Anticipated Discrimination and Gender Differences in Grade Sensitivity[*]

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Abstract

Gender discrimination in the labor market is well documented. I examine how expectations of such discrimination relate to the value students place on academic performance during college. Using an original survey, I find that women expect both stricter hiring standards and higher levels of discrimination than men. A stated-preference choice experiment shows that women are more sensitive to grades than men. Controlling for beliefs about anticipated gender discrimination accounts for a substantial share of the observed gender gap in grade sensitivity. These findings show that expectations of labor market discrimination affect how women respond to their academic performance during college.

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1 Introduction

Gender discrimination in the labor market has been extensively documented, particularly in male-dominated fields such as STEM and business. Women are often held to higher standards and face differential treatment in hiring and promotion (Foschi et al., 1994; Goldin and Rouse, 2000; Quintero, 2008; Williams et al., 2014; Funk and Parker, 2018; Alam and Tapia, 2020). Recent research shows that students are aware of these barriers and that women often anticipate discrimination even before they enter the labor market (Steele et al., 2002; Lepage et al., 2025). In this paper, I study the relationship between anticipated discrimination and students' academic decision-making during college and show that beliefs about labor market discrimination help explain gender differences in sensitivity to grades—that is, the extent to which students adjust their academic decisions in response to their performance.

Grades are a central input into students' academic decisions because they provide salient feedback that shapes persistence, major switching behavior, and ultimately labor market outcomes.[1] Prior research documents that women in STEM and other male-dominated fields are more sensitive to grades than men, in the sense that their decision to remain in, or switch out of, these majors is more strongly affected by their performance in introductory courses (Rask and Tiefenthaler, 2008; Ost, 2010; Goldin, 2015; Kugler et al., 2021; Kaganovich et al., 2021). Common explanations emphasize differences in risk preferences (Paola and Gioia, 2012), competitiveness (Buser et al., 2014), or self-confidence (Ellis et al., 2016; Moakler and Kim, 2014), but anticipated gender discrimination has received little attention, despite evidence that women expect greater barriers in the labor market. This mechanism has policy implications that differ from explanations based on inherent gender differences: if students' beliefs accurately reflect labor market conditions, reducing gender disparities in hiring is essential; if their beliefs do not match actual conditions, targeted information interventions may help students make academic decisions with a clearer understanding of their prospects.

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[1]College GPA is commonly used in the hiring process for entry-level positions (McKinney and Miles, 2009; Hansen et al., 2023a), and higher GPA is associated with higher chances of obtaining employment (McKinney et al., 2003; Quadlin, 2018; Kessler et al., 2019).

Existing data provide no direct measures of this mechanism, so I designed an original survey that elicits students' beliefs about labor market standards and anticipated discrimination, and paired it with a stated-preference choice experiment that recovers how students trade off GPA against other major attributes. This design allows me to assess the extent to which concerns about discrimination help account for observed gender differences in grade sensitivity. By documenting how labor market expectations relate to students' responsiveness to grades, I highlight a mechanism that connects anticipated discrimination to academic behavior well before labor market entry.

In the survey, I collect data on each respondent's perceived gender discrimination in different fields of study. Participants report their predicted likelihood of experiencing difficulties finding a job because of their gender, as well as the likelihood of facing differential treatment by their supervisor or peers. The results show that women believe they are more likely to experience gender discrimination in the labor market than men.

The survey also elicits students' perceptions of hiring standards. Specifically, respondents report their beliefs about the minimum GPA required to secure a full-time job. The results show that women expect higher GPA requirements than men. These expectations are especially pronounced in STEM, where both men and women anticipate stricter thresholds than in other fields, but women's expected standards are significantly higher.

Perceived labor market standards and anticipated gender discrimination are positively related, particularly among women. Female students who expect to face more discrimination also expect higher GPA thresholds to obtain a job, suggesting that expectations of bias are reflected in beliefs about needing stronger academic records to be competitive. Consistent with this interpretation, female respondents expressed agreement with the statement that women need higher GPAs than men to be competitive, with this belief especially strong in STEM and business-related fields. These findings suggest that anticipated discrimination is closely tied to perceptions of GPA requirements, highlighting grades as a central margin through which students evaluate their competitiveness.

I employ a stated-preferences approach that elicits participants' choice probabilities for hypothetical majors characterized by attributes such as average GPA at graduation, average weekly study time, and average post-graduation earnings.[2] From these responses, I calculate a willingness-to-pay (WTP) measure that captures how much income students are willing to forgo for higher grades. Because GPA matters for a range of academic and early-career outcomes, students' WTP for higher grades provides a stated-preference measure of their grade sensitivity. I find that women are willing to pay about $3,000 more than men for an additional GPA point, with the difference particularly pronounced among students in STEM fields.

I then show that controlling for beliefs about labor market standards and anticipated gender discrimination reduce the gap by about half, to the point that it is no longer statistically significant. In other words, when men and women expect similar hiring standards and levels of discrimination, they value grades similarly. Taken together, these findings align with a mechanism in which women who anticipate discrimination believe they must achieve higher GPAs to compete effectively in the labor market, helping explain their greater responsiveness to grades.

This paper contributes to the literature on grade sensitivity and to the literature on gender discrimination in the labor market, with its main contribution being to bridge these two strands of research. Most of the work on grade sensitivity remains agnostic about the mechanisms driving gender differences in reactions to grades.[3] I show that beliefs about anticipated gender discrimination are an important channel through which labor market expectations shape students' sensitivity to grades. Although it is not the only factor driving these patterns, this mechanism differs from explanations based on inherent gender differences, such as risk aversion or self-confidence, and highlights how students' perceptions of future

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[2]This methodology has been used in a wide variety of contexts, for example, to study preferences for reliable electricity services (Blass et al., 2010), political candidates (Delavande and Manski, 2015), workplace attributes including valuation of harassment risks at work (Wiswall and Zafar, 2018; Folke and Rickne, 2022), and neighborhood characteristics (Koşar et al., 2022) among others.

[3]One exception is Kaganovich et al. (2021), which finds that tastes for different majors are important to understand the gender differences in grade sensitivity.

labor market conditions can influence their academic decisions well before graduation.

While gender discrimination has been extensively studied, the literature on anticipated gender discrimination is more limited but growing, with studies documenting its effects in a variety of non-educational contexts (Alston, 2019; Aksoy et al., 2023; Ruebeck, 2025; Samahita and Zanella, 2025).[4] A small set of recent papers provide evidence that anticipated discrimination shapes women's academic decisions. Lepage et al. (2025) show that anticipated discrimination contributes to gender gaps in major choice and academic achievement, while Exley et al. (2025) document a gender concealment gap in grade-optional policies and argue that expectations of discrimination help explain women's reluctance to hide poor grades. In contrast, I focus on grade sensitivity, a key determinant of major persistence, and examine how anticipated discrimination shapes the value students place on grades.

