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College Degree Majors and Associated Earnings: Are There Differences Between People with Visual Impairments and the General Population?

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Abstract

BACKGROUND: College graduates without visual impairments earn more than college graduates with visual impairments. Differences in degree majors obtained or differences in earnings associated with degree majors for the two groups might explain this discrepancy in earnings.

OBJECTIVE: The purpose of this study was to examine (a) differences in degree major categories and (b) relationships between degree majors and earnings for college graduates with and without visual impairments.

METHOD: We obtained data for college-educated, working-age adults from the American Community Survey. We utilized descriptive statistics to compare degree major categories by visual impairment and multiple regression to evaluate predictors of annual earnings for college graduates who worked full-time/full-year.

RESULTS: Small differences in degree majors obtained were found between college graduates with and without visual impairments. Significant predictors of earnings included 23 out of 25 degree majors and several other demographic and socioeconomic characteristics. Effects of three majors and several other variables differed for people with visual impairments.

CONCLUSION: People with visual impairments were slightly more likely to hold degrees with lower-paying majors and less likely to hold degrees with two higher-paying majors. Regardless of degree major, college graduates with visual impairments had substantially lower average earnings than the general population.

Keywords: blind, low vision, visual impairment, postsecondary education, college degree major, earnings

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People who are blind or have low vision (i.e., those with visual impairments) are much less likely to be employed than the general population (McDonnall & Sui, 2019), and many of those who work earn less than a living wage (McDonnall et al., 2021). Employment is associated with several benefits (Modini et al., 2016; van der Noordt et al., 2014), but earnings are also important. Lack of sufficient income is associated with substantial stress (PwC, 2016, 2022) and does not allow one to live comfortably. Financial security, on the other hand, is associated with many positive outcomes, such as better health, social connectedness, and happiness, and is considered a key component of overall well-being (Cruwys et al., 2019; Netemeyer et al., 2018). Sufficient earnings are also essential to allow one to contribute to retirement savings, which are lacking for the majority of the U.S. population (Dickler, 2022). Unfortunately, people with disabilities, including those with visual impairments, are much less likely to have sufficient income than people without disabilities (Crudden et al., 2022; Paul et al., 2021).

Education level is associated with earnings, and its impact on earnings is intensified when one considers not just current earnings but lifetime earnings (Tamborini et al., 2015). People with a bachelor's degree earn substantially more than people with lower levels of education (referred to as the "college earnings premium"; Eckstein & Nagypál, 2004), and this holds true for people with visual impairments (McDonnall et al., 2022). Yet people with visual impairments who work earn substantially less than the general population (defined in this study as people *without* visual impairments), even when accounting for education level (McDonnall et al., 2022).

Possessing a 4-year college degree is strongly associated with being employed for people with visual impairments (Lund & Cmar, 2019a, 2019b; McDonnall & Tatch, 2021) as well as

being associated with greater earnings (McDonnall et al., 2022). Clearly, obtaining a college degree is valuable for people with visual impairments, potentially more so for this population than for the general population given its strong association with employment outcomes. Yet a much smaller percentage of people with visual impairment of all ages have a college degree than those without disabilities (McDonnall & Tatch, 2021).

The college earnings premium differs noticeably by degree major: graduates with certain degree majors earn substantially more, on average, than graduates with other majors (Bankrate, 2021; Carnevale et al., 2015). This topic has received considerable attention in the economics literature (Altonji et al., 2014; Angle & Wissmann, 1981; Arcidiacono, 2004; Kirkeboen et al., 2016; Light & Schreiner, 2019; Webber, 2014, 2016). A thorough analysis of return on investment for a bachelor's degree determined that both degree major and institution had an impact on return on investment, but that degree major mattered more than institution attended (Cooper, 2021). The study also found that some majors can have a *negative* return on investment, meaning that the cost of obtaining the college degree outpaces the financial benefit in terms of higher earnings obtained because of the degree. In fact, 37% of degree major programs at specific institutions had a neutral or negative return on investment (Cooper, 2021). Undoubtedly, the choice of degree major can have a big impact on earnings for college graduates.

