mobility, I turn to the discipline of higher education research in order to examine how the deeper relationship between students and institutions might shape student trajectories into higher levels of socioeconomic status.

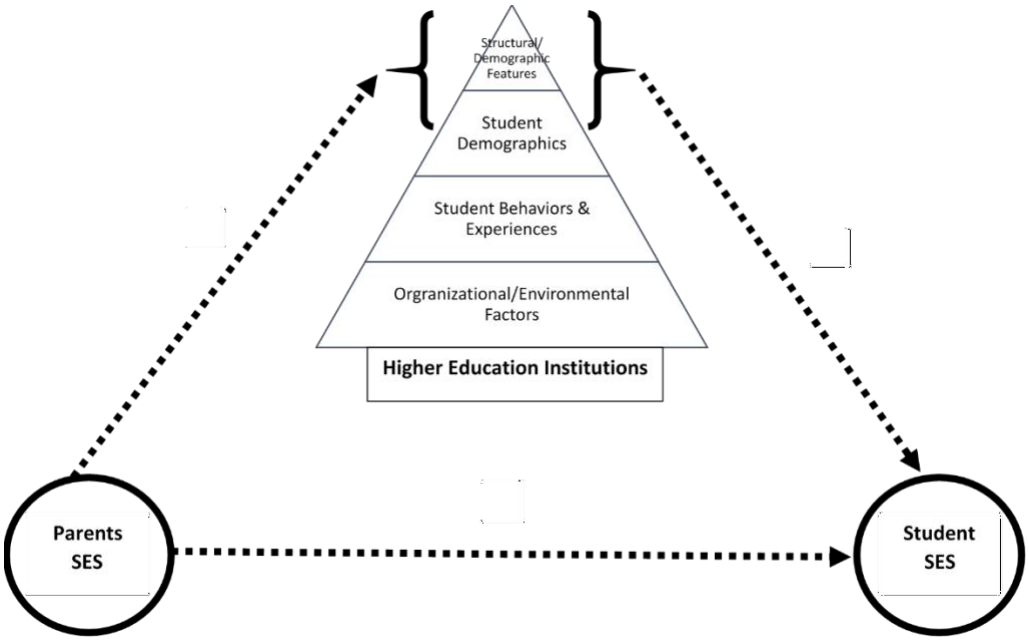
Using Higher Education Research to Understand Intergenerational Mobility

To rectify the shortcomings and limitations in existing research on the role of higher education in intergenerational mobility, researchers should draw from student development and higher education research to delve below the structural/demographic elements of higher education and explore student demographics, experiences and behaviors, and organizational/environmental factors (see Figure 1). Research on higher education and student development empirically explores the complex interaction between institutions and students, providing evidence of differential

outcomes resulting from the interaction between students and institutions (Mayhew et al., 2016). In order to expand an understanding of higher education's role in intergenerational mobility, the complex interaction between students and institutions must be taken into consideration by researchers. Attending higher education can no longer be treated as a dichotomous experience. In order to consider how researchers might expand the conceptualization of how the interactions between students and institutions impact socioeconomic outcomes, the following sections examine theories and research focused on student persistence, student engagement, and ecological systems.

Figure 1

Conceptual Model of the Intersection of Research on Intergenerational Mobility and Higher Education Outcomes



Student Persistence Theories

Student persistence, defined by the National Student Clearinghouse Research Center (2015) as "continued enrollment (or degree completion) at **any** higher education institution" (Definitions sec.), is a critical component to consider in understanding intergenerational mobility since students who do not complete their degree benefit far less from their college experience than those who graduate (Giani et al., 2019). Students who do not complete their degree may find themselves in a more challenging economic situation due to the burden of repaying student loans (Hillman, 2014). Tinto's (1993) institutional departure model has served as a foundational theory for understanding a student's decision to remain in or depart from higher education. The model focuses on the importance of students integrating into both the academic and social aspects of the college community and adopting the values, norms, and behaviors of that community. The institutional departure model seeks to demonstrate how students' interactions with the institution impact their

eventual decision to retain or drop out, factoring in students' preentry attributes, intentions, external communities, and institutional experiences on this decision.

