ARE ALL COLLEGE DEGREES EQUALLY EQUALIZING?

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A college degree is widely thought to level the playing field for students from different social class backgrounds. However, growing stratification between and within colleges raises the question of whether all types of college degrees are equally equalizing. We investigate this question using data from the 1993/2003 Baccalaureate and Beyond. Results from regression analyses show that, for men, institutions and majors not associated with the culture of a particular social class are most equalizing. For women, most institutions and majors, regardless of their association with a particular social class, are close to equalizing. Using the Blinder-Oaxaca decomposition method, we also test the extent to which the earnings gap between students from different class backgrounds is best explained by their different distribution across institutions and majors or by the differences in the returns to them. We find that distributional differences explain the largest percent of the gap for the full sample, while differences in returns to the same experiences explain the majority of the wage gap for graduates who end their educations after receiving a bachelor's degree. We conclude that in a time of high levels of horizontal stratification, some degrees are more equalizing than others.

INTRODUCTION

A college degree both facilitates social mobility and reinforces class privilege (Blau and Duncan 1967; Stevens, Armstrong, and Arum 2008). Access to and retention in college remains highly stratified by students' class background, but many landmark studies find that individuals who possess a college degree receive equitable earnings regardless of their class origin (Astin and Oseguera, 2004; Bastedo and Jaquette 2011; Blau and Duncan 1967; Hout 1988; Torche 2011). In this way, access to college reinforces class privilege, while graduating from college not only alleviates class inequality but severs the link between class origin and class destination (Blau and Duncan 1967; Hout 1988; Torche 2011).

However, the idea that a college degree levels the playing field for students from different class backgrounds may conceal more than it reveals. In the contemporary higher education landscape, a college degree is not one thing. From the mid 20th century through the 1990s, the number of colleges rapidly expanded; colleges went from being able to accommodate 20% of American 18 – 22 year olds to being able to serve 80% of them (Fischer and Hout 2006). There are now over 4,200 colleges and universities (Scott 2015). Much of the expansion has occurred at the level of community colleges, but the past fifty years have also witnessed a doubling of enrollments at four-year institutions (Deil-Amen 2015). At the same time, the number of highly selective colleges has remained relatively steady, creating a hierarchical field in which there are few slots in the most selective universities and many in the least selective (Roksa et al. 2007). In this way the expansion of higher education coincided with the "the solidification of institutional hierarchies" (Roksa et al. 2007:165). Though institutional hierarchies occur on many dimensions, one of the most considered is institutional selectivity (Pascarella et al. 2006). Institutional selectivity is an important axis of differentiation as it relates to students' characteristics and experiences, services offered by colleges, available networks, and earnings (Gerber and Cheung 2008; Hoxby 2009).

College degrees are not only heterogeneous by institutional selectivity, but they are internally heterogeneous as well. Each college typically offers dozens of majors, each of which offers distinct sets of knowledge and experiences. Because of the diversity of experiences in different majors, some scholars claim that "college major can be one of the most important decisions a student can make" (Porter and Umbach 2006:429). Major choice is also important because, like institutions, majors are viewed hierarchically and associated with unequal subsequent earnings (Carnevale, Cheah, and Hanson 2015; Davies and Guppy 1997; Mullen

2010; Rumberger and Thomas 1993). In particular situations, lifetime earnings even vary more between college graduates with different majors than between college and high school graduates (Kim, Tamborini, and Sakamoto 2015).

Rather than a single entity, higher education is then better viewed as "a complicated mosaic, a richly differentiated tapestry, revealing a hierarchically arrayed system of institutions and programs" (Davies and Guppy 1997:1417). Though this insight is far from new, it is rarely considered in conjunction with the idea of a college degree as a social leveler. Considering it suggests that a better question than *whether* a college degree is associated with equal earnings for students from different class backgrounds is *what kinds* of college degrees are most equalizing. Reframing the question in this way allows for a better understanding of the localized and differentiated ways in which inequality is reproduced or alleviated through higher education.

The processes by which specific institutions and majors become associated with more or less equality in earnings for students from different class backgrounds are also unclear. Previous research on class wage gaps focuses on distributional differences and returns to a college degree for students of different class origins (Ma and Savas 2014; Torche 2011).[1] Yet, while differences in distributions and returns offer an important starting point, they cannot tell us why students from different class backgrounds may be allocated disproportionately across institutions and majors or why they receive unequal earnings for the same degrees. To address this gap, we import the theories of effectively maintained inequality (Lucas 2001) and cultural fit (Armstrong and Hamilton 2013; Bourdieu and Passeron 1977) into the study of the meritocratic potential of college degrees. Doing so provides competing predictions as to which degrees are most equalizing for students from different class backgrounds and by what mechanism – distribution or returns – inequality occurs.

In addition, to the extent that there is an overall class wage gap, previous studies do not reveal if these differences are primarily associated with differences in distributions of students across institutions and majors or differences in returns to them. This distinction is important as it points to different potential remedies to inequality. To address it, we borrow methods commonly used to study the gender wage gap to instead study the class wage gap. Using the Blinder-Oaxaca decomposition method, we provide, to the best of our knowledge, the first evidence that the overall class wage gap among college graduates is driven by inequalities both in distributions and returns to institutional selectivity and major, as well as to SAT score, GPA, hours worked, and urbanicity.

This article updates studies on the leveling power of a college degree by taking into account one of American higher education's defining features – horizontal stratification. We first review the literature on returns to college degrees, institutional selectivity, and major. We highlight that it is often unclear how students from different class backgrounds are distributed across educational units and to what extent they receive equal returns from them. Second, we introduce two theories that offer competing predictions regarding which degrees are most equalizing and by what mechanism equalization occurs. Third, we describe our data. We use the Baccalaureate and Beyond Longitudinal Study (B&B) – a nationally representative and longitudinal data set that measures students' earnings ten years after they graduate from a four year college. As current classification schemes are not appropriate for testing theories of why some degrees are more equalizing than others, we also present a new way of grouping majors. Fourth, we present our key findings. We show how two key "axes of stratification" (Davis and Guppy 1997:1418) – institutional selectivity and major – relate to the equalizing power of different college degrees. We also provide preliminary evidence as to why class wage gaps vary

by institutional selectivity and major and analyze what factors are most associated with an overall class wage gap among college graduates. Taken together, our findings provide reasons to update the classic idea that a college degree severs the link between class origin and class destination, and to instead conclude that the extent to which ties are severed depends on what kind of college degree students obtain.

BACKGROUND

College degrees now yield unprecedented returns, with college graduates earning 90% more than their high-school-educated counterparts (Autor, Katz, and Kearney 2008). Landmark studies show that these returns are equally distributed to students from different class backgrounds (Attwell et al. 2007; Choy 2001; Hout 1988; Ishida, Muller, and Ridge 1995; Pfeffer and Hertel 2015; Torche 2011). However, other studies cast doubt on these claims, suggesting that a college degree does not level the playing field for graduates with unequal social origins (Armstrong and Hamilton 2013; Bowen, Kurzweil, and Tobin 2005; Ma and Savas 2014; Rivera 2015; Walpole 2003).

The question of whether a college degree produces a class meritocracy, however, overlooks the fact that colleges have become more stratified over the last fifty years (Davies and Zarifa 2012; Roksa et al. 2007). One axis of increasing stratification is by institutional selectivity within four-year universities (Roksa et al. 2007). Students from lower class backgrounds are overrepresented at low selectivity universities and underrepresented at highly selective institutions (Astin and Oseguera 2004; Pascarella et al. 2004), and the percent of low-income students at highly selective universities has not increased over the last four decades (Bastedo and Jaquette 2011). The uneven spread of students from different social classes into low- and high-

selectivity institutions may reproduce inequality as the former tend to earn less than the latter (Gerber and Cheung 2008). However, it is unclear whether all students receive the same returns from attending an institution of the same selectivity, or whether the returns to institutional selectivity vary by students' class background.

College selectivity is not the only stratifying mechanism in higher education. Scholars recognize that majors operate as within-institution tracks that are associated with different earnings (Armstrong and Hamilton 2013; Kim, Tamborini, and Sakamoto 2015; Pascarella and Terenizini 2005). Majors are viewed as so stratifying that some scholars contend that major is even more consequential for subsequent earnings than the institution attended (Carnevale, Cheah and Hanson 2015; Ma and Savas 2014). In general, students who major in science, technology, engineering, health, and business considerably out earn students who major in the fine arts, humanities, and education (Carnevale, Cheah and Hanson 2015). Scholars disagree about whether students from different class backgrounds are proportionately distributed across high-earning majors. Some contend that class background is not or only weakly associated with major (Bowen, Kurzweil, and Tobin 2005; Torche 2011; see Xie, Fang, and Shauman [2015] for the relationship between majoring in STEM and class background in particular) while others maintain that students from lower class backgrounds are more likely to enter majors associated with high earnings (Davies and Guppy 1997; Goyette and Mullen 2006; Ma 2009). In addition to the lack of clarity around the distribution of students into high earnings majors, it is also unclear if each major offers the same returns to students from different class backgrounds. That is, students from some class backgrounds may benefit more than students from other class backgrounds even when they enroll in the same major.

Though many studies look at the returns to institutional selectivity and major, few look at what levels of institutional selectivity and majors are most associated with equal earnings for students from different class backgrounds. The closest related work finds that low-income students, compared to high-income students, benefit more from attending college in general and attending high-selectivity colleges in particular (Brand and Xie 2010; Dale and Krueger 2002). These studies, however, examine the returns of particular college experiences for each group in comparison to each group's other options, rather than looking at how students from different class backgrounds fare given that they enter the same tracks. Another study (Dale and Krueger 2014) suggests that class-disadvantaged students gain disproportionately from attending high-selectivity institutions, but their sample includes only 34 schools, few of which are of low or moderate selectivity. Similarly, Wolniak (2008) and his colleagues study the link between family income and graduates' earnings by major for students who attended a set of Appalachian colleges. However, they do not address which majors are most equalizing for students from different class backgrounds. Hansen (2001) does suggest that majors are more equalizing when they are associated with "hard" and measurable skills, but her sample comes from a Norwegian sample born from 1950 – 1966, making it hard to compare to the contemporary United States.

We use national data from the United States to build upon prior studies. In particular, we take into account growing horizontal stratification between and within four-year colleges. In doing so, we ask whether some institutions and majors are associated with more equal earnings for students from different class backgrounds than others. We also consider whether any unequal earnings we observe are more driven by the distribution or returns to institutional selectivity and major.