In addition to education level, other demographic factors known to be associated with earnings for the general population are gender (men earn more than women), race (Whites earn more than minorities, with the exception of Asians), and age (earnings increase with age to a point, then begin to decrease; Bureau of Labor Statistics, 2022). Few studies have investigated predictors of earnings for people with visual impairments: only three studies were identified that utilized earnings as an outcome variable (Bell & Mino, 2013; Capella, 2001; Estrada-Hernández,

2008). Two studies were conducted with annual vocational rehabilitation case service (RSA-911) data and utilized multiple regression to identify predictors of earnings. The first documented that younger age, higher education level, and a greater amount of money expended on the case were significantly and substantively associated with higher earnings, while agency type, number of services received, and months receiving services were not (Capella, 2001). The second study was a replication of the first and had similar findings, but it included two additional demographic variables: male gender was significantly and substantively associated with higher earnings whereas race was not (Estrada-Hernández, 2008). The final study that investigated correlates of earnings utilized univariate analyses with a survey sample and found that male gender, higher education level, and being a braille reader were associated with greater earnings, while age, race, and level of vision loss were not associated with earnings (Bell & Mino, 2013).

Although we are aware of some factors that are associated with earnings for people with visual impairments, many factors have likely not been identified or investigated. For example, we can expect degree major to impact earnings for college graduates with visual impairments as it does for the general population. However, we do not know if college graduates with visual impairments have similar degree majors as the general population. Perhaps differences in degree majors selected is a relevant factor that explains some of the discrepancy in earnings between college graduates with visual impairments and the general population of college graduates. A small amount of research has been conducted regarding degree majors of college students with visual impairments.

Data from the mid-1990s indicate that undergraduates with visual impairments in the United States differed in their degree majors compared to undergraduates without disabilities (Horn & Berktold, 1999). A smaller percentage of students with visual impairments pursued

degrees in engineering, the humanities, and health, while a higher percentage pursued degrees in education and computer/information science. Also using data from the mid-1990s, Richardson and Roy (2002) found that college students with visual impairments in the United Kingdom pursued different degree majors than the general population: fewer sought degrees in the medical or medical-related fields, veterinary science, education, agriculture, architecture, and mathematical science, and more sought degrees in physical sciences, computer science, social studies, and the humanities. Both studies focused on college students, not college graduates; therefore, some of the students likely did not graduate with the degree or major they were pursuing. The Kessler Foundation conducted a study of recent college graduates with disabilities (including some with visual impairments) and without disabilities. Recent graduates with disabilities were less likely to major in business or engineering, and more likely to major in psychology, communications, and visual and performing arts compared to graduates without disabilities (Phillips et al., 2022). Although this study is more current and included data from college graduates rather than students, the article did not provide results by disability type.

We could not locate any research studies that specifically focused on earnings of visually impaired college graduates. We know that earnings of college graduates with visual impairments are lower than earnings for the general population of college graduates (McDonnall et al., 2022), but we do not know the reasons for this earnings differential. One potential factor is college degree major. Although we assume that degree major is associated with earnings for college graduates with visual impairments, we do not know how the relationships between earnings and degree major compare to relationships found in the general population. Do college graduates with visual impairments possess different majors than the general population, and, if so, do these differences explain some of the earnings gap? Do majors that afford significantly higher earnings

for the general population hold the same premium for people with visual impairments? These are the types of queries that guided this research study. The specific research questions investigated were:

1. What are the most common degree major categories for college graduates with visual impairments, and how do their major categories compare to the majors of the general population?
2. Are the relationships between specific degree majors and earnings the same for college graduates with visual impairments as for the general population of college graduates?
3. Are the relationships between other factors associated with earnings (i.e., demographic and socioeconomic characteristics) the same for college graduates with visual impairments as for the general population of college graduates?

Method

Data Source and Sample

The person-level dataset from the 2015-2019 American Community Survey (ACS) 5-Year Public Use Microdata Sample (PUMS) was utilized for this study. The ACS, administrated by the Census Bureau, aims to provide nationwide information about the social, economic, housing, and demographic characteristics of the U.S. population (U.S. Census Bureau, 2020). ACS data are collected throughout each year from approximately 3.5 million households and are pooled across the calendar year to provide annual estimates. The 1-year ACS PUMS files contain de-identified records for approximately two-thirds of the ACS sample for a given year (U.S. Census Bureau, 2021c). The Census Bureau combines five 1-year PUMS files to create the 5-year PUMS, which includes data for about 5% of the U.S. population.