However, Tinto's (1993) model has been criticized for its normative focus on traditional students at residential institutions and lack of consideration of students from minoritized backgrounds (Cabrera et al., 1993; Guiffrida, 2006; Nora, 2002). In seeking to expand on the institutional departure model, Bean and Metzner (1985) focused on nontraditional students to develop their conceptual model of nontraditional undergraduate student attrition. Unlike Tinto's model, the conceptual model of attrition incorporated external environmental factors, finding that strong environmental supports compensated for weak academic support and low levels of academic success. These findings were further confirmed by Cabrera et al. (1993) who examined the convergence of Tinto's and Bean and Metzner's models, concluding persistence was affected by a successful match between students and institutions. Additionally, external factors, including parental approval, had a strong indirect influence on that match.

Several scholars have also criticized Tinto's (1993) model for failing to recognize cultural variables that might influence persistence (Guiffrida, 2006; Hurtado & Carter, 1997; Nora, 2002; Tierney, 1992). As Guiffrida pointed out, Tinto's model is inapplicable to students from minoritized backgrounds because it describes the developmental process within a predominantly White culture. The core of the model encourages detachment from cultural traditions and supportive relationships, which may be significant in the success of students from minoritized backgrounds (Guiffrida, 2006; Yosso, 2005). In proposing a more culturally relevant model, Guiffrida suggested editing the model to focus on connection instead of integration as connection recognizes students' relationship to the institution without requiring students to break ties to their former community. In order to create a more culturally sensitive model, students' cultural connections and motivational orientation need consideration in addition to the influence of individualist and collectivist cultural norms on those orientations (Guiffrida, 2006; Kuh & Love, 2000).

In examining factors that influence persistence, research has found student completion is impacted by the intersectionality of various combinations of sociodemographic, academic achievement, familial, experiential, and institutional characteristics (Oseguera, 2005). For example, student academic performance, typically measured by student grade point average, is one of the strongest predictors of persistence (Pascarella & Terenzini, 2005). Yet, delving deeper into activities that, on average, increase grade point average such as engagement with faculty, participating in study groups, joining a student club, or meeting with an advisor, Schudde (2013) found significant differences across socioeconomic status. This study suggests it is high-income students who reap the academic performance rewards of utilizing institutional resources, not necessarily low-income students. Socioeconomic status can also impact the educational choices available to students such as the number of credits taken per year. Students who take full credit loads are more likely to persist to graduation (Pfeffer & Goldrick-Rab, 2011). Students from higher socioeconomic backgrounds were more likely to persist to graduation even when taking lower credit loads than their low-income counterparts. In other words, not taking a full credit load was more detrimental to students' likelihood of persisting for students from lower socioeconomic backgrounds

Faculty and peer relationships have also played a significant role in student persistence through their role in facilitating connections to the academic environment (Hong et al., 2011; Hu & Kuh, 2002; Schreiner et al., 2011). Faculty mentorship is especially important for students from minoritized backgrounds (Brooms & Davis, 2017; Crisp & Cruz, 2009; Newman, 2011; Patton &

Harper, 2004). Additionally, students' connection to an institution is often facilitated through how the institution manifests a sense of concern for the growth and development of its students through the actions of faculty, staff, and administrators (Braxton et al., 2004). Quality interactions between students and faculty can increase students' confidence in the institution (Bean & Eaton, 2000) and, in turn, students' self-confidence that they can succeed in the environment (Braxton et al., 2004). However, some research suggests that students who are the first in their family to attend college or come from lower socioeconomic backgrounds may be less likely to seek out these beneficial relationships (Hu & Kuh, 2002), which may be due to a lack of supportiveness from the institution (Schademan & Thompson, 2015). Like faculty, peers also contribute to institutions' social systems and influence the degree to which students feel a fit between themselves and the institution (Wolniak et al., 2012).