The estimated gender gaps in willingness-to-pay for GPA are consistent with studies showing that women respond more strongly to grades, particularly in male-dominated majors (Rask and Tiefenthaler, 2008; Ost, 2010; Owen, 2010; Goldin, 2015; Kugler et al., 2021; Kaganovich et al., 2021; McEwan et al., 2021; Ahn et al., 2022; Ugalde A., 2025).[5] Most existing studies capture grade sensitivity by examining outcomes such as switching majors, graduation, or course-taking, often using regression discontinuity or difference-in-differences designs. In contrast, I measure grade sensitivity through students' willingness-to-pay for GPA, which captures how much they value academic performance relative to other attributes. Identification leverages within-individual variation in stated preferences, which allows me to estimate the complete distribution of preferences for GPA. This approach provides a direct measure of grade sensitivity that complements prior work focused on observed behavior and allows me to document a robust gender gap in responsiveness to grades.

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[4]See Shen (2021) for a literature review on gender discrimination.

[5]Other work, however, finds little evidence of sensitivity to grades in economics or STEM, or finds sensitivity without gender differences (Main and Ost, 2014; Bestenbostel, 2021; Astorne-Figari and Speer, 2019; Owen, 2021; Tan, 2023). These differences likely reflect variation in settings and in the margin of analysis, as some studies estimate the causal effect of marginal changes in letter grades, while my study focuses on preferences for cumulative GPA.

2   Survey Data

The data come from an original online survey of undergraduate students at Arizona State Univeristy (ASU), one of the largest public universities in the US. Students were invited to participate via email and through advertisements on the student portal, which is accessible only with an ASU ID and password. They were informed that the study was about how they chose their major and the relationship between study time and grades, with the incentive of entering a lottery for one of 350 $20 eGift Cards. Data collection began on April 5th, 2021, and lasted for about two weeks.[6]

The survey, programmed in Qualtrics, collected data on students' demographics, family background, major, academic performance, and study time. The survey also included a series of hypothetical major-choice scenarios designed to elicit students' preferences over academic attributes; the design and implementation of this module are described in Section 4.1. The survey instrument can be found in Appendix B.

A total of 2,036 respondents completed the survey. Responses from the 3% of participants who identified as non-binary or chose not to disclose their gender were excluded from the analysis. Additionally, responses in the 1st and 99th percentiles of survey duration were excluded, resulting in a final sample size of 1,936. The median completion time was 23 minutes (43 minutes on average).

Women comprise 64% of the sample, which is higher than their representation in ASU's student population (51% female). However, there is no differential selection on observables across genders (see Table A1), suggesting that the sample reasonably represents ASU stu-

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[6]The survey was administered during the COVID-19 pandemic, at a time when ASU was operating under a stable hybrid instructional model that combined remote and limited in-person instruction. By Spring 2021, standard letter grading practices were in place, and no COVID-specific grading policies—such as universal pass/fail options—were in effect. While students may have experienced earlier pandemic-related disruptions, such disruptions are relevant for the interpretation of the results only if they differentially affected the beliefs of men and women. Students in the sample faced a common instructional and grading environment, making such differential effects unlikely. Moreover, the survey elicits beliefs about long-run labor market standards, which are unlikely to respond sharply to short-term instructional adjustments. Finally, if pandemic-related disruptions increased grading leniency or noise, GPA would become a less informative signal, which would predict lower—not higher—sensitivity to grades.

dents in terms of gender differences in background characteristics.

For the survey, majors were grouped into three broad categories: STEM, Business/Economics (BEC), and Humanities/Social Sciences (SSH).[7] I refer to these categories as majors. The last three rows in Table A1 show the proportions of women and men in each major. The sample includes fewer men in BEC and fewer students in SSH compared to ASU's student population. However, the gender gap in STEM is consistent between the survey sample and the ASU student body (20% gap).

3 Anticipated Gender Discrimination

In this section, I document gender differences in students' beliefs about gender discrimination and hiring standards in the labor market using the survey data. To measure beliefs about anticipated gender discrimination in the labor market, participants rated on a 5-point Likert scale how likely it was that: (1) finding a job would be harder because of their gender, (2) their supervisor/boss would treat them differently because of their gender, and (3) their peers/coworkers would treat them differently because of their gender.[8] These questions, asked separately for each major, were combined using Principal Components Analysis (PCA) to create a major-specific index of anticipated gender discrimination.[9]

Figure 1 shows the average anticipated gender discrimination index by major and gender. By construction, each index has a mean of zero (and standard deviation of one), therefore negative (positive) numbers imply anticipated gender discrimination that is lower (higher) than average. Men anticipate facing less discrimination due to their gender in all fields than the average participant. In contrast, women anticipate more discrimination across all fields, especially in STEM and BEC compared to SSH (p-value < 0.01 for both comparisons). This result is consistent with evidence of greater challenges for women in male-dominated fields

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[7]See Appendix C for the list of majors in each category.

[8]Given the leading nature of these questions they were asked at the end of the survey.

[9]All results remain qualitatively consistent when major-specific indexes are constructed using a PCA algorithm that accounts for variable discreteness, or when considering only the difficulty of finding a job due to gender.

Figure 1: Anticipated Gender Discrimination Index by Gender
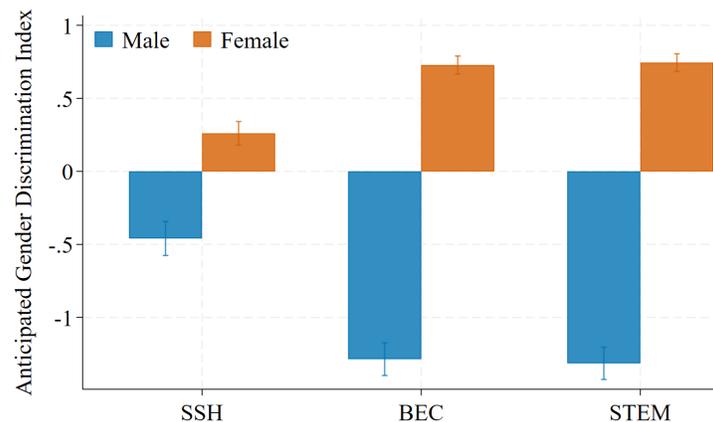
Notes: Average anticipated gender discrimination index for each major by gender. The index calculated using PCA and the responses to how likely (on a 5-point Likert scale) it would be that: (1) it is harder to find a job because of their gender, (2) their supervisor/boss would treat them differently because of their gender, and (3) their peers/coworkers would treat them differently because of their gender. Spikes represent 95% CI.

(Foschi et al., 1994; Goldin and Rouse, 2000; Funk and Parker, 2018; Alam and Tapia, 2020).