The sample for Research Question 1 included 2,989,490 individuals who had a bachelor's

degree and were between 21 and 64 years old (weighted $N = 60,091,069$). For Research Questions 2 and 3, we further restricted the sample to individuals who worked full-time/full-year, defined as working 35 hours or more per week and 50 to 52 weeks per year (Ryan, 2012). We also excluded individuals whose earnings were in the top 1% and bottom 1% of the sample to minimize severe outliers at both ends of the distribution, resulting in a sample size of 1,919,635 for the earnings analysis (weighted $N = 39,140,762$).

Dependent Variable

The dependent variable was annual earnings, defined as total personal income (in U.S. dollars) from wages, salary, and self-employment in the previous 12 months. Wages or salary income included wages, salary, commission, bonuses, and tips from all jobs before deductions for taxes, whereas self-employment income included individuals' net income from their own nonfarm or farm businesses after business expenses. We applied the inflation adjustment factor in the 2015-2019 ACS 5-Year PUMS to adjust all earnings to reflect 2018 dollars, as recommended when working with this dataset (U.S. Census Bureau, 2021a).

Independent Variables

Demographic and Socioeconomic Characteristics

The primary variable of interest was visual impairment. This variable was dichotomously coded (0 = *no*, 1 = *yes*) according to individuals' responses to the ACS question "Is this person blind or does he/she have serious difficulty seeing even when wearing glasses?" Demographic and socioeconomic variables associated with earnings were also included in the analysis. Age was a continuous variable and was grand-mean centered based on the average age of the full-time/full-year college graduate sample. Gender was dichotomously coded (0 = *male*, 1 = *female*). We used two indicator variables for race: Black race and other races (0 = *no*, 1 = *yes*); White was

the reference group. Ethnicity was dichotomously coded (0 = *not Spanish/Hispanic/Latino*, 1 = *Spanish/Hispanic/Latino*). Other disabilities (0 = *no*, 1 = *yes*) indicated the presence of one or more disabilities (i.e., hearing, cognitive, ambulatory, self-care, or independent living difficulties) other than visual impairment. If a person had two bachelor's degrees, double major was coded 1; otherwise, it was coded 0. If a person had a master's degree or above, advanced degree was coded 1; otherwise, it was coded 0. Social Security Disability Insurance (SSDI) receipt indicated whether an individual received Social Security benefits any time within the past 12 months (0 = *no*, 1 = *yes*). The ACS dataset does not differentiate between SSDI and early Social Security retirement benefits; therefore, it is possible but unlikely that some 62 to 64-year-old full-time/full-year workers in our sample received early retirement benefits rather than SSDI. Class of worker indicates the type of ownership of the organization for which a person works (U.S. Census Bureau, 2021b). Three indicators of class of worker included private non-profit, government, and self-employment; private for-profit was the reference group. State-level median annual earnings, based on data released by the U.S. Bureau of Labor Statistics in May 2019, was a continuous control variable, included to account for differences in earnings due to state-level variation.

Degree Majors

The ACS questionnaire includes an item about participants' bachelor's degrees: "Please print below the specific major(s) of any BACHELOR'S DEGREES this person has received. (For example: chemical engineering, elementary teacher education, organizational psychology)." ACS staff classified the written responses into 1 of 173 specific degree majors, for up to two majors per person. We grouped the 173 specific degree majors into 13 broad degree major categories based on the ACS 2019 Code List (U.S. Census Bureau, n.d.) for Research Question

1. We identified the 25 most common specific degree majors for all people between ages 21 and 64 with visual impairments who had a bachelor's degree for Research Question 2. The top 25 degree majors accounted for 63.1% of all majors held by college graduates with visual impairments. We created 25 dichotomous variables indicating whether a person had each of the most common degree majors (0 = *no*, 1 = *yes*), which allowed us to compare earnings for each major to earnings for all other majors.