THEORY

Examining the leveling power of a college degree in the context of horizontal stratification raises the question not only of what degrees are most and least equalizing, but why variation exists. We make predictions about what types of institutions and majors are most equalizing by drawing upon two theories: effectively maintained inequality (EMI) and cultural fit. We focus our discussion of each theory on two processes: the *distribution* of students into institutions and majors and the *returns* to institutions and majors. By returns we mean the earnings students from different class backgrounds receive given that they entered a particular institution or major.

Effectively maintained inequality (Lucas 2001) holds that individuals from advantaged class backgrounds obtain quantitatively more education when possible. However, when a level of education becomes common, as is the case with obtaining a college degree, the class-privileged will seek qualitative educational advantages. In terms of a college degree, two key qualitative advantages correspond to horizontal stratification: institutional selectivity and major (Roksa et al. 2007). According to EMI, the class-privileged will disproportionately *access* qualitatively more advantageous education. In this case, EMI predicts that students from higher class backgrounds will be disproportionately distributed in the institutions and majors associated with the highest earnings. EMI is silent about the *returns* students obtain from qualitatively similar educational experiences. We interpret this silence to mean that the returns to accessing the same type of education would be equal for students from different class backgrounds. Inequality is then a result of access, not returns. All degrees would be equally equalizing to the extent that they are equally accessible.

Fit theory offers a different set of predictions. It suggests that students from disadvantaged class backgrounds do best when they find institutions and majors that are most

supportive of people like them (Armstrong and Hamilton 2013; Bourdieu and Passeron 1977). Students from different class backgrounds have different sets of cultural capital – tastes, worldviews, communication styles, and knowledge of how to navigate institutions (Bourdieu and Passeron 1977; Bourdieu 1984; Lamont and Lareau 1988). Furthermore, gatekeepers reward different sets of cultural capital, but the exact set of cultural capital they reward varies by institutional selectivity and major. According to fit theory, students from different class backgrounds will sort themselves into institutions and majors that match their cultural capital as these are the most comfortable for them (Bourdieu and Passeron 1977). The distribution of students into institutions and majors will then vary by class background, but it will be based on cultural fit rather than earning potential. Yet, some students will enter institutions and majors where there is a mismatch between their cultural capital and the gatekeeper's expectations. In these cases, gatekeepers will negatively judge students with the mismatch; the returns in earnings to being in these settings will be lower than for students who experience a match between their cultural capital and gatekeepers' expectations. Because cultural capital is correlated with social class, returns to institutional selectivity and major will then vary by students' class background (Bourdieu and Passeron 1977).

We suggest that fit theory can operate at the level of institutional selectivity and major. At the institutional level, low selectivity institutions are often designed to serve class-disadvantaged students. They may, for example, offer night classes to support students' work schedules, remedial courses for students whose high school educations did not sufficiently prepare them for college, and a culture that supports viewing college as a credential and route to a job rather than primarily a social experience (Armstrong and Hamilton 2013). Highly selective institutions are not designed around class-disadvantaged students' needs, though they may have a

small number of programs that try to improve the experiences of class-disadvantaged students (Armstrong and Hamilton 2013; Stuber 2011). Instead, highly selective institutions tend to match the needs and expectations of class-advantaged students by assuming that students are not working full time for pay, attended high schools that prepared them for college-level academic work, do not only want majors that are not directly tied to jobs, desire self-growth experiences, and support a Greek system that privileges social life over academic life (Armstrong and Hamilton 2013; Mullen 2010; Stephens et al. 2012; Stuber 2011). Highly selective universities then provide a fit for class-advantaged students while low-selectivity universities provide a match for class-disadvantaged students. Each also provides a mismatch for the class of students they are not designed to serve. As students are likely to feel drawn to and benefit from universities in which there is a match between their cultural capital and institutional design, the class-advantaged are more likely than the class-disadvantaged to be disproportionately represented at high-selectivity universities and to receive greater returns in earnings from them. Likewise, class-disadvantaged students are likely to feel drawn to and receive higher earnings than class-advantaged students when they attend low-selectivity institutions.[2]

At the level of major, we posit that bodies of knowledge are not neutral (Bourdieu and Passeron 1977). Majors vary on at least two axes, each of which corresponds to different factions of the elite. One faction of the dominant class is composed of the cultural elite (Bourdieu 1984). They possess a distinctive set of tastes, dispositions, worldviews, and communication styles that are widely viewed as more meritorious than other styles but are in reality arbitrary and tied to their class location. Another faction of the dominant class is composed of the economic elite. They are less concerned with high culture, and more with business, economics, and, we argue, politics (Bourdieu 1984). Majors correspond to these divisions. “High cultural capital” majors

include fine arts, humanities, languages, and communications – majors that teach and reward the culture associated with the cultural elite. Majors associated with the economic elite instead include business management, finance, economics, and political science. Class-advantaged students are more likely to be familiar with the tastes, worldviews, dispositions, and communication styles associated with each (Armstrong and Hamilton 2013; Bourdieu and Passeron 1977; Granfield 1991; Koppman 2015; Rivera 2015). They are then likely to congregate in these majors and also to be more rewarded in them.

However, just as there are majors associated with the cultural and economic elite, there are majors that are associated with marginalized groups (Bourdieu and Passeron 1977). Along the cultural axis, majors vary both in the amount of high cultural capital they expect students to possess and the amount to which the possession of high cultural capital is observable in interactions. Majors that focus on numerical knowledge require minimal knowledge of tastes, dispositions, and worldviews. The work that students in these fields conduct is also focused on numbers, a practice that dampens the extent to which gatekeepers observe students' cultural capital (tastes, worldviews, and communication styles) (Bourdieu and Passeron 1977; DiMaggio 1982; Hansen 2001; Xie, Fang, and Shauman 2015). Other majors may take a middle ground – requiring numerical knowledge as well as knowledge of some high cultural capital (mostly writing and speaking styles). According to fit theory, class-disadvantaged students are likely to be disproportionately represented in majors that do not require, reward, or observe high cultural capital and to receive the largest earnings premium from them (Bourdieu and Passeron 1977; Bourdieu 1984). Similarly, not all majors are associated with the economic elite. Here, we borrow Bourdieu and Passeron's (1977) conceptualization of the homology between majors and students from different social classes by adapting it to the United States and to modern majors. In

doing so, we create new categories of majors. We suggest that some majors focus on the economically and socially disadvantaged as well as elites. These include sociology, social work, and African American studies. In addition, we maintain that some majors focus on serving the economic elite (including workers' supervisors); these include majors such as business support, nursing assistants, dental technology, and protective services. Other majors teach knowledge that could be used to serve the elite or the marginalized; these include psychology, education, and professional health fields. Each of these major categories likely attracts and rewards the class-disadvantaged. Due to their lived experiences, the class-disadvantaged are more likely than the class-advantaged to be familiar with the tastes, worldviews, and styles of the economically marginalized (Bourdieu 1984; Hurst 2010; Stuber 2005). They are also likely to be familiar with norms related to serving the elite (Kohn 1969; Sherman 2007). Their upward mobility also allows them exposure to people across the class spectrum, enabling them to serve and understand many groups (Stuber 2005). However, the class-advantaged's knowledge of the elite may also help them work for them (Armstrong and Hamilton 2013), and majors that can be used to serve groups across the class spectrum may also be used to serve only one. For this reason, we hypothesize that the class-disadvantaged are likely to be most over-represented and rewarded in majors that focus on the economically marginalized. They may be more equally represented and rewarded in majors associated with supporting the privileged or helping many groups.

In sum, we draw upon EMI and fit theory to outline competing explanations as to whether all degrees are equally equalizing, and, if not, which ones are more equalizing than others. The process proposed by EMI suggests that wage gaps will occur when students from different class backgrounds are unevenly distributed in institutions and majors associated with high earnings but returns to each educational experience will be equal for those who access them.

In this scenario, all majors will be equally equalizing to the extent that they are equally accessed. We draw upon fit theory to outline a second potential process by which wage gaps occur. In this scenario, students will disproportionately occupy and receive higher earnings when their class background is matched with the expectations and practices of the institution and major. Institutions and majors that do not strongly favor either group are likely to be the most equalizing. These are likely to be moderately-selective institutions, majors that do not require knowledge of high cultural capital, and majors associated with supporting the privileged or helping many potential groups.

In addition, we draw upon EMI and fit theories to construct different predictions as to the main driver of a potential overall social class wage gap. EMI predicts that any wage differences are a result of unequal access to the institutions and majors associated with the highest earnings. Fit theory highlights both access and returns to institutions and majors. A wage gap may then result from class-advantaged students' better access and returns to highly selective institutions. According to fit theory, a class wage gap is less likely to result from different access to majors, as advantaged students may pursue majors related to the cultural elite despite their association with lower earnings. Returns to different majors, however, are likely to matter as unequal wages may be derived from similar educational experiences.

Finally, we take an intersectional approach to understanding how different degrees are more or less equalizing for students from different class backgrounds. Men and women from different class backgrounds have varied collegiate experiences, raising the possibility that different degrees and majors may be unevenly equalizing for men and women. Men are more likely than women to attend very selective universities, and gender segregation by major is pronounced (Davies and Guppy 1997; England and Li 2006). The average returns to a college

degree also vary by gender, even after controlling for institutional selectivity, major, and test scores (Bobbit-Zeher 2007). This may create a ceiling effect for women, whereby the distribution and returns to institution and major matter less as there is less variation in women's earnings. Furthermore, cultural fit theory is based upon assumptions about the cultural capital students possess and that institutions and majors expect. Yet, men and women in cultural and economic fields invest in different amounts of each form of capital (Lizardo 2006) and how educators and employers evaluate cultural capital varies by students' gender (Dumais 2002; Rivera 2015). For all of these reasons, we analyze class wage gaps separately for men and women.

DATA & METHODS

Data and Measures

We use data from the Baccalaureate and Beyond Longitudinal Study (B&B), sponsored by the National Center for Education Statistics (NCES). The B&B looks at bachelor's degree recipients' work experiences over time and gathers extensive information on their demographic backgrounds, college experiences, graduate study, and labor market experiences. Specifically, we use data from the 1993/03 Baccalaureate and Beyond Longitudinal Study (B&B:93/03), which interviewed a nationally representative sample of four-year college students who earned bachelor's degrees during the 1992–93 academic year (Wine et al. 2005). Demographic background information and college transcripts were then added in 1994 and two follow-ups were carried out in 1997 and 2003. In this article, we use data from the restricted-access version of the B&B and look at labor market outcomes in 2003. We focus on respondents who were employed in 2003, exclude zero-earnings individuals, and perform all analyses separately for

men and women. For men, this downwardly biases the wage gap as class-disadvantaged graduates are more likely than class-advantaged graduates to be unemployed ten years after graduation. For women, class disadvantaged and advantaged women are equally likely to be unemployed.