Student Engagement Theories

Student engagement theories broadly refer to "students' exposure to and participation in a constellation of effective educational practices at colleges and universities" (McCormick et al., 2013, p. 47). Student engagement theories emerged in the 1990s through Kuh's work, building on Astin's (1984) foundational work on the student involvement model. In the student involvement model, Astin (1999) defined involvement as "the amount of physical and psychological energy that the student devotes to the academic experience" (p. 518). Astin (1984) suggested that the "effectiveness of any educational policy or practice is directly related to the capacity of that policy or practice to increase student involvement" (p. 519), or as Kuh (2008) stated,

> student engagement represents two critical features. The first is the amount of time and effort students put into their studies and other educationally purposeful activities … the second component of student engagement is how the institution deploys its resources and organizes the curriculum, other learning opportunities, and support services to induce students to participate in activities that lead to the experiences and desired outcomes such as persistence, satisfaction, learning and graduation. (p. 44)

This definition places the responsibility not just on students to engage but also on institutions to intentionally provide opportunities for and engage students in educationally purposeful activities. As Quaye and Harper (2014) emphasized, it is especially critical for institutions to foster conditions for students to engage in college differently than when they served a more homogenous population. Institutions cannot just provide opportunities for students and assume they will engage and interact with diverse peers. Instead, institutions must be intentional and thoughtful in creating a customized educational experience that acknowledges the diverse backgrounds and experiences of the current populations and connects them with campus (Quaye & Harper, 2014).

Extensive research demonstrates the benefits of student engagement, including cognitive gains, inter and intrapersonal development, academic achievement, persistence, and future civic engagement (Mayhew et al., 2016). Specifically examining the influence of engagement on postgraduation outcomes such as earnings, studies have indicated a generally positive impact of being engaged. However, there are differences in postgraduation earnings based on student-level factors, including gender, race/ethnicity, and students' choice of major (Hu & Wolniak, 2013; Wolniak & Engberg, 2019). High-impact practices differed in their impact on initial earnings based

on major choice (Wolniak & Engberg, 2019). The researchers suggested that the alignment between students' major, high-impact practice, and career interests leads to positive earnings rather than the high-impact practice or major alone.

Ecological Systems Theories

Ecological systems theories further an understanding of students' experiences within higher education institutions, presented by student persistence and engagement theories, by exploring the complex educational ecosystem that influences students' experiences and outcomes. The foundational ecological systems theories comes from Bronfenbrenner (1994) who studied the interaction between students and context and how it shaped their experience. More recent scholarship has suggested that ecological systems theories models are a more comprehensive way to conceptualize and understand students' experiences (Renn, 2003). These models serve an essential role in shifting the focus of research on student outcomes from focusing on students and their behaviors to institutions' behaviors, shifting from a deficit perspective focused on student behavior to examine the context and institutional responsibility in student success.

Focusing on how organizational elements of higher education impact students, Berger and Milem (2000) utilized organizational theory to create a multidimensional model of organizational behavior to understand how students' interaction with campus environments impacted their behavior. In developing the model, the researchers looked beyond structural-demographic features (e.g., size, control, selectivity, Carnegie type, location) of institutions and considered organizational behavior categories (bureaucratic, collegial, political, symbolic, and systemic) to examine how institutions interact with student characteristics to impact outcomes. The shift away from structural-demographic features emphasized that institutions' effects on student outcomes are more a function of what they do and how they do it than what they are (i.e., public vs. private). Using the model to examine student persistence, Berger (2000) noted that organizations that students perceived to fall into the collegial, symbolic, or systemic categories of behavior appeared to enhance students' persistence. However, the mechanisms that enhanced persistence differed between the categories. Findings from Berger's (2000) work indicated that the organizational features influencing student integration included the alignment of resources with student success and the student body's homogeneity.