College GPA is often used in hiring for entry-level positions, as it correlates with cognitive ability, job performance, and other traits valued by recruiters (McKinney and Miles, 2009, Hansen et al., 2023a). A higher GPA also increases job prospects (McKinney et al., 2003; Quadlin, 2018; Kessler et al., 2019). Discrimination may lead women to believe they need stronger evidence of competence than men to be hired, especially in male-dominated fields. To capture these beliefs, participants were asked to report the minimum GPA they believe they would need to secure a full-time job in each field after graduation.[10]

Figure 2 shows the average GPA threshold for each major by gender. Participants believe they would need a higher GPA to secure a job in STEM than in BEC or SSH. Women, on average, think they need a GPA 0.23 points higher than in BEC and 0.18 points higher than in SSH (p-value < 0.01 for both comparisons). Men believe they need 0.12 and 0.10 extra GPA points for STEM over BEC and SSH, respectively (p-value < 0.01 for both comparisons). Overall, women think they need a higher GPA than men in any field. The

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[10]The exact question wording was: *"Consider a situation where you are enrolled in each of the following major categories. What do you think is the minimum cumulative GPA that you would need to get a full-time job after graduation in the same field as the degree?"* The question was written in gender-neutral terms to avoid making gender salient when answering.

Figure 2: Average Beliefs about Min. GPA Necessary for Full-Time Job in Given Field
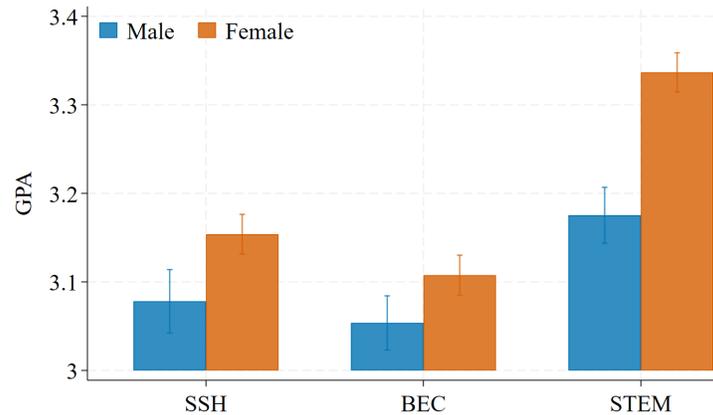
Notes: Average belief about the minimum cumulative GPA at graduation required to secure a full-time job in each field by gender. Spikes represent 95% CI.

gender gaps in perceived GPA requirements for SSH, BEC, and STEM are 0.075, 0.054, and 0.161, respectively (p-value < 0.01 for all).[11] In short, women believe they must provide a stronger signal of competence, particularly in STEM fields, to secure a job.

Figure 3: Anticipated Discrimination and Thresholds Relationship
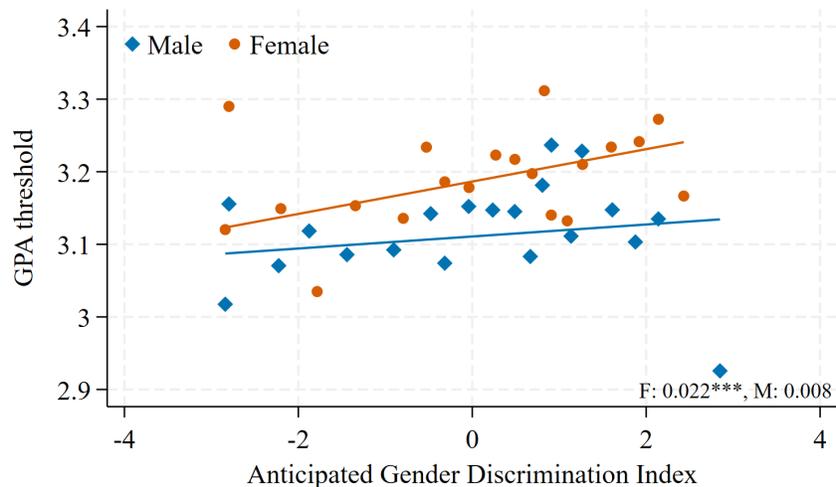
Notes: Markers are from a binned scatter plot between GPA thresholds to get a full-time job and the anticipated gender discrimination index. Lines are fitted values from a regression of the GPA threshold on the anticipated discrimination index separately by gender and standard errors are clustered at individual level. Coefficients at the bottom left corner are the slopes of each line. *Significant at 10%, **5%, ***1%.

The binned scatter plot in Figure 3 illustrates the relationship between beliefs about

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[11]The gender gaps for BEC and SSH are not statistically different from each other (p-value=0.45), but they are statistically different from the gender gap in STEM (p-value<0.01).

anticipated gender discrimination and the GPA required to secure a job. There is a significant positive relationship (p-value < 0.01) for women between anticipated discrimination and the minimum GPA they believe is needed for a full-time job. This relationship is weaker for men, which is consistent with men reporting lower expected discrimination.[12]

Women believe they need to demonstrate greater competence in fields where they expect to face more discrimination. Female participants rated (on a 5-point scale) how much they agree that women need a higher GPA than men to be competitive in various fields. Figure 4 summarizes the responses. On average, represented by the dashed lines, the agreement is higher for STEM and BEC jobs compared to SSH jobs (p-value < 0.01 for both comparisons). Nearly 77% of women somewhat or strongly agree that a higher GPA is needed for BEC jobs, and 82% for STEM jobs, compared with 42% for SSH jobs. These findings reinforce that women expect greater challenges in the STEM and BEC labor markets.

Figure 4: Female Participants' Agreement That Women Need a Higher GPA Than Similar Men to Be Competitive, by Major
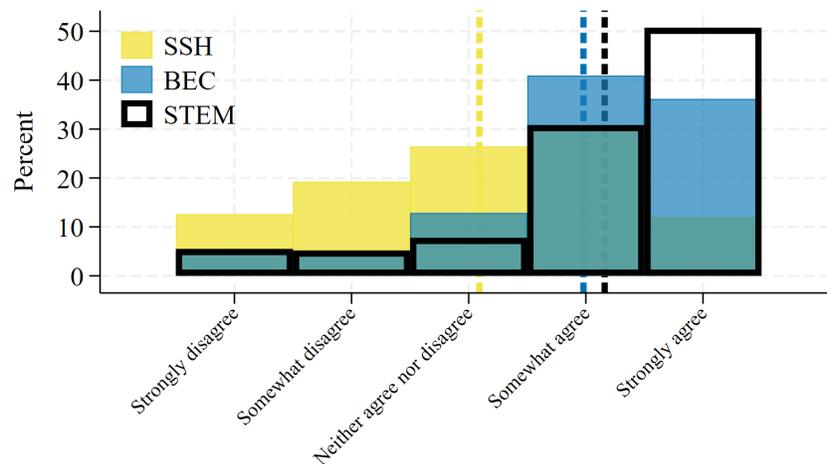
Notes: For each major, histogram of female participants responses to "How much you agree with: A woman competing for a job in this field would need a higher GPA than an otherwise similar man to be competitive." Dashed lines represent the average level of agreement by major.