Data Analysis

To answer Research Question 1, we computed relative frequencies of bachelor's degrees received by each major category and identified the most common degree major categories for all working-age college graduates with and without visual impairment. To address Research Questions 2 and 3, we used multiple regression to investigate factors associated with annual earnings for college graduates who worked full-time/full-year. We used the following model-building process for the multiple regression analysis. First, we ran a model that included demographic and socioeconomic characteristics and the 25 degree majors. Then, we added interactions between visual impairment and each independent variable. Last, we removed all interactions with $p > .10$ to create the final model. We utilized SAS 9.4 PROC SURVEYMEANS and PROC SURVEYFREQ for descriptive statistics and PROC SURVEYREG for regression analyses. Personal weights from the 2015-2019 ACS 5-year PUMS file were applied in all analyses to obtain nationally representative estimates and adjusted standard errors.

Results

Table 1 presents degree major categories for all working-age college graduates with and without visual impairments. The four most common degree major categories for both groups

were (a) Business, (b) Arts & Humanities, (c) Education, and (d) Science & Engineering Related Fields. Compared to the general population of college graduates, a smaller percentage of graduates with visual impairments had degrees in the Engineering and Biological, Agricultural, & Environmental Sciences categories. A larger percentage of college graduates with visual impairments had degrees in Education and Consumer Services & Recreation than did graduates without visual impairments.

Table 2 contains descriptive information about the demographic and socioeconomic characteristics of college graduates with and without visual impairments who worked full-time/full-year. Average annual earnings were \$93,219 (95% CI [93,097.71, 93,339.76]) for all college graduates who worked full-time/full-year. Graduates with visual impairments earned 87.3% ($M = \$81,433$, 95% CI [80,072.67, 82,794.03]) of what graduates without visual impairments earned ($M = \$93,307$, 95% CI [93,185.91, 93,427.34]).

Table 3 provides results of the multiple regression analysis predicting annual earnings of college graduates based on degree major and other factors. The independent variables in the model explained 17.3% of the variance in earnings. When controlling for demographic and socioeconomic variables and degree majors, college graduates with visual impairments had substantially lower earnings than the general population of college graduates. According to the model estimates, college graduates with visual impairments earned 78.2% of what college graduates without visual impairments earned. Of the 25 degree majors included in the model, 23 were significant predictors of earnings for all college graduates: 12 majors were associated with higher earnings, and 11 were associated with lower earnings. The only two majors that did not significantly predict earnings were Business Management & Administration and Communications. People with visual impairments who had Computer Science or Accounting

degrees had significantly lower earnings than the general population with those degrees, although they still earned more on average than people with other majors. People with visual impairments who had a General Education degree had significantly *higher* earnings than the general population who held those degrees, although they still earned less on average than people with other majors.

Several other factors had significant relationships with earnings of college graduates. Older age and having an advanced degree predicted higher earnings for all college graduates, but the effects of both variables were smaller for graduates with visual impairments. Being female and having one (or more) non-visual disability predicted lower earnings for all college graduates, but these effects were smaller for graduates with visual impairments. Class of worker was also associated with earnings for college graduates; compared to private for-profit workers, self-employed workers had slightly higher earnings, whereas non-profit and government workers had lower earnings. The earnings gaps between for-profit workers and non-profit and government workers were much smaller for people with visual impairments compared to the general population. Additional variables that predicted lower earnings for both groups included Black race, other race, Hispanic ethnicity, and SSDI receipt.

Discussion

The purpose of this study was to investigate factors associated with the earnings gap for college graduates with visual impairments. We primarily wanted to determine whether degree major explained some of the gap in earnings between people with visual impairments and the general population, so we first identified degree major categories for people with visual impairments and evaluated similarities and differences between the two groups. The most popular degree major categories for people with visual impairments were Business, Arts &

Humanities, and Education. Comparing degree major categories, we found that only four major categories had greater than a 1 percentage point difference between the visually impaired and general populations. However, the degree categories with a higher percentage of people with visual impairments consisted of lower-paying fields (Education and Consumer Services & Recreation) while the categories with a higher percentage of the general population contained higher-paying fields (Engineering and Biological, Agricultural, & Environmental Sciences). These differences may explain some of the visual impairment earnings gap among college graduates.