Dependent Variable

We measure *earnings* about 10 years after graduation, in terms of the graduate's current or most recent annualized (logged) salary in 2003.

Independent Variables

There is little agreement among scholars about how many social classes exist, the boundaries between classes, or what combination of occupation, education, and income should be used to operationalize social class (Lareau and Conley 2008). We use parents' education as a measure of class. Specifically, we focus on two groups of students: *class-disadvantaged* students, whose parents did not graduate from a four-year college; and *class-advantaged* students, who have at least one parent with a bachelor's degree. We recognize that these two groups mask variation within each category and leave out important markers of class such as occupation and income. However, we use parents' education as an indicator of class for theoretical reasons. The processes we are interested in concern higher education; it then makes sense to operationalize class background in terms of parents' attainment in higher education. Students whose parents graduated from college can help them choose a university and major in a more knowledgeable way than students whose parents did not graduate from college (Lareau 2011; Radford 2013). Pertinent to fit theory, parents' education is also more associated with the cultural capital they

use during childrearing than is income (Weininger, Lareau, and Conley 2015). In addition, standard occupational classifications, such as occupational prestige scores and the Erikson Goldthorpe Portocarero (EGP) scheme are less appropriate than parents' education for thinking about how institutional selectivity and major relate to earnings. The EGP scheme groups occupations by workers' authority, autonomy, and routine while occupational prestige scores rank professions by common perception. We are less interested in how parents pass down their class position through ideas about authority, autonomy, routine, and prestige than we are concerned about how parents' class position translates into choosing institutions and majors and the pay-offs to them. Furthermore, occupational measures are likely to ignore stay-at-home parents – a group who is likely to transmit cultural capital to their children even if they are not in the workforce. Parents' education is then used as it is theoretically grounded.

Institutional selectivity is measured via a four-category variable derived from a combination of variables from the 2002 Institutional Characteristics survey. Open admission 4-year institutions form a separate category. For non-open admission institutions, an index distinguishing between three levels of selectivity (minimally, moderately, and very selective) was created by the National Center for Education Statistics. This measure combines information on the centile distribution of the percentage of students who were admitted to each institution (of those who applied) and the centile distribution of the midpoint between the 25th and 75th percentile SAT/ACT combined scores reported by each institution.

[Table 1 here]

We operationalize college *major* in three ways. Table 1 summarizes our major groupings. First, for considering whether the distribution of students into various majors is aligned with the

predictions of EMI, we group majors into traditional categories by academic discipline. These include arts and humanities, business, education, social science, STEM, and vocational majors. Though these traditional major groupings are valuable, they cannot reveal the extent to which fit theory may explain institutional and major class wage gaps. Thus, we develop novel categories of majors.

Our second categorization system groups majors by the degree to which they teach and reward high cultural capital – a categorization that aligns with fit theory. "High cultural capital" majors include those that teach about elite culture. These majors include art history, communications, English literature, foreign languages, journalism, music, philosophy, and speech/drama. "Medium cultural capital" majors are non-technical fields in which students are likely to be judged by their ability to communicate in the language of the dominant classes but in which the content of the major is less focused on production and analysis of elite cultural capital. These majors include those such as biology, business management, economics, education, environmental sciences, professional health-related fields (e.g., dentistry, veterinary medicine), history, political science, psychology, sociology, and women's studies. Majors that we deem low on the cultural capital scale are those that require little knowledge of high cultural capital. We divide low cultural capital majors into two groups: those that require interaction, and, thus, some amount of cultural capital in the form of communication, and those that are more exclusively based on technical knowledge. In the first of these groups we include majors such as accounting, computer science, supporting health-related fields (e.g., nursing assistant and medical tech), and vocational majors. In the group that requires low levels of knowledge of high cultural capital and low levels of interaction we include majors such as math, physics, and engineering. Importantly, when we refer to medium and low cultural capital groups, we are referring to the level of *high*

cultural capital associated with the majors rather than the cultural capital associated with more disadvantaged groups.

We also introduce a third way of grouping majors: a categorization system based on how much the majors are associated with the knowledge of economic elites. In the category we name "economic elites" we include business management, economics, finance, and political science. A second group of elites are those who have large volumes of high cultural capital but low amounts of economic capital. This includes the same majors as listed in the high cultural capital group above; here we refer to them as "cultural elite." A third group along the economic capital axis includes majors used to "support the elite:"[3] accounting, business support, non-professional health majors, protective services, secretarial, and vocational majors. A fourth group of majors teach knowledge that could be used to serve either the economic elite or the marginalized – majors that we call "versatile." These include biology, chemistry, computer science, education, engineering, professional health-related fields, math, psychology, and physics. Finally, we term a fifth group "marginalized." These include majors that are more focused on economically and socially disadvantaged groups than other commonly available majors, though they may also include a study of elites. These include African American studies, sociology, social work, and women's studies.

Majors also funnel students toward some types of jobs and away from other types. Students' cultural capital must then not only "fit" the expectations of the major, but also the expectations of employers, who may differentially consider cultural capital in their hiring decisions. Employers who are in the arts and communications fields – fields that are inherently linked to class-based tastes – may reward the highest-earning jobs to class-advantaged students as they have the most familiarity with this set of cultural capital. Similarly, the top end of the

business sector hires based upon class-based tastes more so than job-specific skills (Koppman 2015; Rivera 2015). Employers in fields that require technical skills, however, may not need to use high cultural capital as a signal of competence as they can more easily measure the relevant skills. To account for these different situations which may affect gaps in earnings, we control for *job sector* (distinguishing self-employed, for-profit, not for profit, local government, state government, federal government, and the military) and *occupation* (distinguishing between clerical, blue collar, business support, sales / customer service, legal professionals, legal support, STEM professionals, STEM support, educators, human services, humanities and arts professionals, managers, and other). We also control for the number of *hours worked per week*.

In the multivariate analyses we control for graduates' *race* (dummy for white), college cumulative *GPA*, *SAT score*, whether they had a *double major*, their *marital status* (dummy for single) and *number of dependents*. We also include a dummy indicating whether a respondent chose a college based on *job placement* rates, as a proxy for attitudinal factors and graduates priorities which may self-select them into highly rewarding jobs. At the institutional level, we account for *college size* with a dummy indicating small institutions (enrollment <5,000) and for *institutional funding* (public or private), which is known to affect earnings among highly selective institutions (Brewer, Eide, and Ehrenberg 1999). We also include a control for the location of a respondent's job in 2003, using the Urban Influence code.[4] We do this because job opportunities and earnings may be affected by urbanicity.

In addition, earnings may be affected by education beyond a bachelor's degree. Students from different class backgrounds, graduating with different majors and from different institutions may differ in their likelihood to pursue *further education*. Accordingly, we account for whether graduates continued their education past their bachelor's degree (BA). Furthermore, we perform

all the analyses on a restricted sample of students who did not pursue any education past their bachelor degree (in tables, we refer to this as the BA Only group). Descriptive statistics for the independent variables are provided in the Appendix (Table A1).

Analytic Strategy

After describing the distribution of class-disadvantaged and class-advantaged students across institutions and majors, we look descriptively at the differences in their earnings 10 years after graduation. Next, we analyze differences in their salaries using multivariate linear regression. This allows us to predict the effect of class background on salary and to investigate the role of major and institutions in affecting earnings for graduates from different backgrounds. Specifically, we use ordinary least-squares regression to estimate the effect of major and institutional selectivity on (log) yearly earnings for class-advantaged and class-disadvantaged graduates, controlling for a series of other covariates. In order to capture different effects for class-advantaged and class-disadvantaged graduates, we stratify the sample by class to allow a comparison of the impact of the independent variables of interest between the two groups.[5] Let W_{ai} refer to class-advantage's earnings, and W_{di} refer to class-disadvantaged's earnings. The matrix X represents all the covariates. Our equations read:

$$ln(W_{ai}) = X_{ai}+\beta_a +\varepsilon_{ai}$$

$$ln(W_{di}) = X_{di}+\beta_d +\varepsilon_{di.}$$

Last, we apply the Blinder-Oaxaca decomposition (Blinder, 1973; Oaxaca, 1973) to identify and quantify the contribution each factor makes in explaining the wage gap between class-advantaged and class-disadvantaged graduates. The decomposition reveals the relative

proportions of the wage gap which can be attributed to differences in characteristics, that is, to the different distribution of students across institutions and majors, among other factors, and differences in the parameters, that is, to differences in the returns to those characteristics. Following Oaxaca (1973), we can express the class wage gap as:

$$ln(W_a) - ln(W_d) = (X_a - X_d)\,ß_a + (ß_a - ß_d)\,X_d + u$$

where $ln(W)$ indicates the natural logarithm of yearly wages, the subscript a indicates class-advantaged students and the subscript d indicates class-disadvantaged students. The first term, often referred to as 'explained' component, captures the change in wage differentials between class-disadvantaged and class-advantaged students in response to changes in the difference in their characteristics (the endowment effect). The second term, often referred to as 'unexplained' component, measures the wage gap due to different returns, that is, in differences in the effect of covariates (the coefficient effect); this latter component is usually interpreted as discrimination, but it also captures all potential effects of differences in unobservable variables (Jann 2008). We perform the Blinder-Oaxaca decomposition using the `oaxaca` command in Stata 14 (Jann 2008).[6] All analyses apply weights following the recommendation of the B&B data owners.[7] We used dummy indicators to account for missing data on the independent variables.

In order to answer the question of whether all college degrees and institutions equally level the playing field for students with different class backgrounds, we take self-selectivity issues into account. Selection processes may occur at different levels. First, selectivity may operate in the probability of attending and finishing college. If youths from disadvantaged origins are more likely not to attend college, to attend non-four-year institutions, to drop out of college, and to work in less lucrative jobs than their college graduate peers, the class wage gap is

likely smaller when focusing on students who have at least a bachelor's degree compared to all youths. However, because class-disadvantaged students have to overcome more barriers to graduate from college, it is possible that they are more motivated, hardworking, and ambitious than their class-advantaged counterparts. Furthermore, youth from different class backgrounds have different probabilities of graduating from particular institutions, graduating in particular majors, and continuing onto graduate school. If individuals with different backgrounds differently sort themselves into institutions and majors based on characteristics related to their potential earnings then wage gaps between class-disadvantaged and advantaged students attending a specific institution or major may not be the result of the equalizing or inequality-generating effect of an institution or major but may instead be due to the self-selection.

To address this we need to make sure that class-disadvantaged and advantaged students who attend different institutions and choose different majors are not fundamentally different according to other characteristics related to earnings. We attempt to address selection mechanisms by controlling for observed characteristics that may differentiate the institution and major choices of disadvantaged and advantaged students. In particular, we account for students' average (cumulative) GPA, SAT score, and whether they considered job placement as a criterion in their college choice. These measures allow us to mitigate the chance that measured ability and the value placed on earnings drive the findings.