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[12]However, a significant positive relationship exists for men when excluding eight outlier observations with high anticipated discrimination index but low labor market standards.

4   Grade Sensitivity and Anticipated Gender Discrimination

Having documented gender differences in beliefs about discrimination and hiring standards, I now examine how these beliefs relate to students' responsiveness to grades. To do so, I use a stated-preference approach that elicits willingness-to-pay (WTP) for GPA. This measure provides a direct way to quantify grade sensitivity.

4.1   Stated-Preference Framework

To quantify gender differences in grade sensitivity, I use an online survey presenting students with hypothetical major choice scenarios. This survey collects data to estimate students' preferences for various major attributes (Blass et al., 2010; Delavande and Manski, 2015; Wiswall and Zafar, 2018; Folke and Rickne, 2022; Koşar et al., 2022; Fuster and Zafar, 2023). Participants evaluate 10 scenarios, each featuring three potential majors: SSH, BEC, and STEM. Each scenario describes the majors based on three attributes: average GPA at graduation, average weekly study time, and average earnings after graduation. Scenarios are presented sequentially. Table 1 provides an example of a scenario.

Table 1: Scenario Example

	Av. GPA	Av. Study Hours per week	Av. Earnings after Grad. (full-time job)
SSH	3.47	8.0	$24,000
BEC	2.23	7.0	$49,000
STEM	2.00	22.0	$46,000

In each scenario, I exogenously vary the attributes' magnitudes to identify students' preferences. To ensure realism, these magnitudes are based on perturbations of each participant's

own beliefs about average GPA, study time, and full-time earnings for each major that were asked earlier in the survey. The belief questions referred to the average student in each field, not to a student of a specific gender or to the respondent personally.[13] Appendix Table A2 summarizes these beliefs by major and gender, showing meaningful variation across both dimensions. Consequently, each scenario is individual-specific, reflecting small deviations from personal beliefs.[14]

In each scenario, students report the probability of choosing each major based on the provided characteristics.[15] Participants provide probabilities because the scenarios are incomplete or not fully specified, as majors can be characterized by more attributes beyond the three included in the survey. This approach allowed participants to express uncertainty about their choices due to the scenarios' incomplete nature. Figure A1 presents the histogram of elicited probabilities for each major across the ten scenarios. As is common for probabilistic belief data (Manski, 2004), responses often round to multiples of 5 and 10, indicating minor rounding bias.[16] The histograms show that responses spanned the entire range of possible values, not just 0, 50, or 100, indicating no issue with gross rounding (Manski, 2004). Moreover, 86% of participants provided interior probabilities (neither 0 nor 100) in all scenarios, highlighting the significance of allowing participants to express uncertainty.[17]

An important implicit assumption when eliciting choice probabilities is that stated choices reflect participants' real-life decisions. Growing evidence suggests that stated choices yield similar preference estimates to revealed preference approaches and that participants provide meaningful responses when scenarios are realistic and relevant to them (Fuster et al., 2021;

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[13]The exact question wording appears in the notes of Appendix Table A2.

[14]Perturbations range from ±10% to ±100% and vary across scenarios. Table A3 details the attribute ranges by major in the scenarios. At ASU, students need a minimum GPA of 2.0 to graduate, so average GPA ranges from 2.0 to 4.0. Weekly study time ranges from 3 to 40 hours, and earnings range from $15,000 to $200,000.

[15]The exact wording of the question was: *Imagine a situation in which you have not chosen a major yet and each major category is characterized as in the table below... What is the percent chance (or chances out of 100) that you would choose to graduate from each category given these characteristics?* For more details, see the survey instrument in Appendix B.

[16]Section 4.1.1 discusses how this rounding bias is addressed.

[17]Only 3% indicated a 100% probability for one major in all scenarios.

Fuster and Zafar, 2023). In this context, major choice decisions are certainly relevant for college students. Additionally, the scenarios were tailored to each participant's beliefs to ensure realism.

4.1.1 Utility Model and Estimation

Similar to Wiswall and Zafar (2018), I use a simple model of expected utility of major choices to recover measures of WTP for the various major attributes. In particular, the model intends to recover how the utility of choosing a given major varies with GPA.

Let U_{ijs} denote the utility that student i derives from major j in scenario s. This utility is defined as

$$U_{ijs} = X'_{ijs}\beta_i + \kappa_{ij} + \epsilon_{ijs} \tag{1}$$

where X_{ijs} is a vector of major attributes: average GPA, average weekly study time, and the natural logarithm of average earnings. The vector β_i represents student i's preferences for these attributes, which are not specific to any major. The term κ_{ij} captures student i's specific taste for major j.[18] The term ϵ_{ijs} accounts for uncertainty about additional attributes not specified in the survey scenarios.[19] Following Blass et al. (2010) and Wiswall and Zafar (2018), ϵ_{ijs} represents resolvable uncertainty, which is expected to be clarified in an actual choice situation. The key identifying assumption is that, conditional on the major, $\{\epsilon_{ijs}\}_{j=1}^{J}$ captures idiosyncratic variation that is orthogonal to the major attributes $\{X_{ijs}\}_{j=1}^{J}$.

Then, student i's reported probability of choosing major j in scenario s is

$$p_{ijs} = \int \mathbb{1}\left\{U_{ijs} > U_{ij's} \quad \forall j' \neq j\right\} dH_i(\epsilon_{is}) \tag{2}$$

where $H_i(\epsilon_{is})$ represents i's belief about the distribution of $\{\epsilon_{i1s}, ..., \epsilon_{iJs}\}$. I assume these

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[18]For estimation purposes the constant for SSH major is normalized to zero, making other majors' tastes relative to SSH.

[19]As discussed in the previous section, the scenarios are incomplete.

beliefs are i.i.d Type I extreme value distributions for all individuals. Thus, the probability of student i choosing major j in scenario s takes the following form:

$$p_{ijs} = \frac{exp(X'_{ijs}\beta_i + \kappa_{ij})}{\sum_{j'=1}^{J} exp(X'_{ij's}\beta_i + \kappa_{ij'})} \tag{3}$$

Applying the log-odds transformation to equation (3) results in the linear model in (4).

$$ln\left(\frac{p_{ijs}}{p_{ij's}}\right) = (X_{ijs} - X_{ij's})'\beta_i + (\kappa_{ij} - \kappa_{ij'}) \tag{4}$$

In line with the literature (Blass et al., 2010; Wiswall and Zafar, 2018), I introduce measurement error to the model in (4) to address the minor rounding bias noted earlier. I assume that measurement error follows a linear-in-logs form and has a median of zero, conditional on X. Therefore

$$M\left[ln\left(\frac{\tilde{p}_{ijs}}{\tilde{p}_{ij's}}\right)|X\right] = (X_{ijs} - X_{ij's})'\beta_i + (\kappa_{ij} - \kappa_{ij'}) \tag{5}$$

where $\tilde{p}_{ijs}$ represents the reported choice probability, which measures the true probability p_{ijs} with measurement error. β_i can be consistently estimated using the Least Absolute Deviations (LAD) estimator. To ensure the natural logarithm is defined, I adjust extreme probabilities like 0 or 100 by replacing 0 with 0.001 and 100 with 99.9. The LAD estimator is robust to these adjustments. Variation in major attributes and participant choice probabilities across the 30 observations per respondent allows me to identify β_i for each student separately. This approach provides a non-parametric characterization of the preference distribution.[20] I report block bootstrap standard errors based on 1000 replications.[21]

Table 2 reports the average β_i estimates from equation (5), with bootstrapped standard

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[20]Since each participant only faces 10 observations per major, there are too few data points to reliably estimate major-specific preferences at the individual level. As a result, β_i captures overall preferences for the attributes rather than major-specific preferences for those attributes.