To examine the interaction between institutions and students from diverse backgrounds, Hurtado et al. (2012) created the multicontextual model for diverse learning environments as a conceptual framework to understand the impact of campus climate on the learning and development of students. The model centers the multiple social identities of students and the dynamics of how those identities interact with both curricular and cocurricular experiences, influencing students' perceptions of the overall campus climate. The model conceptualizes campus climate as a multidimensional concept consisting of institutional-level (historical legacy, organizational structure, and compositional diversity) and individual-level (psychological perceptions and behavioral experiences) dimensions. While there are limited studies that have utilized Hurtado et al.'s model to understand student outcomes (Crisp et al., 2017), studies suggest the importance of this model for this area of research. In one study, positive perceptions of campus climate (as welcoming, friendly, respectful) increased students' commitment to the institution and likelihood of returning for their second year (Johnson et al., 2014). Additionally, positive institutional racial climates have been associated with higher persistence rates (Arana et al., 2011; Crisp et al., 2017) and degree completion (Museus et al., 2008).

Finally, Perna and Thomas's (2006) conceptual model of student success combines research across education, psychology, sociology, and economics to theorize mechanisms through which students achieve success within higher education with the additional layer of social, economic, and policy context. Including the social, economic, and policy context acknowledges state and federal policies impacting higher education funding, financial aid, Pell Grants, TRIO programs, and work study, which have a direct impact on students from lower socioeconomic backgrounds (Mitchell et al., 2017; Mitchell et al., 2019).

To summarize, research by higher education scholars has provided a better understanding of the complex interactions between students and institutions (Mayhew et al., 2016), and most intergenerational research agrees that higher education plays a role in disrupting the persistence of socioeconomic status (Chetty, Friedman, et al., 2017; de Alva, 2019; Pfeffer & Hertel, 2015; Torche, 2011). Yet, the two areas of study remain separate. The following section provides ways to integrate these complementary research areas to reconceptualize how one studies the role of higher education in intergenerational mobility.

Reconceptualizing the Role of Higher Education in Intergenerational Mobility Research

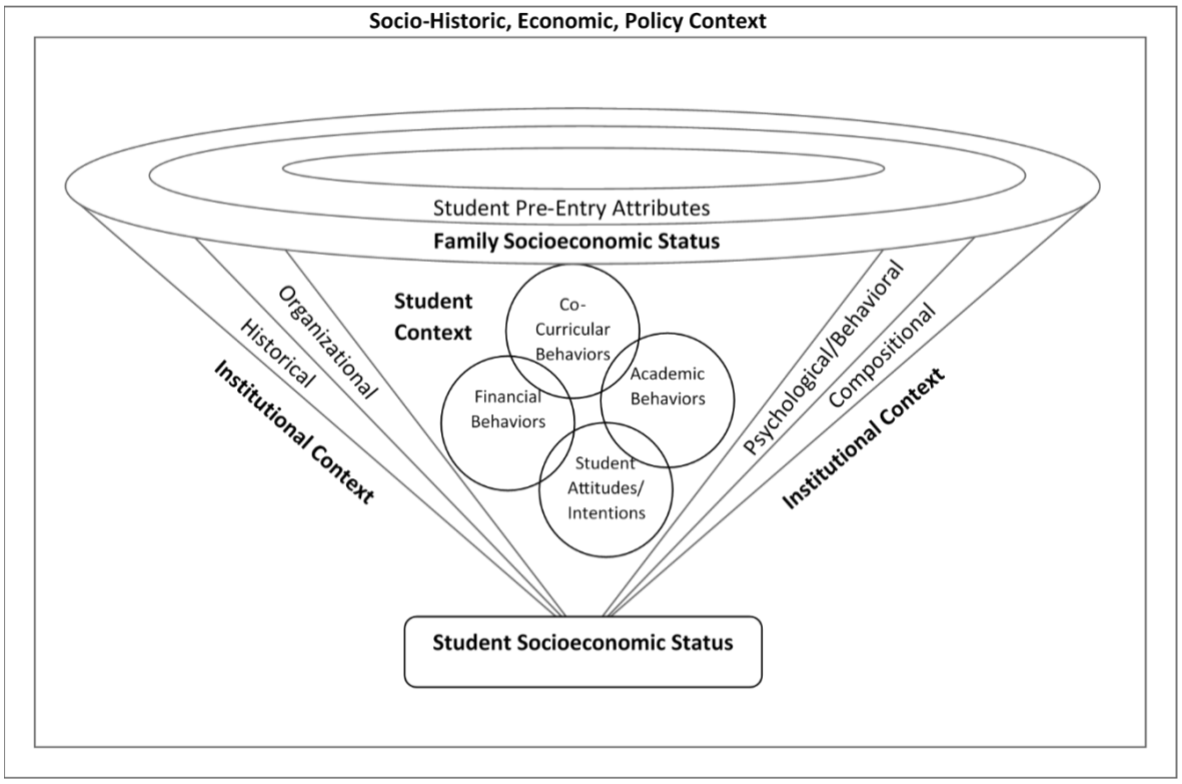
In order to truly understand higher education's role in disrupting the persistence of socioeconomic status, different theoretical models and methodological approaches are needed to build a more complete picture of how higher education influences this mobility. Many students and their families choose to take on debt to pursue higher education, believing that obtaining a bachelor's degree will provide higher levels of socioeconomic status. However, as the research above highlights, this is a more complicated outcome than is typically presented by institutions and policymakers. Students experience different economic outcomes based on individual characteristics, the type of institution they attend, the major they choose, and the opportunities they engage in while enrolled (Altonji et al., 2012; Benson et al., 2017; Hilmer & Hilmer, 2012; Hu & Wolniak, 2013; Melguizo & Wolniak, 2012; Robst, 2007; Wolniak & Engberg, 2019).