RESULTS

Students from different class backgrounds may earn different amounts if they are disproportionately distributed into institutions of varying selectivity and into different majors. As Table 2 shows, men and women from disadvantaged class backgrounds are less likely to attend

very selective universities and more likely to attend institutions of lower selectivity or with open admission. This is true both when considering a restricted sample of students who ended their education after earning a bachelor's degree as well as when considering all respondents who graduated from college regardless of whether they continued their education beyond a bachelor's degree.

[Table 2 here]

Students from different class backgrounds are also unevenly distributed across majors. Class-advantaged men, compared to class-disadvantaged men, are overrepresented in STEM, social sciences, and arts and humanities majors but underrepresented in business, education, and vocational majors. In terms of cultural capital, class-advantaged men are overrepresented in majors that reward knowledge of "high" cultural capital, while class-disadvantaged men are overrepresented in majors that are associated with medium or low amounts of high cultural capital. However, for majors associated with neither high cultural capital nor high amounts of interaction – majors like math, physical sciences, and engineering – class-advantaged men are modestly overrepresented. In terms of their relationship to economic capital, class-disadvantaged men are overrepresented in majors associated with the economic elite and in majors associated with supporting them. Class-advantaged men are overrepresented in majors associated with the cultural elite and, slightly, with majors associated with marginalized groups. Most distributional differences in major are less than 5% and all are less than 10%.

In the case of women, Table 2 shows that class-advantaged students are overrepresented in arts and humanities, and, similarly, in high cultural capital majors, while class-disadvantaged students are overrepresented in business, majors associated with low amounts of high cultural capital, and majors used to support the economically privileged. For women, distributional

differences by major are all less than 10%. For both men and women, we do not see evidence that class-advantaged students dominate the highest earning majors or that class-disadvantaged students predominately occupy majors associated with the lowest pay. Instead, class-disadvantaged students are overrepresented in a high earning major (business) and underrepresented in low earning majors (arts and humanities). Class wage gaps are then minimized as class-advantaged men and women are overrepresented in majors in which they hold a cultural affinity but which are associated with low pay. They are further minimized as class-advantaged students are not overrepresented in majors associated with the economic elite – majors also associated with high pay.

Table 3 shows the average earnings for class-disadvantaged and class-advantaged graduates who attended different types of institutions and majored in different fields, along with a t-test of the difference. Table 4 shows adjusted predicted salaries from ordinary least square regression models estimating respondents' salaries 10 years after graduation, including all the independent variables listed above.[8] As the findings yield substantially similar results, we include Table 3 but focus our discussion only on Table 4. Overall, as displayed in Table 4, we find a seven point wage gap for men in the full sample, a gap that rises to ten percent for men who ended their formal education after receiving a bachelor's degree. For women, the wage gap is smaller, at three percent for each sample. Notably, the gap favors class-advantaged women in the full sample, but class-disadvantaged women in the BA-only group.

For men, the size of the wage gap varies considerably by institutional selectivity and major. At very selective universities, class-advantaged men earn substantially more than class-disadvantaged men. For men who stop their education after earning a bachelor's degree, class-disadvantaged men at very selective universities earn only 79% of what class-advantaged men at

similar institutions earn, controlling for other differences. For men who stop their education after a BA, moderately and minimally selective universities are most equalizing; for the full sample moderately selective universities are the most equalizing while minimally selective universities offer a 6% earnings premium for class-disadvantaged students. These findings suggest that earnings equality is a product of the fit between students' and institutions' characteristics as very selective universities favor the class-advantaged, minimally selective universities favor the class-disadvantaged (for the full sample), and moderately selective universities are fairly equalizing. The exception to this is open admissions universities, which offer an earnings premium to class-advantaged men over class-disadvantaged men. However, the number of men in the sample in open admissions universities is small and should be interpreted with caution.

Table 4 also shows the variation in earnings by class background for students of different majors. Social science and arts and humanities majors are associated with the largest advantage for the class privileged. These gaps can be quite large; in the BA only sample, class-disadvantaged men in social science majors earn only 75% of their more advantaged counterparts. Education is the only major in the traditional classification scheme in which class-disadvantaged men out-earn their class-advantaged counterparts. This premium is very large, at 18% for the full sample and 41% for men who ended their education after receiving a bachelor's degree. Among men in the full sample, STEM and vocational majors are associated with the most earnings equality; among men who stopped their education after a BA, business majors are the most equalizing – suggesting that the wage gap observed in Table 3 is due to the controlled characteristics. When considering the major groupings related to fit theory, Table 4 shows that majors associated with high cultural capital and the economic elite are associated with the biggest earnings premiums for students from advantaged backgrounds relative to students from

disadvantaged backgrounds. In the full sample, majors associated with the marginalized offer the class-disadvantaged an earnings premium compared to their class-advantaged counterparts; in the BA sample, marginalized majors are most equalizing.[9] By contrast, the majors associated with the most equality are those that require little knowledge of high cultural capital and little interaction (for the full sample) as well as versatile majors. In sum, we observe large earnings gaps in favor of the class-advantaged in majors associated with the elite, gaps in favor of the class-disadvantaged in majors associated with the marginalized, and greater equality in majors less associated with either group. These findings support the idea that earnings gaps result from mismatches between students' characteristics and major.

[Table 4 here]

In the case of women, controlling for other factors, institutional selectivity and major matter differently than they do for men. Whereas a large earnings gap at very selective institutions favors class-advantaged men, very selective institutions provide class-disadvantaged women a small earnings premium. Moderately selective universities are close to equalizing and minimally selective and open admissions universities offer class-disadvantaged women an earnings premium compared to class-advantage women.

In terms of major, Table 4 shows that, for women, the earnings gap does not exceed 10% in any of the traditional major groupings. This pattern extends to thinking about majors on the cultural axis, with one key exception: women who stopped their education after a BA and majored in fields associated with low levels of high cultural capital and low levels of interaction. In this case, the gap is in favor of class-disadvantaged women; they earn 50% more than class-advantaged women. In terms of majors related to the economic axis, we again see earnings gaps that peak around 10%. The exception is again in favor of class-disadvantaged women who ended

their education after a BA; they earn 13% more than class advantaged women when they have majors associated with marginalized groups. Overall, in terms of institution and majors among women, when the earnings gap is large it favors the class-disadvantaged and occurs in settings when their cultural capital aligns with institutional expectations: in minimally selective and open admissions universities, low levels of high cultural capital / low interaction majors, and majors associated with the disadvantaged. However, for the majority of majors and, when considering the full sample, for institutions of all levels of selectivity, wage gaps are somewhat muted – a finding aligned with EMI's prediction that once students enter the same institutions and majors they receive relatively equal earnings.

Tables 5 and 6 show results from the Blinder-Oaxaca decomposition. In the first two rows of each table we show the mean predicted wages for each group, in dollars; the third row expresses the wage gap as a percent of the disadvantaged's group wages. Next, we divide the gap in the proportion which is explained versus unexplained, which indicate the total endowment and coefficient effects respectively. Additionally, we show the contribution of each predictor to the gap,[10] both for the explained and the unexplained portion. To address problems related to the fact that for categorical predictors the decomposition results depend on the choice of the base category, we computed the decomposition based on normalized effects, that is, effects expressed as deviation contrasts from the grand mean (Yun 2005). In the following, we interpret the endowment effects, that is, the explained portion of the decomposition, as distribution effects; coefficient effects, which represent the unexplained portion, are interpreted as returns effect. Also in this section, we extend our analysis past institutional selectivity and major to understand what additional factors account for the class wage gap.

For men, the extent to which the class wage is explained by men's different characteristics and returns to them varies considerably for the full and BA-only samples. For men who stop their education after receiving their bachelor's degree, the majority of the nearly $6,000 wage gap is unexplained, indicating differences in returns to the same credentials. More specifically, class-advantaged students enjoy larger returns to very selective institutions and open admissions universities; social science, arts and humanities, and vocational majors; and majors associated with the economic and cultural elite. However, differences in returns to these factors explain less than 1% each and are not significant. Factors outside institutional selectivity and major show larger differences in returns to students from different class backgrounds. SAT score, hours worked, and, in models with all controls, GPA, are associated with bigger, but still non-significant, returns for class-advantaged men. These latter factors suggest that academic excellence and long hours worked cannot erase the class wage gap for men. However, differences in returns are not always in class-advantaged men's favor. Returns to minimally and moderately selective institutions; education majors; medium and low cultural capital majors; majors that support any group; and versatile majors favor class-disadvantaged men, mostly in small and non-significant ways. In addition, class-disadvantaged men receive higher returns to being white than do class-advantaged men; in other words, not being white is more penalizing for class-disadvantaged men. For the BA-only sample, we again see evidence that earnings gaps are associated with cultural fit as class-advantaged men benefit more from settings that are aligned with their experiences while class-disadvantaged men benefit more from settings aligned with theirs.

When considering the full sample of men, regardless of their level of educational attainment beyond a bachelor's degree, we find a 7% gap in men's average salaries 10 years after

graduation, or nearly $4,000. A more significant portion of the gap is explained by distributional differences compared to differential returns. The distribution of students into institutions of varying selectivity does not account for the wage gap. Major plays a small role; the wage gap would be slightly bigger if class-disadvantaged men were more evenly distributed into arts and humanities, business, and high cultural capital majors, and smaller if more class-disadvantaged men were in social science majors and majors that require low levels of high cultural capital and interaction. These distributional differences are more often significant in models that do not include labor market-related variables, suggesting that the labor market mediates or cancels out the effect of major. Yet, differences in returns still matter for the full sample of men. Class-advantaged men receive higher returns for their GPAs, SAT scores, and hours worked – reinforcing the idea that class-disadvantaged men cannot close the wage gap by receiving the same grades or working the same number of hours as the class-advantaged. Yet, class-disadvantaged men do receive slightly higher returns if they continue their education past a BA, allowing them to slightly reduce the wage gap.

[Table 5 here]

Table 6 shows that for women, the class earnings gap is smaller at 3%, or approximately $1,300, for the full sample. For women who stop their education after receiving a BA, a 3% gap again exists, but favors class-disadvantaged women. Both gaps are partly explained by distributional differences. As is the case for men, the wage gap is largely explained by distributional differences for the full sample but differences in returns for the restricted sample. For the full sample, the proportion of class-advantaged and class-disadvantaged students in very selective universities, urban areas, and small colleges partly explains the wage gap. For the BA-only sample, distributional differences favor class-disadvantaged women due to the number of

hours they work. This is slightly offset by the distribution of students in different classes into urban areas.