[21]Each replication draws participants with replacement and reestimates the model using all of their scenario responses, which preserves the within-participant correlation structure. See Wiswall and Zafar (2018) for more details.

Table 2: Estimates of Preferences for Major Attributes

	Overall	Female	Male
	(1)	(2)	(3)
GPA at Grad.	0.650***	0.689***	0.574***
	(0.064)	(0.079)	(0.118)
Study time (h/week)	-0.070***	-0.060***	-0.090***
	(0.007)	(0.009)	(0.014)
Log earnings	4.569***	4.058***	5.558***
	(0.154)	(0.182)	(0.291)
Taste for BEC	-0.430***	-0.557***	-0.184
	(0.085)	(0.105)	(0.143)
Taste for STEM	-0.078	-0.244**	0.244
	(0.096)	(0.113)	(0.175)
N	1,192	786	406

Notes: Table reports the average of the coefficientes across the relevant sample. Tastes for BEC and STEM are relative to SSH. Asterisks denote estimates that are statistically different from zero based on bootstrapped standard errors. *Significant at 10%, **5%, ***1%

errors in parentheses. Seniors are not considered in this part of the analysis because their proximity to graduation may influence their preferences in the hypothetical scenarios. However, including seniors yields qualitatively similar results.[22] The first column displays the average estimate for each attribute across all individual-level estimates. Columns 2 and 3 report the average estimates by gender.

The average estimates show the expected signs: GPA at graduation and earnings are positively valued, while study time is negatively valued. This indicates that, on average, students prefer majors with higher earnings and GPAs but lower study time. The estimates by gender reveal similar qualitative patterns to the overall averages. Additionally, all attributes are statistically significant. Regarding tastes, students generally prefer SSH over BEC and STEM majors (with estimates relative to SSH), though men's preferences for BEC and STEM are not statistically different from zero.

4.2   Measuring Grade Sensitivity through WTP

To aid economic interpretation, I translate the preference estimates into willingness-to-pay (WTP) measures, which provide a clear way to quantify students' responsiveness to grades. These measures express the utility differences from changes in attributes in monetary terms, capturing the additional income students would require to consider two attribute levels equally desirable.

To compute the WTP, consider a change in attribute X_k from x_k to $x_k + \Delta$ where $\Delta > 0$. With the linear utility function, the indifference condition in terms of earnings Y is:

$$x_k \beta_{ik} + \beta_{i1} ln\left(Y\right) = \beta_{ik}\left(x_k + \Delta\right) + \beta_{i1} ln\left(Y + WTP_{ik}\left(\Delta\right)\right) \tag{6}$$

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[22]Additionally, I exclude outliers with WTP for study time or GPA (as defined in the next subsection) greater than $100,000 or less than -$100,000 (5.5% of the sample).

Solving (6) for WTP gives the following expression:

$$WTP_{ik}(\Delta) = \left[exp\left(\frac{-\beta_{ik}}{\beta_{i1}}\Delta \right) - 1 \right] \times Y, \tag{7}$$

which represents individual i's willingness to pay for a Δ increase in attribute k. This WTP measure depends on the ratio of preferences for attribute k (β_{ik}) to preferences for earnings (β_{i1}) and is affected by the earnings level Y. For estimation purposes, Y is fixed at the average earnings across participants and scenarios (\$53,545), so that any observed gender differences in WTP reflect differences in preferences rather than earnings levels.

Table 3 displays the average and median WTP measures for one additional unit of each attribute: one whole GPA point at graduation (e.g., from 2.3 to 3.3) and one extra hour of study time per week. All means and medians reported in Table 3 are statistically significant (p-value < 0.01 for all). Columns 1-3 show WTP measures in dollars, columns 4-6 present WTP as a percentage of average earnings, and column 7 reports the p-value from a difference in means or medians test by gender for the dollar-based WTP estimates.

Table 3: WTP Estimates

| | Dollars | | | % of Av. Earnigs | | | |
	Overall	Female	Male	Overall	Female	Male	P-value[a]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
GPA at Grad.	8,344	9,128	6,828	15.58	17.05	12.75	0.098
	[6,636]	[7,823]	[4,903]	[12.39]	[14.61]	[9.16]	0.018
	(652)	(811)	(1126)	(1.22)	(1.52)	(2.11)	
Study time	-1,486	-1,434	-1,585	-2.77	-2.68	-2.96	0.724
	[-641]	[-611]	[-717]	[-1.20]	[-1.14]	[-1.34]	0.232
	(196)	(241)	(355)	(0.37)	(0.45)	(0.67)	
N	1,192	786	406				

Notes: Table reports WTP mean, median in squared brackets, and bootstrapped standard errors in parentheses in dollars and as percentage of average earnings. All means and medians are statistically different from zero at 1%.
[a] Column (7) reports the p-value from a test of equality between the female and male estimates reported in columns (2) and (3).

On average, students are willing to pay 16% of their annual earnings for a one-point increase in the average GPA at graduation for a major. In contrast, students require an additional 3% in annual earnings to study one more hour per week. Women are willing to pay 17% of their annual earnings for a one-point increase in GPA, while men are willing to pay only 13% (p-value for the gender difference <0.1). There is no significant gender difference in the average WTP for weekly study time.

4.2.1 Interpreting the WTP for GPA

The willingness-to-pay (WTP) estimates should be understood as a stated-preference summary of how students value GPA in relation to earnings in the choice scenarios, not as literal monetary payments. As shown in Figure 5, students report that GPA matters for a wide range of reasons. The most common motivation for achieving high grades is personal satisfaction, followed by building a successful career trajectory, finding a job after graduation, maintaining eligibility for scholarships, confidence in major choice, and access to graduate school. Students also mention signaling competence to professors and peers, as well as meeting parental expectations. These responses indicate that GPA is valued along multiple dimensions—intrinsic, academic, and professional—rather than solely through its correlation with income. The WTP measure is intended to capture this broader set of motivations by translating responsiveness to GPA into monetary terms.