New Theoretical Perspective

From a theoretical perspective, a more integrative approach across disciplines is needed to understand better higher education's role in disrupting socioeconomic status. I propose the model in Figure 2 as a way to integrate research on higher education outcomes with that on intergenerational mobility. This holistic model provides a visual of how student and institutional characteristics interact and how that interaction influences the pathways students take after graduation. The model seeks to fill the gap in current intergenerational mobility research highlighted in the literature review where researchers have focused primarily on institutional selectivity to differentiate institutions. Instead, it draws from student persistence, student development, and ecological systems research to examine how the institutional context and students may interact to promote or hinder mobility. With the model, I seek to bridge the gap between research on intergenerational mobility and higher education by providing a framework to interrogate how students move into and through higher education and how that process impacts their socioeconomic outcomes.

Figure 2

Integrative Model of Higher Education and Intergenerational Mobility



In this model, students enter higher education through the context of their family's socioeconomic status, which has a direct impact on student's preentry attributes such as academic preparation, test scores, goals, institution selection, etc. (Crosnoe & Muller, 2014; Dixon-Roman et al., 2013). These elements impact not just the type of institutions students have access to (Griffin et al., 2012; Kim & Gasman, 2011) but also the social and cultural resources they possess (Yosso, 2005). Upon entry into the institutional context, students do not simply detach from their family background or preentry characteristics (Yosso, 2005). Yet, as they become more connected with their academic community, these influences and factors may become less significant as the institutional environment influences skills, knowledge, and experiences. Feeling connected to and supported by the institutional environment is related to higher levels of persistence and graduation (Guiffrida, 2006). The model suggests this influence could also extend to better socioeconomic outcomes.