The class wage gap among women is also accounted for by differential returns. Notably, across samples, class-disadvantaged women receive *higher* returns for some similar experiences – a process that reduces the wage gap. Though not-significant, class-disadvantaged women receive far larger returns to their GPA, and somewhat higher returns to their SAT scores. This also offsets the far greater returns class-advantaged women receive from their hours worked and the small and often non-significant additional returns they receive from moderately selective universities; high, medium, and low cultural capital majors; majors associated with serving the elite; majors that could be used to serve either group; urban location, and further education. The wage gap is largely not a result of distributional differences into majors associated with the economic or cultural elite, nor is it primarily driven by returns to them. Instead, factors such as returns to GPA matter more, and this favors the disadvantaged over the advantaged.

[*Table 6 here*]

DISCUSSION

A key finding in stratification research is that a college degree levels the playing field for students from different social class backgrounds by giving all students, regardless of their class backgrounds, equal earnings (Hout 1988; Torche 2011). Despite its importance, this finding does not take into account that education is not only vertically stratified – by primary, secondary, and tertiary education – but is also deeply stratified horizontally. We find that an overall class wage gap persists ten years after the 1993 bachelor's degree cohort graduated, but that the size of this

gap varies substantially by institutional selectivity and major. In short, in a time of profound horizontal stratification, not all degrees are equally equalizing.

Inequality in college degrees begins with access. We corroborate other studies' findings (Astin and Oseguera 2004) that class-advantaged students are disproportionately located in very selective universities. We also find that students from different class backgrounds are somewhat differently distributed into majors, though in ways more likely to minimize earnings inequality than maximize it. Specifically, class-advantaged students are particularly overrepresented in low-paying majors such as arts and humanities and underrepresented in high-paying majors such as business. Yet, the distribution of students into institutions and majors is not the only correlate of the class wage gap; the returns to similar degrees matters too. Some educational credentials are associated with large wage gaps. For men, these include very selective institutions as well as majors related to high cultural capital and economic privilege. At the same time, for men, some educational experiences are much closer to equalizing. These include moderately selective universities, majors not associated with high cultural capital, and versatile majors. For women, the answer to the question of whether all degrees are equally equalizing is closer to yes. For most institutions and majors, earnings gaps are not more than 10%. The instances in which there are larger wage gaps favor the class-disadvantaged.

We also examined whether the wage gaps are most attributable to differences in the characteristics of class-advantaged and class-disadvantaged students or to differences in returns to those characteristics. We find that, for men and women in the full sample, distributional differences explain the largest percent of the gap. Both distributional differences in institutional selectivity and major, however, account for only a small percent of the overall gap. Much of the distributional effect comes from the combination of other factors. For the BA-only samples of

men and women, differences in returns explain a larger portion of the wage gap. Class-advantaged men, compared to class-disadvantaged men, receive a slight although non-significant premium from very selective universities; class-advantaged women enjoy higher returns than class-disadvantaged women from very and moderately selective universities. The wage gap is also partly explained by the small earnings premium class-advantaged men receive from majors associated with the cultural and economic elite, and by the earnings premium class-advantaged women, compared to class-disadvantaged women, receive from all majors not associated with low cultural capital and low interaction, the economic elite, or the marginalized. However, for the BA-only sample, returns to institutional selectivity and major play a lesser role than do returns to GPA, SAT score, hours worked, and urbanicity. For men, the wage gap is widened by differences in returns to GPA, SAT score, and hours but reduced for urbanicity. For women, returns to GPA and SAT score reduce the gap while returns to hours and urbanicity widen it.

Previous research also had not explained why some educational experiences are more equalizing than others. For men, we find evidence that earnings premiums arise when one group's cultural capital is favored by institutions and majors; earnings gaps are small when neither group's cultural capital is preferred. However, for women, cultural fit is only associated with earnings gaps when class-disadvantaged students' cultural capital is aligned with institutional and major expectations. Surprisingly, class-advantaged women do not receive wage premiums for a fit between their cultural capital, institutions, and majors. In these cases, a different process is at work: both class-advantaged and class-disadvantaged women are overrepresented in some majors with high earnings, but, for students who enter the same institutions and majors, earnings inequality is negligible across the majority of institutions and

majors. For women, cultural fit then plays a smaller role in generating earnings gaps than it does for men, and processes aligned with effectively maintained inequality may be more prominent.

Of course, our findings must be interpreted in light of the study's limitations. First, the study used a binary measure of social class. While this operationalization was theoretically informed, it was also practical in that it sought to minimize cell size issues. Nevertheless, it has the effect of masking within-group variation by parents' occupation, income, wealth, and social capital. Each of these dimensions of class inequality is passed down through different mechanisms and deserves to be studied separately. Second, this study speaks to class wage gaps for one graduating cohort. We cannot generalize to other cohorts as they experience different levels of background inequality, labor market conditions, and educational options. Third, our measure of the class gap is operationalized as graduates' earnings 10 years after graduating. Earnings are an especially appropriate way to measure inequality as aggregate groups by occupational sector and prestige mask important inequalities. Nevertheless, earnings are subject to variation over time, do not include all sources of job-related income such as shares and bonuses, and exclude spouses' earnings. Other measures of class gaps may produce different findings.

Fourth, while we attempted to rule out selection effects, data limitations meant that our efforts were incomplete. Unfortunately, the B&B does not include pre-college measures, meaning that we could not control for high school GPA or test scores, for example. Furthermore, unobserved characteristics may shape some of the wage gaps if they are related to wages and also differently affect class-disadvantaged and advantaged students' enrollment in particular majors and colleges. Controlling for unobservables[11] is particularly challenging as the same characteristics (such as ambition) that lead students to apply to highly selective colleges or

choose particular majors may also be differently rewarded in the labor market. Self-revelation models have been proposed (Dale and Krueger 2002) to control for selection, which assume that students signal their potential ability, motivation, and ambition by the choice of schools to which they apply. However, our data does not provide information on individuals' application behavior. Furthermore, such models may be problematic as they rely on a critical assumption that students' enrollment decisions are uncorrelated with unobserved characteristics related to their earnings potential. We suspect that this assumption does not hold in our case. For example, students may be more likely to choose particular institutions or majors based on characteristics also associated with earning potential, if, for example, institutions with different selectivity differently attract students with financial aid packages or some majors accept higher enrollments.

Our study also produced unanswered questions which future research should explore. First, why are several types of college degrees more equalizing for women than for men? And, in particular, why does fit theory better apply to men than to women? One possibility is that the distribution of cultural capital across women from different social classes is more equal than the distribution of cultural capital among men of different classes. Women from different social classes would then be similarly judged by educators and employers, reducing a class gap. Another possibility is that educators and employers expect women to have high levels of high cultural capital. They may then seek out evidence that confirms their presuppositions and ignore evidence to the contrary. It is also possible that class-disadvantaged women recognize the hurdles presented by both their class and gender and put in more effort to find high paying jobs, as compared to men who are disadvantaged only by their class. Future research could determine which of these or other mechanisms explains the gender variation in institution and major wage gaps.

A second avenue for future research is to extend the general question – what types of college degrees are equally equalizing – to other types of college degrees. Colleges also vary by the size, funding source, religious affiliation, HBCU status, gender and race composition, mission, and location. Though we controlled for many of these factors in our analysis, they also deserve to be featured as independent sources of variation in wage gaps. Similarly, our analysis focused on four-year colleges, but approximately half of all college students attend community college (Deil-Amen 2015). We excluded this source of differentiation from our analysis as we consider it to be part of vertical, rather than horizontal, stratification. A third extension of this study is to consider how wage gaps have changed over time. Higher education expansion, differential degrees of horizontal segregation, the rise of a college for all ethos, and changing labor market conditions have changed who goes to college and to what type of college. These changes could affect wage gaps. It is possible that differences in cohort, as well as differences in the age when earnings are measured, account for why we find a different overall wage gap than Hout (1988) and Torche (2011). Fourth, a similar analysis could be conducted but in regards to graduate degrees rather than bachelor's degrees. Graduate programs rely on different selection processes, contain both internal vertical stratification and horizontal stratification, and have potentially more varied levels of connections to employers. Each of these factors could change the size of the wage gap across institutions and degree types.

A final avenue for future research involves untangling whether class wage gaps are a result of educational factors, labor market experiences, or both. Class wage gaps could result from educational inequalities that we were unable to measure, such as acquiring job related skills through collegiate experiences. They may also result from class differences in students' job search strategies, such as what jobs they apply to, if and how they use networks to obtain jobs,

and how they perform in interviews and in prior jobs. Employers' judgments of students of different classes may also contribute to the wage gaps. Students who are otherwise similar, except for their class backgrounds, may be evaluated differently in times of hiring and promotion. Students' class backgrounds may also make them different on some dimensions that employers evaluate unevenly. Future research could determine how these and other aspects of educational and labor market experiences relate to the class wage gap. Even with the limitations and scope for future research, this study highlighted several contributions. We find that there is no one class wage gap for college graduates. Just as there are many types of colleges and majors, there are wage gaps of many sizes.

ENDNOTES

[1] Torche focuses on distributional and returns inequality in the labor market. We borrow this idea to examine distributional and returns inequality in universities and majors.

[2] An alternative reading of fit theory suggests that class-disadvantaged students will never receive the same opportunities and benefits as class-advantaged students, given that the latter's cultural capital is widely valued and nested in a field of power. Accordingly, in situations in which there is a match of class-disadvantaged students' cultural capital and the institutional characteristics, disadvantaged students will not receive an earnings advantage but will be penalized less than if their culture mismatched institutional expectations.

[3] We use the term "elite" loosely to refer to supporting the economic elite as well as a variety of professionals.

[4] For more information, see http://www.ers.usda.gov/data-products/urban-influence-codes.aspx

[5] By simultaneously estimating an earnings equation for each group we can investigate which covariates play a significant role in affecting earnings among class-advantaged and class-disadvantaged graduates, respectively, and test whether differences in the effects across the two groups are statistically significant. The comparison of regression coefficients was done using the `suest` and `test` command in Stata.

[6] Specifically, we applied a twofold decomposition using the `pooled` option

[7] See https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006166 and http://nces.ed.gov/statprog/handbook/bb_surveydesign.asp

[8] Predicted salaries are computed at the means of the independent variables. (Exponentiated) coefficients and p-values from OLS regression models are provided in the Appendix (Table A2).

[9] Findings related to marginalized majors should be interpreted cautiously given the relatively small sample of students in this group.

[10] This is conducted in Stata using the `detail` option.

[11] While fixed effects are a common way to handle unobserved heterogeneity, they require a longitudinal (or hierarchical) data structure as they rely on within-group variation. This does not hold for our data, as, although the B&B is a longitudinal study, we only observe outcomes at one point in time, 10 years after graduation.