By presenting GPA and earnings as distinct average characteristics of majors, the design allows GPA to be interpreted as an attribute that carries value beyond its effect on income. In this context, average GPA reflects grading practices and typical performance in the major, while average earnings summarize expected labor market returns for graduates with a bachelor's degree in the field. Importantly, the earnings attribute refers to income immediately after completing a bachelor's degree rather than lifetime earnings, so the willingness-to-pay estimates represent trade-offs over annual income within this framework. The survey was designed to hold graduate school constant, though students may still implicitly consider it

Figure 5: Motivations for Achieving High Grades
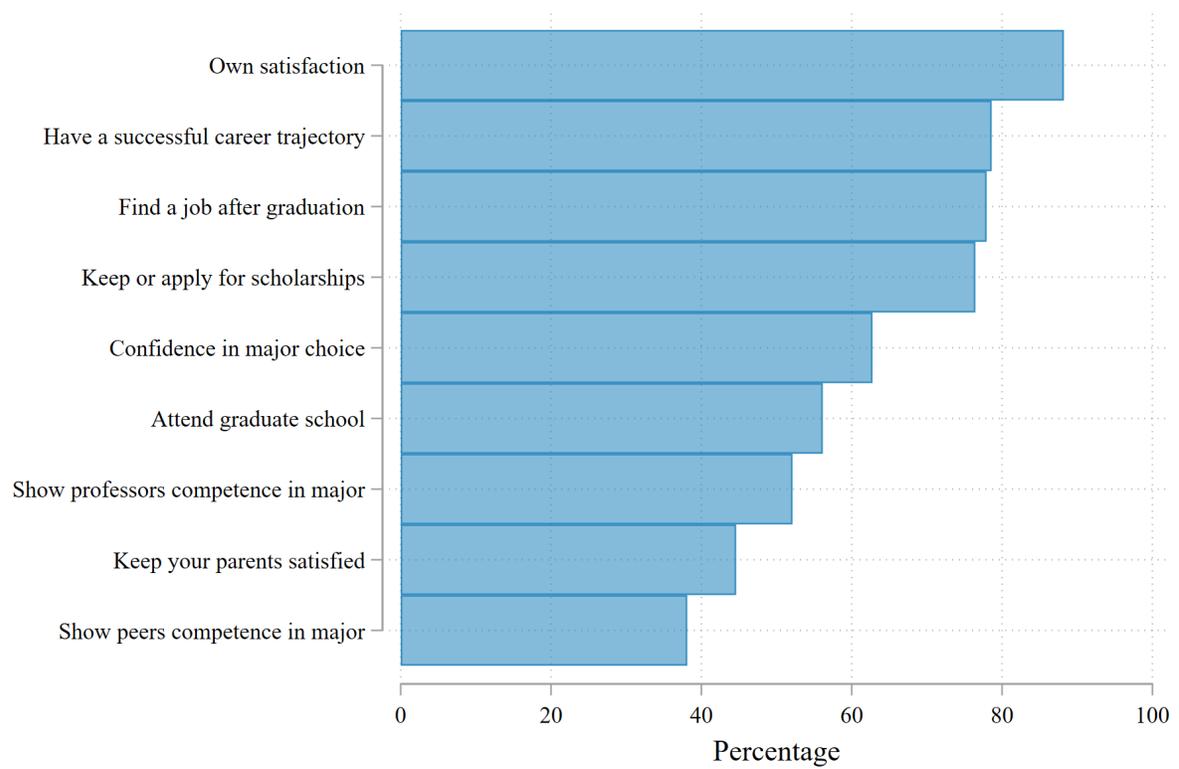
Notes: Percentage of participants who rated each reason as "Very Important" or "Extremely Important" in motivating them to achieve good grades.

when evaluating the broader value of GPA.

In this context, WTP for GPA is best interpreted as a measure of students' grade sensitivity—that is, the weight they place on grades when evaluating academic options. The key insight lies in differences across groups, not in the absolute dollar magnitudes. In the next section, I examine these differences by gender and show how beliefs about anticipated discrimination help account for them.

4.3 Gender Gaps and the Role of Anticipated Gender Discrimination

Having established that WTP for GPA provides a measure of students' grade sensitivity, I now examine how this measure differs by gender. Table 4 shows the gender gap in WTP for GPA at graduation, conditional on background characteristics. This is estimated from the following specification:

$$WTP_{GPAi} = \alpha_0 + \alpha_1 Female_i + \mathbf{C}_i + \xi_i \tag{8}$$

where the outcome variable is participant i's WTP measure for GPA at graduation. $Female_i$ is an indicator equal to one when the participant is female. $\mathbf{C}_i$ includes controls for family income, parents' education, minority status, SAT/ACT scores, school year, and majors. The coefficient of interest, α_1, measures the difference between women's and men's sensitivity to grades.

Column (1) reports the overall conditional gender gap at \$3,191. This indicates that women are willing to forgo \$3,191 in average annual earnings more than men for an additional GPA point at graduation in a given major. I interpret this as the gender gap in grade sensitivity, since women are willing to "pay" more for the GPA increase.

Columns (2)–(4) of Table 4 show that the gender gap is concentrated among STEM students, where women are willing to forgo over \$5,000 more than men for an additional

Table 4: Gender Gaps in WTP for GPA

	Overall	SSH	BEC	STEM
	(1)	(2)	(3)	(4)
Female	3,191**	1,749	-345	5,326***
	(1,404)	(2,864)	(3,771)	(1,878)
Mean	8,344	6,334	9,971	9,249
R2	0.02	0.02	0.04	0.03
N	1,192	424	218	550

Notes: Outcome variable is WTP for an extra point in av. GPA at graduation. All columns control for household income, parents education, SAT/ACT, school year, minority. Additionally, column (1) controls for major. Bootstrapped standard errors reported in parentheses. Columns (2)-(4) split sample by reported major of participants. *Significant at 10%, **5%, ***1%.

GPA point. This pattern aligns with prior research documenting stronger grade sensitivity gaps in STEM fields. In contrast, the gap is small and not statistically significant in SSH and less precisely estimated in BEC due to the smaller sample size. Appendix Table A4 confirms that the positive gender gap holds across STEM subfields, though it is estimated more precisely in non-life/medical STEM fields.

Table 5 examines the extent to which anticipated discrimination and GPA threshold beliefs help account for the observed gender gap in WTP for GPA. Column (1) replicates the gender gap in WTP for GPA at graduation reported in Table 4 as $3,191. Column (2) controls for beliefs about the required GPA to get a full-time job in each field, reducing the gap by 15% to $2,699. In column (3), controlling for anticipated discrimination reduces the gender gap in WTP by 34% to $2,093, making it statistically insignificant. Finally, in column (4), including both sets of beliefs reduces the gender gap by about 49%, and the coefficient is no longer statistically significant.