Although our samples include working-age adults who may have obtained their college degree prior to experiencing vision loss, some individuals likely had their visual impairments from an early age. It is relevant to consider whether inaccessible education may have impacted the percentage of people with visual impairments who obtained degrees in high-earning technical fields. The many challenges to providing appropriate STEM education to students with visual impairments have been well-documented in the literature (Bell & Silverman, 2019; Cryer, 2013; Edwards & Green, 2014; Kahn & Lewis, 2014). This problem is so substantial at all levels of the educational system that researchers and other stakeholders have developed a national research agenda for STEM education for students with visual impairments (Lu & Wild, 2022). For students to succeed in a college Engineering program, one of the fields for which fewer graduates with visual impairments have a degree, they must have a strong foundation in mathematics, science, and technology. Therefore, their K-12 education must have adequately prepared them for the rigors of such a program, and this is not happening consistently for youth with visual impairments.

As documented in many previous studies (Bankrate, 2021; Carnevale et al., 2015;

Cooper, 2021), we found that earnings differed by most degree majors for the entire sample. Only three majors were associated with a different amount of earnings for people with visual impairments: two earned substantially less on average (Accounting and Computer Science) while one earned substantially more (General Education). These findings support the conclusion that the relationship between earnings and specific degree major is generally not different for people with visual impairments than the general population, although there may be differences for a few majors.

Several other factors associated with earnings had different effects for people with visual impairments. The positive effects of age and having an advanced degree on earnings are attenuated for people with visual impairments: the positive effects are still present but are smaller. A smaller earnings premium for an advanced degree has also been documented for people with hearing impairments (Benito et al., 2016). The negative earnings effects of being female and of having a non-visual disability are also attenuated for people with visual impairments: the negative effects are not as large, although they are still present. Previous research has documented greater disadvantages in terms of employment for men with disabilities compared to women (Ballo, 2020; Sevak et al., 2015), and this research adds to that literature. The other factor that had a significantly different effect for people with visual impairments was class of worker: the negative earnings effect of working for private non-profit organizations and the government (compared to private for-profit organizations) was diminished for people with visual impairments. For example, the negative earnings differential for people with visual impairments who worked in a government job was about half that for members of the general population.

Even when controlling for demographic, class of worker, and education variables,

average annual earnings for people with visual impairments were substantially lower than for the general population, regardless of degree major. Clearly, other factors will impact one's earnings, including the specific job held. Although degree major can qualify people for certain jobs, the jobs people obtain may not relate to their major. In addition, having a visual impairment might impact the job a person is able to obtain, as some jobs require vision (e.g., pilot, surgeon) and therefore would not be open to someone who is blind or has a significant visual impairment. We know that women tend to obtain occupations with lower earnings potential relative to men, even with the same degree major (Sloane et al., 2021). Perhaps the same is true for people with visual impairments, compared to the general population. The Kessler Foundation study found that recent college graduates with disabilities were significantly less likely to work in regular, permanent positions and more likely to work in consultant or freelance jobs, or for temporary agencies (Phillips et al., 2022). These kinds of differences may exist for the people with visual impairments in this study. College graduates with disabilities are more likely to work in person-related, helping jobs than people without disabilities (Kessler Foundation, 2020), and many people with visual impairments work in the blindness and low vision field (Revillard, 2022), which may be by choice or related to lack of opportunities in other fields. Anecdotally, we know that some people with visual impairments work in a blindness-related field due to a lack of job opportunities in their degree field.

Limitations and Future Research Directions

This study has several limitations that should be acknowledged. First, the ACS data relies solely on self-report. Thus, earnings could be reported inaccurately, either intentionally or inadvertently. Also, we cannot confirm that people who reported visual impairment had an uncorrectable visual impairment or determine the severity of their impairment. We are also

unable to establish when the person experienced vision loss, although given that visual impairment is associated with aging, many likely experienced vision loss after receiving their bachelor's degree. In those cases, visual impairment would not have influenced their degree major, but it may have prompted them to change careers. Those factors and other variables that may be associated with earnings (e.g., the specific job held, job tenure) would be important to consider in future investigations of college graduates with visual impairments. Future research is also needed to evaluate differences in earnings of people with visual impairments and people without visual impairments for specific jobs.