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Table 1. Major groupings.

Major Category	Included Majors
Traditional Disciplines	
Arts & Humanities	African American Studies, American Civilization, Anthropology/Archaeology, Area Studies, Art History/Fine Arts, Communications, Communication Technology, Creative/Technical Writing, Design, English/American Lit, Ethnic Studies, Film Arts, Fine and Performing Arts, Foreign Languages, History, Geography, International Relations, Journalism, Letters (All Other), Liberal Studies, Library/Archival Science, Music, Philosophy, Religious Studies, Speech/Drama, Women's Studies
Business	Accounting, Business Management/Systems, Business Support, Finance, Management/Business Administration
Education	Education: Early Childhood, Education (Elementary), Education (Secondary), Education (Physical), Education (Other)
Social Sciences	Economics, Public Administration, Political Science, Psychology, Social Work, Sociology
STEM	Allied Health (General and Other), Audiology, Biochemistry, Biopsychology, Biological Sciences (Other), Botany, Clinical Health Science, Chemistry, Community/Mental Health, Computer Programming, Computer and Information Sciences, Data Processing, Dental/Medical Tech, Dentistry, Dietetics, Earth Science, Engineering (Civil), Engineering (Electrical), Engineering (Mechanical), Engineering (Other), Environmental Studies, Health (Other), Health/Phys Ed/Recreation, Hospital Administration, Mathematics, Medicine, Nursing, Nurse Assisting, Physical Sciences (Other), Physics, Public Health, Statistics, Veterinary Medicine, Veterinary Medicine, Zoology
Vocational	Agriculture, Agricultural Science, Basic/Personal Skills, Clinical Pastoral Care, Commercial Art, Cosmetology, Consumer/Personal Services, Forestry, Home Economics, Industrial Arts (Construction), Industrial Arts (Electronics), Leisure Studies, Mechanics (Transportation), Military Sciences, Natural Resources, Precision Production, Protective Services, Textiles, Transportation (Air), Vocational Home Economics (Child Care Guidance), Vocational Home Economics (Other)
Cultural Axis: Volume of High Cultural Capital	
High	Art History, Communications, Communication Technology, Creative/Technical Writing, Design, English/American Lit, Film Arts, Fine and Performing Arts, Foreign Languages, Journalism, Letters (All Other), Liberal Studies, Library/Archival Science, Music, Philosophy, Speech/Drama
Medium	Allied Health (General and Other), African American Studies, American Civilization, Anthropology/Archaeology, Area Studies, Audiology, Biochemistry, Biological Science (Other), Botany, Business Management/Systems, Clinical Health Science, Community/Mental Health, Dentistry, Dietetics, Earth Science, Economics, Education (Early Childhood), Education (Elementary), Education (Secondary), Education (Physical), Education (Other), Environmental Studies, Ethnic Studies, Finance, Geography, Health (All Other), History, International Relations,

	Management/Business Administration, Medicine, Political Science, Psychology, Public Administration, Public Health, Religious Studies, Social Work, Sociology, Veterinary Medicine, Women's Studies, Zoology
Low	Accounting, Agriculture, Agricultural Science, Basic/Personal Skills, Business Support, Clinical Pastoral Care, Commercial Art, Consumer/Personal Services, Cosmetology, Dental/Medical Tech, Forestry, Health/Phys Ed/Recreation, Hospital Administration, Home Economics, Industrial Arts (Construction), Industrial Arts (Electronics), Leisure Studies, Mechanics (Transportation), Military Sciences, Natural Resources, Nursing, Nurse Assisting, Precision Production, Protective Services, Secretarial, Textiles, Transportation (Air), Vocational Home Economics (Child Care Guidance), Vocational Home Economics (Other)
Low & Low Interaction	Chemistry, Computer Programming, Computer and Information Sciences, Data Processing, Engineering (Civil), Engineering (Electrical), Engineering (Mechanical), Engineering (Other), Mathematics, Physics, Physical Sciences (Other), Statistics
Economic Axis	
Economic Elite	Business Management/Systems, Economics, Finance, Management/Business Administration, Political Science
Cultural Elite	Art History, Communications, Communication Technology, Creative/Technical Writing, Design, English/American Lit, Film Arts, Fine and Performing Arts, Foreign Languages, Journalism, Letters (All Other), Liberal Studies, Library/Archival Science, Music, Philosophy, Speech/Drama
Supports the Elite	Accounting, Agriculture, Agricultural Science, Basic/Personal Skills, Business Support, Clinical Pastoral Care, Commercial Art, Cosmetology, Consumer/Personal Services, Dental/Medical Tech, Forestry, Health/Phys Ed/Recreation, Hospital Administration, Home Economics, Industrial Arts (Construction), Industrial Arts (Electronics), Leisure Studies, Mechanics (Transportation), Military Sciences, Natural Resources, Nurse Assisting, Nursing, Precision Production, Protective Services, Secretarial, Textiles, Transportation (Air), Vocational Home Economics (Child Care Guidance), Vocational Home Economics (Other)
Versatile	Allied Health (General and Other), Audiology, Biochemistry, Biopsychology, Biological Science (Other), Botany, Chemistry, Clinical Health Science, Community/Mental Health, Computer and Information Sciences, Computer Programming, Data Processing, Dentistry, Dietetics, Earth Science, Education (Early Childhood), Education (Elementary), Education (Secondary), Education (Physical), Education (Other), Engineering (Civil), Engineering (Electrical), Engineering (Mechanical), Engineering (Other), Environmental Studies, Health (Other), History, Mathematics, Medicine, Physics, Physical Sciences (Other), Psychology, Statistics, Public Health, Veterinary Medicine, Zoology
Marginalized	American Civilization, African American Studies, Anthropology/Archaeology, Area Studies, Ethnic Studies, Geography, Public Administration, Religious Studies, Sociology, Social Work, Women's Studies

Table 2. Distribution of Men and Women from Different Class Backgrounds across Institutions and Majors.

	MEN				WOMEN			
	Full Sample (N=3,520)		BA Only (N=1,740)		Full Sample (N=4,080)		BA Only (N=1,790)	
	Adv	Disadv	Adv	Disadv	Adv	Disadv	Adv	Disadv
Total	50.6	49.4	46.9	53.1	44.5	55.5	39.7	60.3
Institutional Selectivity								
Very Selective	40.9	25.5	34.3	20.4	36.8	20.1	30.6	17.3
Moderately Selective	47.3	55.9	51.2	61.5	47.4	55.1	51.2	54.4
Minimally Selective	7.7	9.4	9.5	9.2	8.2	13.2	9.0	13.7
Open Admission	1.5	4.6	1.9	5.6	2.2	5.9	2.4	6.2
Major								
Traditional Disciplines								
Arts & Humanities	18.1	12.6	19.8	12	21.5	16.5	21.1	14.5
Business	22.8	31.0	29.6	38.7	17.1	23.0	22.5	30.4
Education	5.1	6.9	4.0	4.5	17.0	18.0	13.8	13.5
Social Sciences	13.6	10.2	10.7	8.6	14.5	14.3	13.0	11.4
STEM	32.0	27.9	26.1	22.3	22.1	21.2	20.4	23.2
Vocational	5.9	9.3	7.5	12.5	4.8	4.8	6.4	5.0
Cultural Axis: Volume of High Cultural Capital								
High	13.8	9.3	15.6	9.6	17.5	13.7	19.2	13.0
Medium	45.9	50.5	41.1	47.6	56.1	56.0	50.1	49.2
Low	17.1	21.3	21.9	25.8	16.9	23.2	22.1	30.6
Low & Low Interaction	20.8	16.9	19.1	15.6	6.5	4.8	5.7	5.2
Economic Axis								
Economic Elite	22.2	26.0	23.6	31.3	15.1	15.0	17.9	17.4
Cultural Elite	13.8	9.3	15.6	9.6	17.5	13.7	19.2	13.0
Supports the Elite	17.1	21.3	21.9	25.8	16.9	23.2	22.1	30.6
Versatile	40.1	37.5	32.7	28.5	40.2	38.1	32.5	30.9
Marginalized	4.4	4.0	3.9	3.4	7.4	7.8	5.4	6.1

Note: N rounded to the nearest 10; column percentages do not add up to 100 due to missing data. Adv= Class-advantaged; Disadv= Class-disadvantaged.

Table 3. Men and Women's Average Wages (in dollars) by Institution and Major.

	MEN								WOMEN							
	Full Sample (N=3,520)				BA Only (N=1,740)				Full Sample (N=4,080)				BA Only (N=1,790)			
	Adv	Dis-Adv	p	D/A Ratio	Adv	Dis-Adv	p	D/A Ratio	Adv	Dis-Adv	p	D/A Ratio	Adv	Dis-Adv	p	D/A Ratio
Total	71,676	63,680	**	0.89	73,155	63,809	**	0.87	49,856	46,708	**	0.94	47,555	46,483		0.98
Institutional Selectivity																
Very	77,203	66,642	**	0.86	73,075	63,622	*	0.87	52,788	52,775		1.00	49,233	51,966		1.06
Moderate	69,624	63,146		0.91	75,144	64,402		0.86	48,148	46,074		0.96	47,535	45,778		0.96
Minimal	57,312	55,568		0.97	62,770	56,007		0.89	46,197	43,589		0.94	45,794	45,695		1.00
Open	76,548	74,995		0.98	86,890	73,169		0.84	42,020	42,020		1.00	41,496	41,441		1.00
Major																
Traditional Disciplines																
Arts & Humanities	64,822	52,377	**	0.81	63,581	52,735	*	0.83	48,816	43,459	*	0.89	46,679	40,732		0.87
Business	81,622	68,088	*	0.83	83,838	68,877		0.82	54,893	49,877		0.91	51,691	49,675		0.96
Education	44,762	51,400		1.15	40,601	54,632	*	1.35	39,820	38,090		0.96	38,088	36,403		0.96
Social Sciences	77,525	61,334	**	0.79	84,999	59,927		0.71	51,502	45,272		0.88	48,687	44,290		0.91
STEM	72,266	68,869		0.95	71,195	67,706		0.95	54,925	52,540		0.96	50,655	51,319		1.01
Vocational	61,441	59,426		0.97	65,182	58,976		0.90	49,483	45,441		0.92	49,261	45,589		0.93
Cultural Axis: Volume of High Cultural Capital																
High	66,628	50,856	**	0.76	64,017	51,517	*	0.80	48,590	43,685		0.90	47,493	41,279		0.87
Medium	71,838	62,725	**	0.87	73,960	63,250		0.86	48,654	44,838	*	0.92	45,745	44,482		0.97
Low	73,368	66,324		0.90	77,988	66,754		0.86	53,371	48,997		0.92	52,329	48,252		0.92
Low & Low	73,996	69,621		0.94	73,965	69,158		0.94	58,793	57,925		0.99	51,002	60,401		1.18
Economic Axis																
Economic Elite	85,353	66,426	**	0.78	87,803	67,065	*	0.76	58,394	51,884		0.89	52,460	51,157		0.98
Cultural Elite	66,628	50,856	**	0.76	64,017	51,517	*	0.80	48,590	43,685		0.90	47,493	41,279		0.87
Supports Elites	73,368	66,324		0.90	77,988	66,754		0.86	53,371	48,997		0.92	52,329	48,252		0.92
Versatile	67,337	64,063		0.95	66,054	63,569		0.96	46,874	43,720	*	0.93	44,043	43,900		1.00
Marginalized	54,837	55,214		1.01	56,319	52,560		0.93	47,429	44,913		0.95	39,288	41,957		1.07

Note: p indicates the significance of the t-test for differences between Advantaged and Disadvantage graduates; * =p<0.05; **=p<0.01.Adv= Class-advantaged; Disadv= Class-disadvantaged; D/A Ratio indicates the ratio between disadvantaged graduates' wages and advantaged graduates' wages.