4.3.1 Interpretation and Discussion

The reduction in the estimated gender gap in WTP for GPA when beliefs about anticipated discrimination and minimum GPA requirements are included suggests that expectations about the labor market influence how women and men value grades. These results are

Table 5: Importance of Anticipated Discrimination and GPA Thresholds for the Gender Gaps in WTP for GPA

	(1)	(2)	(3)	(4)
Female	3,191**	2,699*	2,093	1,643
	(1,404)	(1,396)	(2,051)	(2,002)
Belief GPA Threshold SSH		-131		-129
		(2,116)		(2,189)
Belief GPA Threshold BEC		1,926		1,983
		(2,387)		(2,360)
Belief GPA Threshold STEM		3,451*		3,386*
		(1,977)		(1,971)
Anticipated Discrimination SSH			-222	-237
			(522)	(535)
Anticipated Discrimination BEC			542	511
			(895)	(898)
Anticipated Discrimination STEM			73	93
			(880)	(882)
Mean	8,344	8,344	8,344	8,344
R2	0.017	0.023	0.018	0.024
N	1,192	1,192	1,192	1,192

Notes: Outcome variable is WTP for an extra point in av. GPA at graduation. All columns control for household income, parents education, SAT/ACT, school year, minority, and major. Bootstrapped standard errors reported in parentheses. *Significant at 10%, **5%, ***1%.

also supported by a Oaxaca–Blinder decomposition, which asks how the WTP gap would change if women had the same beliefs as men, keeping everything else the same. I find that gender differences in anticipated discrimination indices account for 16% of the gap, while differences in beliefs about minimum GPA requirements account for 41%.

The interpretation of these results draws on the idea that WTP for GPA reflects grade sensitivity. As discussed in Section 4.2.1, WTP summarizes how students value grades relative to other major attributes, and the monetary amounts simply provide a stated-preference scale to quantify these relative valuations. This measure captures that grades matter for multiple reasons—academic, professional, and personal—not solely because of their correlation with income. Within this framework, differences in WTP reflect differences in how much weight women and men place on GPA. Taken together, the documented patterns align with a mechanism in which women who anticipate discrimination believe they need a higher GPA to compete effectively in the labor market, which helps explain their greater responsiveness to grades.

However, these results should not be interpreted as evidence that anticipated discrimination is the sole driver of gender differences in grade sensitivity. Other explanations emphasized in the literature—such as inherent gender differences in confidence, competitiveness, or risk aversion—may also influence how students interpret academic performance signals, and the evidence here does not rule out their potential contribution. Rather, the mechanism highlighted here connects beliefs about the labor market to how students interpret academic performance, which in turn influences the investment decisions they make during college. This perspective also points to distinct policy implications: if students' beliefs accurately reflect labor market conditions, addressing systematic gender disparities in hiring becomes central, while if beliefs do not match actual conditions, information interventions may help students make academic decisions with a clearer understanding of their prospects.

5   Conclusion

This paper examines how anticipated gender discrimination in the labor market relates to gender differences in students' grade sensitivity. Using original survey data that elicit beliefs about labor market standards and discrimination alongside stated-preference measures of responsiveness to GPA, I show that women place substantially more weight on grades than men when assessing how much grades matter relative to other major attributes.

A central finding is that beliefs about anticipated discrimination and minimum GPA requirements account for a large share of this gender gap. When comparing men and women who report similar expectations about hiring standards and discrimination, the gender gap in willingness-to-pay for GPA declines by nearly half and is no longer statistically significant. A complementary Oaxaca–Blinder decomposition reinforces this interpretation, indicating that gender differences in these beliefs explain a meaningful portion of the observed gap.

These results contribute to the literature on grade sensitivity and the literature on gender discrimination by documenting a mechanism that links labor market expectations to how students interpret academic performance, with implications for the investment decisions they make during college. Prior work has emphasized gender differences in competitiveness, risk preferences, or confidence; this paper shows that beliefs about discrimination—formed before labor market entry—also shape how students interpret academic signals. These patterns do not imply that anticipated discrimination is the only mechanism behind gender differences in grade sensitivity. Rather, the findings show that beliefs about discrimination represent an important and previously understudied channel through which labor market expectations shape academic behavior.

Finally, this perspective has distinct policy implications. If students' expectations accurately reflect labor market conditions, reducing gender disparities in hiring becomes essential not only for equity but also for shaping academic behavior. If instead beliefs are misaligned with actual conditions, providing accurate information about hiring standards or returns to performance may help students make academic choices with a clearer understanding of their

prospects. Future work could further investigate how students form these beliefs and the extent to which they respond to new information during college.

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A   Appendix

Figure A1: Choice Probabilities by Major
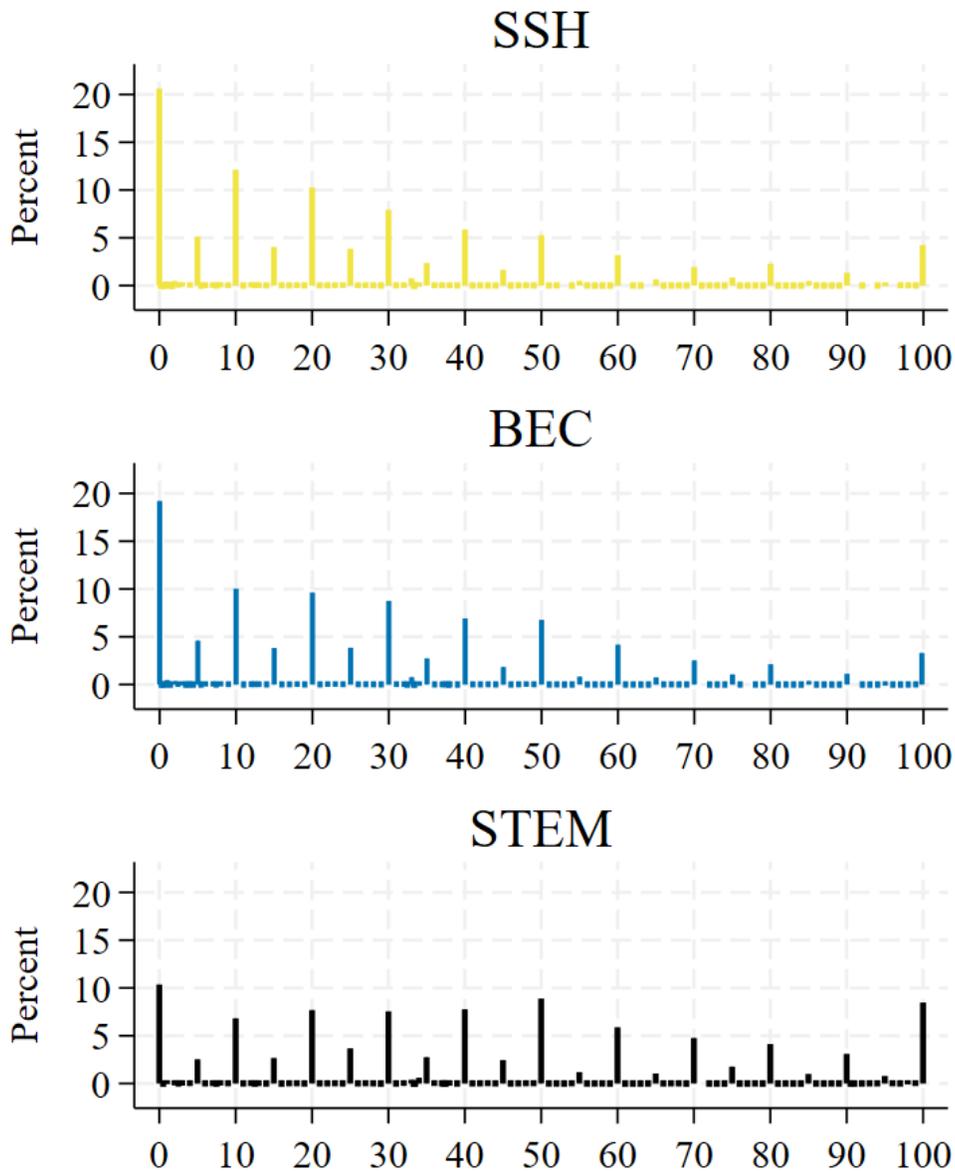
Notes: Histograms of choice probabilities for each major pooled across all scenarios.