Conclusion

College degree major is associated with earnings for all graduates, and the strength of the relationship differed for people with visual impairments and the general population for only three majors out of the 25 studied. Regardless of degree major and controlling for several important predictors of earnings, earnings for college graduates with visual impairments were significantly lower than earnings for the general population. Differences in earnings by specific degree major do not appear to be a key factor in this earnings disparity. However, differences in degree majors held by college graduates with visual impairments versus the general population may explain a small portion of the observed disparity in earnings, as people with visual impairments are more likely to hold degrees associated with lower earnings and less likely to hold high-earning degrees. It is vital that youth with visual impairments be informed about differences in earnings based on degree major, so they can make a fully informed choice regarding their college major. In addition, the K-12 educational system must adequately prepare youth with visual impairments in STEM to provide them with the foundational knowledge necessary to explore and pursue higher-earning majors, if that is their choice.

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Conflict of Interest

The authors declare that they have no conflict of interest.

Ethics Statement

This study did not require IRB approval as we utilized publicly available American Community Survey data.

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Informed Consent

N/A

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Table 1

Degree Major Categories for College Graduates With and Without Visual Impairments (VI)

Degree major category	With VI		Without VI	
	<i>n</i>	%	<i>n</i>	%
Business	136,592	20.9	13,750,000	20.9
Arts & Humanities	86,581	13.2	8,584,146	13.1
Education	75,765	11.6	6,226,249	9.5
Science & Engineering Related Fields	61,838	9.4	6,039,285	9.2
Consumer Services & Recreation	52,817	8.1	4,123,433	6.3
Social Science	50,664	7.7	5,277,126	8.0
Psychology	38,093	5.8	3,304,317	5.0
Engineering	35,640	5.4	4,952,731	7.5
Biological, Agricultural, & Environmental Sciences	34,896	5.3	4,419,793	6.7
Computers, Mathematics & Statistics	30,733	4.7	3,390,648	5.2
Communications	27,728	4.2	3,115,524	4.7
Physical & Related Science	18,195	2.8	1,953,694	3.0
Multidisciplinary Studies	5,699	0.9	579,095	0.9

Note. Weighted $N = 60,091,069$ people and 66,374,116 degree majors. Data from the 2015-2019 American Community Survey 5-year Public Use Microdata Sample. Estimates are weighted to be nationally representative.

Table 2
Descriptive Statistics for College Graduates Who Worked Full-time/Full-year

Variable	With VI		Without VI	
	<i>n</i>	%	<i>n</i>	%
Gender				
Male	143,940	49.7	20,281,490	52.2
Female	145,789	50.3	18,569,543	47.8
Race				
White	212,485	73.3	29,675,832	76.4
Black	38,542	13.3	3,489,817	9.0
Other	38,702	13.4	5,685,384	14.6
Hispanic ethnicity	34,064	11.8	3,381,557	8.7
Other disabilities	74,010	25.5	890,823	2.3
SSDI receipt	2,777	1.0	105,900	0.3
Double major	30,735	10.6	4,057,346	10.4
Advanced degree	103,132	35.6	14,202,985	36.6
Class of worker				
Private for-profit	155,524	53.7	23,006,223	59.2
Private non-profit	38,028	13.1	4,679,936	12.0
Government	74,435	25.7	8,428,274	21.7
Self-employment	21,742	7.5	2,736,600	7.0
Age ^a	45.28	0.13	41.89	0.01

Note. Weighted $N = 39,140,762$. Data from the 2015-2019 American Community Survey 5-year Public Use Microdata Sample. Estimates are weighted to be nationally representative. VI = visual impairment; SSDI = Social Security Disability Insurance.

^aValues signify means and standard errors.