Table 4. Men and Women's Predicted Wages (in dollars) from OLS regression.

	MEN						WOMEN					
	Full Sample			BA Only			Full Sample			BA Only		
	Adv	Disadv	D/A Ratio	Adv	Disadv	D/A Ratio	Adv	Disadv	D/A Ratio	Adv	Disadv	D/A Ratio
Total	59,380	55,414	0.93	60,656	54,695	0.90	41,938	40,642	0.97	39,095	40,339	1.03
Institutional Selectivity												
Very Selective	62,710	53,639	0.86	61,391	48,577	0.79	43,209	43,588	1.01	41,094	42,991	1.05
Moderately Selective	57,832	56,162	0.97	60,777	57,210	0.94	41,228	39,896	0.97	39,041	39,571	1.01
Minimally Selective	51,446	54,637	1.06	54,061	51,098	0.95	38,867	40,114	1.03	35,553	40,682	1.14
Open Admission	70,448	61,439	0.87	75,745	58,144	0.77	37,755	40,418	1.07	33,944	41,591	1.23
Major												
Traditional Disciplines												
Arts & Humanities	54,300	47,931	0.88	56,088	48,692	0.87	40,179	38,892	0.97	37,812	39,445	1.04
Business	61,205	55,495	0.91	60,172	55,809	0.93	43,606	40,607	0.93	39,051	40,281	1.03
Education	48,925	57,892	1.18	44,885	63,110	1.41	40,317	40,979	1.02	38,915	41,923	1.08
Social Science	62,750	53,617	0.85	69,119	52,038	0.75	41,783	39,109	0.94	38,906	37,570	0.97
STEM	62,597	60,497	0.97	64,974	58,019	0.89	44,601	42,046	0.94	41,425	41,516	1.00
Vocational	56,141	52,668	0.94	59,984	51,978	0.87	42,900	41,814	0.97	40,110	39,576	0.99
Cultural Axis: Volume of High Cultural Capital												
High	56,843	46,122	0.81	57,505	46,824	0.81	41,311	39,230	0.95	39,230	39,979	1.02
Medium	59,046	55,252	0.94	59,454	54,798	0.92	41,348	40,484	0.98	39,228	40,265	1.03
Low	59,435	56,102	0.94	61,034	55,705	0.91	44,925	40,417	0.90	41,394	39,151	0.95
Low & Low Interaction	62,373	61,410	0.98	66,076	59,119	0.89	44,523	45,385	1.02	32,745	49,164	1.50
Economic Axis												
Economic Elite	64,716	54,406	0.84	64,525	54,654	0.85	44,354	43,340	0.98	37,939	41,419	1.09
Cultural Elite	57,087	46,197	0.81	57,926	46,843	0.81	41,369	39,281	0.95	38,985	40,103	1.03
Supports the Elite	59,601	55,942	0.94	61,607	55,663	0.90	45,076	40,493	0.90	41,470	39,071	0.94
Versatile	59,520	59,351	1.00	60,331	58,093	0.96	41,042	40,013	0.97	39,760	41,406	1.04
Marginalized	43,663	49,385	1.13	49,435	48,977	0.99	39,312	39,997	1.02	33,906	38,325	1.13
N	1,780	1,740		800	940		1,780	2,300		700	1,100	

Note: Adv= Class-advantaged; Disadv= Class-disadvantaged; D/A Ratio indicates the ratio between disadvantaged graduates' wages and advantaged graduates' wages.

Table 5. Blinder-Oaxaca Decomposition of Differences in Wages between Advantaged and Disadvantaged College Graduates, Men.

	Full Sample (N=3,520)				**BA Only (N=1,740)**			
	All Controls		*No Labor Market*		*All Controls*		*No Labor Market*	
Advantaged	$59,380**		$59,380**		$60,655**		$60,655**	
Disadvantaged	$55,413**		$55,413**		$54,694**		$54,694**	
Difference	1.072**		1.072**		1.109**		1.109**	
Explained	1.050**		1.032**		1.039		1.019	
Unexplained	1.021		1.038		1.068		1.089*	
	Explained	***Unexplained***	***Explained***	***Unexplained***	***Explained***	***Unexplained***	***Explained***	***Unexplained***
Institution								
Very Selective	1.002	1.029	1.006	1.028	0.993	1.020	0.996	1.035
Moderately Selective	1.001	0.980	1.001	0.982	0.998	0.947	0.999	0.956
Minimally Selective	1.001	0.989	1.002	0.992	1.000	0.991	1.000	0.988
Open Admission	0.997	1.001	0.997	1.001	0.996	1.003	0.996	1.003
Major								
Traditional								
Arts & Humanities	0.995*	1.011	0.993**	1.009	0.994	1.008	0.992	1.008
Business	0.996	1.011	0.989**	1.008	0.996	0.994	0.987*	1.002
Education	1.000	0.987**	1.003	0.989*	1.000	0.981**	1.001	0.984**
Social Sciences	1.004	1.013	1.006*	1.016	1.004	1.019	1.006	1.016
STEM	1.001	0.994	1.001	0.988	1.001	1.004	1.001	0.993
Vocational	1.001	1.001	1.002	1.000	1.000	1.005	1.002	1.005
Cultural Axis								
High	0.996*	1.015	0.993**	1.012	0.995	1.008	0.991*	1.008
Medium	1.000	0.991	1.001	0.995	0.999	0.970	1.001	0.970
Low	0.999	0.995	0.998	0.996	0.999	0.986	0.998	0.994
Low & Low Interaction	1.004*	0.987	1.006*	0.988	1.004	0.993	1.006	0.988
Economic Axis								
Economic Elite	0.997	1.026	0.995	1.025	0.993	1.010	0.990*	1.004
Cultural Elite	0.998	1.017	0.994*	1.013	0.997	1.011	0.994	1.007
Supports the Elite	0.997	0.999	0.996	0.997	0.998	0.993	0.996	0.993
Versatile	1.002	0.976	1.002	0.976	1.003	0.972	1.003	0.959
Marginalized	0.999	0.992	0.999	0.995	0.999	0.996	0.999	1.001
Education								
More than BA	1.002	0.940*	0.998	0.944*				
GPA	0.998	1.298	0.997	1.098	0.995	1.160	0.995	0.911

SAT Score	0.986	1.227	1.005	1.257*	0.985	1.040	0.996	1.117
Double Major	1.000	1.001	1.000	1.002	0.997	0.999	0.997	1.001
Private Institution	1.001	0.991	1.000	0.998	1.001	1.015	1.000	1.005
Small Institution	1.002	0.985	1.002	0.974	1.006	0.966	1.006	0.973
Chose College Based	0.999	0.998	1.000	0.984	0.999	0.992	0.999	0.995
Demographics								
Single	0.998	1.003	0.997	0.995	0.997	0.991	0.996	0.991
Number of Dependents	1.000	1.015	1.000	1.013	1.002	1.054	1.002	1.066
White	1.001	0.964	1.001	0.953	1.002	0.951	1.003	0.919
Occupation								
Clerical	1.001	1.003			1.002	1.002		
Blue Collar	1.008**	1.002			1.008*	0.997		
Business Support	0.998	1.004			0.997	1.009		
Sales	1.001	1.007			1.004	1.010		
Legal Professional	1.007**	1.004			1.000	1.000		
Legal Support	1.000	0.999			0.999	0.999		
STEM Professional	1.009**	1.037**			1.007	1.022		
STEM Support	1.002	1.002			1.000	0.999		
Educators	1.002	1.012			1.000	1.009		
Human Services	1.002	1.002			1.002	1.001		
Humanities and Arts	0.998	0.998			1.001	1.000		
Managers	0.996	1.030*			0.997	1.037		
Other	0.999	0.993			1.000	0.987		
Occupational Sector								
Self Employed	1.001	1.006			1.001	1.016		
For Profit	1.003	1.013			1.007	0.988		
Not for Profit	0.997	0.982*			1.000	0.988		
Local Government	0.997*	1.001			0.997	0.998		
State Government	1.003	0.998			1.004	0.995		
Federal Government	1.000	1.000			0.998	1.002		
Military	1.000	0.999			1.001	0.998		
Occupational Characteristics								
Hours	1.012	1.079	1.014	1.122	1.039	1.021	1.044	1.167
Urbanicity	1.005	0.940	1.007	0.952	1.015	0.911	1.017	0.940

Note: Exponentiated coefficients; * =p<0.05; **=p<0.01

Table 6. Blinder-Oaxaca Decomposition of Differences in Wages between Advantaged and Disadvantaged College Graduates, Women.