The institutional context includes elements from Hurtado et al.'s (2012) model and Berger and Milem's (2000) conceptual model for researching the organizational impact on student outcomes. These models help define the institutional context not just in terms of structural-demographic features but also as a multidimensional environment made up of institutional-level (historical legacy, organizational structure, and compositional diversity) and individual-level (psychological perceptions and behavioral experiences) dimensions. These organizational-level elements create the context in which students learn and affect the opportunities available to them

and the environmental context in which they exist. Institutional decisions around the types of support services available (Mitchell et al., 2017; Mitchell et al., 2019), availability of opportunities such as high-impact practices (Kuh, 2008; Quaye & Harper, 2014), number of courses offered (Bound et al., 2009; Bound & Turner, 2007), institutional diversity (Stout et al., 2018), and sense of belonging (Museus et al., 2008) for students from minoritized populations are just a few examples of the types of organizational elements that may either foster or impede students' socioeconomic outcomes.

Additionally, the institutional context in this model interacts with the student and family context to shape students' experience within higher education. The student context is informed by Tinto (1993), Astin (1999), and Perna and Thomas (2006) to conceptualize the complex nature of students' experiences within higher education. Students' academic, financial, and cocurricular behaviors and attitudes and intentions interweave to impact their pathway through the institution and their socioeconomic status following graduation. These behaviors affect not just how quickly students move through higher education but also the need to take on student debt (Goldrick-Rab et al., 2016), major choice (Rubin, 2012; Wolniak & Engberg, 2019), credit hours taken (Pfeffer & Goldrick-Rab, 2011), and the ability to engage in cocurricular experiences such as internships (Schudde, 2013) thereby creating different pathways for students following graduation. These behaviors have already been linked to positive outcomes such as persistence, graduation, and postgraduation employment thus making it reasonable to suggest they may also impact intergenerational mobility. Finally, all of these elements are situated within the sociohistoric, economic, and policy context that influences all aspects of this model. Decisions such as state funding for higher education shape the behaviors higher education administrators engage in to sustain their institutions, which have a trickle-down effect on student-level decisions such as who gets admitted and what types of resources are available. This model highlights that students do not merely pass through institutions on their way to higher socioeconomic status but are fundamentally altered by their interactions within institutions. The relationship between students and institutions impacts their postgraduation outcomes, including socioeconomic status.

Future Inclusive Methodological Approaches

From a methodological standpoint, exploring approaches to capturing multidimensional socioeconomic status versus unidimensional could provide better intergenerational mobility measures. As discussed previously, methodologies focusing on class, occupational status, income, wealth, or earnings capture pieces of socioeconomic status and intergenerational mobility, but no one measure captures them fully (Torche, 2011). By exploring methods of analysis that utilize multiple intergenerational mobility measures, a more complete picture may begin to emerge.

Individuals' demographics also impact how socioeconomic status is experienced (de Alva, 2019; Fox et al., 2016); therefore, ensuring data can be disaggregated to examine how race/ethnicity and gender impact intergenerational mobility is crucial. While measuring the persistence between fathers and sons is methodologically simpler, it also ignores roughly half of the United States population; not to mention ignoring those who identify as nonbinary. Therefore, methods that can capture all individuals regardless of gender should continue to be developed.

Additionally, recognizing that families with two heterosexual parents is one of many possible family structures is essential for more inclusive methodologies. Future research also needs to adjust for nontraditional or nonlinear career trajectories such as stopping out of the workforce to care for children or aging parents, which is an experience that is relevant for all genders (i.e.,

not just women). Creating research methods that allow for the inclusion of all types of families and individuals would ensure a more accurate and inclusive examination of intergenerational mobility.

Conclusion

Understanding the role of higher education in intergenerational mobility is essential for reducing economic inequality in the United States and providing broader access to opportunity for all citizens. While economists, sociologists, and higher education scholars have examined pieces of this phenomenon, there is currently no comprehensive research that combines these areas to understand how interactions between students and institutions impact intergenerational mobility. In order to better explore this relationship, this review of literature combined research from sociology, economics, and higher education to propose a new conceptual model integrating these research areas. By combining these fields of study with more sophisticated methodologies, better insight into how higher education institutions and students interact may emerge. This insight could provide institutional administrators and policymakers with a better understanding of how to support students from lower socioeconomic backgrounds, resulting in higher bachelor's degree attainment for students from diverse backgrounds.

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