Table 3
Results of Multiple Regression Predicting Annual Earnings of College Graduates

Variable	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Intercept	62,559.68	530.40	0	117.95	<.001
Visual impairment (VI)	-13,628.65	1,201.50	-.01	-11.34	<.001
Age	1,526.07	5.67	.22	269.13	<.001
<i>Age x VI</i>	-473.96	50.93	-.01	-9.31	<.001
Female gender	-23,610.68	138.72	-.15	-170.20	<.001
<i>Female gender x VI</i>	5,373.77	1,275.38	.00	4.21	<.001
Race					
Black	-18,779.79	202.93	-.07	-92.54	<.001
<i>Black x VI</i>	2,329.09	1,341.92	.00	1.74	.087
Other	-4,980.06	182.32	-.02	-27.32	<.001
Hispanic ethnicity	-13,644.38	225.27	-.05	-60.57	<.001
Other disabilities	-15,751.18	381.45	-.03	-41.29	<.001
<i>Other disabilities x VI</i>	8,161.51	1,512.76	.00	5.40	<.001
SSDI receipt	-28,765.88	1,181.22	-.02	-24.35	<.001
<i>SSDI receipt x VI</i>	14,057.15	7,604.04	.00	1.85	.068
Double major	175.21	208.82	.00	0.84	.404
Advanced degree	29,661.94	154.35	.18	192.18	<.001
<i>Advanced degree x VI</i>	-8,411.44	1,640.26	-.01	-5.13	<.001
Class of worker					
Private non-profit	-18,507.73	192.21	-.08	-96.29	<.001
<i>Private non-profit x VI</i>	5,619.12	1,843.66	.00	3.05	.003
Government	-24,251.70	141.98	-.13	-170.81	<.001
<i>Government x VI</i>	12,632.73	1,353.06	.01	9.34	<.001
Self-employment	2,657.98	341.82	.01	7.78	<.001
Median state earnings	1.02	0.01	.06	81.78	<.001
Degree major ^a					
Business Management & Administration	386.02	230.05	.00	1.68	.097
General Business	4,343.20	319.34	.01	13.60	<.001
Psychology	-4,710.38	260.26	-.01	-18.10	<.001
Nursing	8,251.78	247.56	.02	33.33	<.001
Accounting	9,508.29	332.44	.02	28.60	<.001
<i>Accounting x VI</i>	-5,957.05	2,600.23	.00	-2.29	.025
General Education	-16,780.31	261.66	-.04	-64.13	<.001
<i>General Education x VI</i>	6,006.70	2,878.13	.00	2.09	.040
Political Science & Government	12,531.13	512.20	.03	24.47	<.001
Biology	22,358.71	399.18	.05	56.01	<.001
Criminal Justice & Fire Protection	-3,760.57	283.51	-.01	-13.26	<.001
Computer Science	15,699.27	393.39	.03	39.91	<.001
<i>Computer Science x VI</i>	-6,531.33	2,932.96	.00	-2.23	.029
Communications	346.50	336.09	.00	1.03	.306
Elementary Education	-16,686.09	248.78	-.03	-67.07	<.001

Marketing & Marketing Research	7,364.40	339.84	.02	21.67	<.001
Finance	20,652.06	454.35	.04	45.45	<.001
English Language & Literature	-4,212.13	389.59	-.01	-10.81	<.001
History	-2,623.16	443.17	.00	-5.92	<.001
Sociology	-4,305.68	407.40	-.01	-10.57	<.001
Social Work	-16,984.91	375.57	-.02	-45.22	<.001
Economics	22,443.00	517.67	.04	43.35	<.001
Electrical Engineering	19,328.74	530.58	.04	36.43	<.001
Liberal Arts	-6,742.00	506.79	-.01	-13.30	<.001
General Engineering	5,939.27	649.57	.01	9.14	<.001
Fine Arts	-16,947.44	542.77	-.02	-31.22	<.001
Mathematics	7,405.86	625.77	.01	11.83	<.001
Commercial Art & Graphic Design	-8,575.46	380.93	-.01	-22.51	<.001

Note. Weighted $N = 39,140,762$. Data from the 2015-2019 American Community Survey 5-year Public Use Microdata Sample. Estimates are weighted to be nationally representative. SSDI = Social Security Disability Insurance.

^aArranged from most to least common based on weighted estimates for graduates with VI who worked full-time/full-year.