	Full Sample (N=4,080)				**BA Only (N=1,790)**			
	All Controls		*No Labor Market Controls*		*All Controls*		*No Labor Market Controls*	
Advantaged	$41,937**		$41,937**		$39,095**		$39,095**	
Disadvantaged	$40,641**		$40,641**		$40,339**		$40,339**	
Difference	1.032		1.032		0.969		0.969	
Explained	1.071**		1.059**		1.059*		1.046*	
Unexplained	0.963		0.975		0.915*		0.926	
	Explained	***Unexplained***	***Explained***	***Unexplained***	***Explained***	***Unexplained***	***Explained***	***Unexplained***
Institution								
Very Selective	1.009*	0.993	1.011*	0.988	1.009	1.010	1.010	1.003
Moderately Selective	1.001	1.007	1.001	1.002	1.000	1.038	1.000	1.035
Minimally Selective	1.002	0.995	1.002	0.994	1.000	0.995	1.000	0.992
Open Admission	1.001	0.997	1.002	0.997	1.001	0.996	1.002	0.997
Major								
Traditional								
Arts & Humanities	0.998	1.007	0.996*	1.005	0.999	1.001	0.996	1.012
Business	0.999	1.015	0.995*	1.010	1.000	1.004	0.994	1.000
Education	1.000	0.998	1.002	1.006	1.000	0.997	1.000	1.010
Social Sciences	1.000	1.010	1.002	1.006	0.999	1.010	0.994	0.998
STEM	1.000	1.014	1.000	1.001	0.999	1.010	0.999	1.014
Vocational	1.000	1.001	1.000	1.004	1.000	1.004	1.000	1.006
Cultural Axis								
High	0.999	1.011	0.995*	1.013	1.000	1.018	0.994	1.029*
Medium	1.000	1.024	1.000	1.031	1.000	1.052	0.999	1.042
Low	0.999	1.025*	0.996	1.021	1.000	1.048*	0.994	1.051*
Low & Low Interaction	1.001	1.000	1.003	0.998	1.000	0.985	1.001	0.988
Economic Axis								
Economic Elite	1.000	1.005	1.000	1.005	1.000	0.998	1.000	0.996
Cultural Elite	0.999	1.010	0.997	1.011	1.001	1.008	0.997	1.024
Supports the Elite	0.998	1.024*	0.993**	1.019	0.999	1.035	0.990*	1.042*
Versatile	1.000	1.015	0.999	1.024	1.001	1.012	1.000	1.025
Marginalized	1.000	1.000	1.000	0.996	1.001	0.997	1.001	0.994
Education								
More than BA	1.009**	1.048	1.004	1.051				

GPA	1.001	0.873	1.001	0.847	1.001	0.950	1.001	0.854
SAT Score	0.987	0.985	1.024	1.012	0.982	0.911	1.008	0.924
Double Major	1.000	0.994	1.000	0.991	1.000	0.997	1.000	0.996
Private Institution	1.001	1.008	1.001	1.015	0.998	1.044	0.997	1.046
Small Institution	1.005*	0.981	1.006*	0.973	1.009	0.961	1.013	0.959
Chose College Based	0.997	0.982	0.997	0.985	0.996	0.982	0.996	0.977
Demographics								
Single	0.996*	1.006	0.997	1.008	0.998	1.007	0.998	1.017
Number of Dependents	1.000	1.009	1.004	1.015	0.999	1.016	1.002	1.027
White	1.001	1.006	1.002	0.996	1.004	1.071	1.006	1.004
Occupation								
Clerical	1.008**	0.999			1.007	1.020		
Blue Collar	1.001	1.002			1.001	1.011		
Business Support	0.999	0.995			0.999	0.999		
Sales	1.000	1.000			1.000	0.996		
Legal Professional	1.005*	1.002			1.001	0.997		
Legal Support	1.000	1.001			1.000	1.001		
STEM Professional	1.005	0.993			1.003	1.015		
STEM Support	1.000	1.001			0.999	1.006		
Educators	1.005	0.998			0.998	0.981		
Human Services	1.002	1.002			1.002	1.001		
Humanities and Arts	1.001	0.997			1.002	1.005		
Managers	1.002	1.000			1.002	1.001		
Other	1.001	0.998			1.000	0.989		
Occupational Sector								
Self Employed	0.996	0.995			0.999	0.973		
For Profit	1.001	1.011			1.001	1.078		
Not for Profit	0.999	0.994			0.998	1.006		
Local Government	1.000	1.002			1.000	1.006		
State Government	1.000	0.994			1.000	0.998		
Federal Government	0.998	1.001			0.999	1.002		
Military	1.000	1.000			1.000	0.999		
Occupational Characteristics								
Hours	0.914	1.041	0.913	1.177	0.656*	1.606	0.654*	1.822
Urbanicity	1.013*	1.003	1.016*	1.020	1.019*	1.068	1.024*	1.089

Note: Exponentiated coefficients; * =p<0.05; **=p<0.01

Appendix

Table A1. Description of variables in the study sample.

Variable	%	Mean	SD
Education			
More than BA (in 2003)	53.57%		
GPA		293	96
SAT Score		1008	196
Double Major	5.25%		
Private Institution	34.26%		
Small Institution	33.37%		
Chose College for Job Placement Rates	27.32%		
Demographics			
Single (in 2003)	20.20%		
Number of Dependents (in 2003)		1.05	1.19
White	87%		
Occupation (in 2003)			
Clerical	6.14%		
Blue Collar	5.68%		
Business Support	7.62%		
Sales	5.95%		
Legal Professional	2.80%		
Legal Support	0.50%		
STEM Professional	23.75%		
STEM Support	1.66%		
Educators	21.24%		
Human Services	4.77%		
Humanities and Arts Professionals	3.70%		
Managers	10.39%		
Other	5.62%		
Occupational Sector (in 2003)			
Self Employed	8.46%		
For Profit	45.75%		
Not for Profit	15.72%		
Local Government	4.20%		
State Government	6.64%		
Federal Government	2.60%		
Military	1.10%		
Occupational Characteristics (in 2003)			
Hours		60	117.59
Urbanicity		2	1.98

Table A2. (Exponentiated) coefficients^ from OLS regression on (log) wages in 2003.

	Full Sample			BA Only			Full Sample			BA Only		
	Adv	**Disadv**	**p**	**Adv**	**Disadv**	**p**	**Adv**	**Disadv**	**p**	**Adv**	**Disadv**	**p**
Institution												
Moderately Selective (Ref)												
Very Selective	1.084	0.955		1.010	0.849*		1.048	1.093*		1.053	1.086	
Minimally Selective	0.890	0.973		0.890	0.893		0.943	1.005		0.911	1.028	
Open Admission	1.218	1.094		1.246	1.016		0.916	1.013		0.869	1.051	
Major												
Traditional Disciplines												
STEM (Ref)												
Arts & Humanities	0.867**	0.792**		0.863*	0.839		0.901	0.925		0.913	0.950	
Business	0.978	0.917		0.926	0.962		0.978	0.966		0.943	0.970	
Education	0.782**	0.957	*	0.691**	1.088	*	0.904	0.975		0.939	1.010	
Social Sciences	1.002	0.886		1.064	0.897		0.937	0.930		0.939	0.905	
Vocational	0.897	0.871*		0.923	0.896		0.962	0.994		0.968	0.953	
Cultural Axis												
High (Ref)												
Medium	1.039	1.198**		1.034	1.170		1.001	1.032		1.000	1.007	
Low	1.046	1.216**		1.061	1.190		1.087	1.030		1.055	0.979	
Low & Low Interaction	1.097	1.331**		1.149	1.263*		1.078	1.157*		0.835	1.230*	
Economic Axis												
Economic Elite (Ref)												
Cultural Elite	0.882*	0.849*		0.898	0.857		0.933	0.906		1.028	0.968	
Supports the Elite	0.921	1.028		0.955	1.018		1.016	0.934		1.093	0.943	
Versatile	0.920	1.091	*	0.935	1.063		0.925	0.923		1.048	1.000	
Marginalized	0.675**	0.908		0.766	0.896		0.886	0.923		0.894	0.925	
Education												
More than BA	0.961	1.101*	*				1.150**	1.052				
GPA	1.001**	1.000		1.001	1.000		1.000	1.001*		1.000	1.000	
SAT	1.000	1.000*		1.000	1.000		1.000	1.000		1.000	1.000	
Double Major	0.963	0.942		0.824	0.858		0.931	1.060		0.948	1.016	
Private Institution	1.003	1.032		1.049	0.999		1.093*	1.067		1.190*	1.047	
Small Institution	0.934	0.989		0.864*	0.991		0.866**	0.921*		0.822	0.929	

Chose College Based on Job	0.972	0.981	0.956	0.981	0.927	0.987	0.910	0.966	
Demographics									
Single	0.928	0.914	0.930	0.973	0.937	0.908**	0.960	0.922	
Number of Dependents	1.036*	1.025	1.063*	1.026	1.004	0.997	1.004	0.994	
White	1.024	1.069	1.020	1.079	1.012	1.004	1.124	1.039	
Occupation									
Clerical (Ref)									
Blue Collar	0.836*	0.875	0.855	0.913	1.147	1.042	1.141	0.989	
Business Support	1.295**	1.341**	1.360**	1.330**	1.351**	1.404**	1.201	1.450**	
Sales	1.109	1.095	1.149	1.133	1.249*	1.226*	1.118	1.400**	
Legal Professional	1.585**	1.431**	.	1.228	1.643**	1.490**	1.037	2.078	
Legal Support	0.851	1.018	0.722	0.860	1.389**	1.155	1.215	1.330*	
STEM Professional	1.271**	1.188**	1.296**	1.250**	1.530**	1.573**	1.594**	1.744**	
STEM Support	0.820	0.729**	0.743	0.845	1.290*	1.183	1.502**	1.342**	
Educators	0.975	0.923	1.046	0.846	0.967	0.960	0.670	0.916	
Human Services	0.851	0.845	0.943	0.913	1.208	1.130	1.090	1.267*	
Humanities and Arts	0.899	1.050	1.038	1.106	1.278**	1.337**	1.245*	1.366**	
Managers	1.345**	1.189*	1.404**	1.223*	1.436**	1.428**	1.223	1.453**	
Other	0.905	1.116	0.838	1.122	1.352*	1.375**	1.029	1.418**	
Occupational Sector									
Self Employed (Ref)									
For Profit	0.958	1.001	0.926	1.093	1.357**	1.239*	1.567*	0.992	*
Not for Profit	0.695**	0.882	0.752*	1.035	* 1.153	1.117	1.249	0.883	
Local Government	0.979	1.035	0.947	1.205	1.382**	1.245*	1.545*	0.900	*
State Government	0.716**	0.802**	0.650**	0.915	* 1.138	1.178	1.296	0.997	
Federal Government	0.978	1.064	1.064	1.104	1.549**	1.383**	1.594*	1.052	
Military	0.978	1.108	0.974	1.406*	1.442	1.366	1.225	1.519	
Occupational Characteristics									
Hours	1.007**	1.005*	1.005	1.005	1.014**	1.014**	1.024**	1.016**	
Urbanicity	0.960**	0.982*	0.936**	0.971**	0.961**	0.960**	0.985	0.960**	
R2	0.231	0.205	0.224	0.217	0.217	0.256	0.279	0.315	
N	1,780	1,740	800	940	1,780	2,300	700	1,100	

^Exponentiated coefficients can be interpreted in terms of percent difference in mean wages for a unit increase in a continuous variable and compared to the reference category for categorical variables; p indicates the significance of a t-test*=p<.0.05; **=p<0.01