Table A1: Sample Compared to ASU Population

	Survey			ASU			P-value[c]
	Female	Male	Diff.	Female	Male	Diff.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Black	0.05	0.03	0.02	0.04	0.03	0.01	0.134
White	0.66	0.70	-0.04	0.46	0.48	-0.02	0.498
Hispanic	0.23	0.18	0.05	0.29	0.23	0.07	0.284
First Generation[a]	0.29	0.23	0.06	0.31	0.23	0.08	0.263
Family Income[b]	102	109	-7.1	126	151	-26	0.181
Freshman	0.22	0.20	0.02	0.26	0.25	0.01	0.776
Sophomore	0.24	0.23	0.00	0.26	0.25	0.01	0.853
Junior	0.30	0.30	0.01	0.22	0.22	0.00	0.806
Senior	0.24	0.27	-0.03	0.26	0.28	-0.02	0.742
ACT	27.71	28.56	-0.85	23.98	25.62	-1.64	0.003
STEM	0.38	0.58	-0.20	0.29	0.48	-0.20	0.984
BEC	0.18	0.21	-0.03	0.17	0.26	-0.09	0.001
SSH	0.44	0.22	0.22	0.54	0.25	0.29	0.004
Sample Size	1,236	700		22,755	21,637		0.000[d]

Notes: ASU data includes everyone taking at least one class for credit during the Spring semester of 2021 and attending ASU as their first full-time university. Income and first generation variables for the ASU data are constructed with the first year of available data, which it is not the freshman year all the sample.
[a] Students with no parent with a college degree.
[b] Family income in thousands of dollars.
[c] P-value for whether the gender differences in the survey sample and the ASU population are different.
[d] P-value for the difference in females proportion between the survey sample and ASU population.

Table A2: Beliefs about Major Attributes by Gender

	Av. GPA			Av. Study Time			Av. Earnings		
	Female	Male	P-value	Female	Male	P-value	Female	Male	P-value
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
SSH	3.47	3.38	0.000	14.60	12.68	0.000	41.60	40.01	0.005
	(0.27)	(0.30)		(8.26)	(7.49)		(12.56)	(10.74)	
BEC	3.37	3.29	0.000	14.06	13.20	0.024	55.02	53.57	0.067
	(0.31)	(0.31)		(8.17)	(7.89)		(17.66)	(14.80)	
STEM	3.37	3.21	0.000	22.72	21.23	0.002	66.47	64.16	0.020
	(0.33)	(0.32)		(10.19)	(9.97)		(22.57)	(17.88)	

Notes: Averages by gender for each major attribute. The p-value indicates the statistical significance of the gender gap. Earnings in thousands of dollars. Standard deviation reported in parentheses. Participants reported their beliefs by answering the following questions: *"What do you think is the average cumulative GPA of students graduating in each major category?"*; *"On average, how many hours do you think an average full-time student spends studying in a typical 7-day week during the spring or fall semester in each of the following major categories?"*; and *"In the year after graduation, what do you think are the average annual earnings of full-time workers who graduated with a degree in each of the following major categories?"*

Table A3: Variation in the Hypothetical Major Choice Scenarios

	Mean	Std. Dev.	Min.	Max.
	(1)	(2)	(3)	(4)
SSH				
Av. GPA	3.38	0.43	4.00	2.00
Av. Study Time	15.53	9.44	40	3
Av. Earnings	43.46	16.29	190	15
BEC				
Av. GPA	3.28	0.50	4.00	2.00
Av. Study Time	15.56	9.53	40	3
Av. Earnings	52.78	21.18	200	15
STEM				
Av. GPA	3.28	0.46	4.00	2.00
Av. Study Time	20.72	10.34	40	3
Av. Earnings	62.77	24.38	200	15

Notes: Earnings in thousands of dollars. Study time in hours per week.

Table A4: Gender Gaps in WTP for GPA: STEM

	Life and Medical Sciences	Other STEM Majors
	(1)	(2)
Female	4,213	3,994*
	(3,559)	(2,201)
Mean	12,250	7,060
R2	0.07	0.04
N	232	318

Notes: Outcome variable is WTP for an extra point in av. GPA at graduation. All columns control for household income, parents education, SAT/ACT, school year, minority. Sample includes participants enrolled in a STEM majors split between life and medical sciences and other STEM majors. Bootstrapped standard errors reported in parentheses. *Significant at 10%, **5%, ***1%.

B Appendix: Questionnaire

For the purpose of this study, ASU majors will be grouped in 3 broad categories:

        Social Sciences/Humanities/Other

        Business/Economics

        Science/Technology/Engineering/Math

If you are not sure about the category your current (or most likely) major falls into, please click here.

Q1. What fields are you currently majoring in? List up to two majors.

        Primary Major:

        Major 2:

In this section, we are interested in learning about your beliefs about what good grades are and why they are important. There are no right or wrong answers. We simply want to know what your beliefs are.

Q2. How important do you think the following factors are in motivating you to get good grades?

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Find a job after graduation					
Have a successful career trajectory					
Keep your parents satisfied					
Keep or apply for scholarships					
Attend graduate school					
Demonstrate to professors that you are good in your major					
Demonstrate to peers that you are good in your major					
Provide confidence that you made the right major choice					
Your own satisfaction					

Q3. What do you think is the average cumulative GPA of students graduating in each major category?

Social Sciences/Humanities/Other	Slider (2-4)
Business/Economics	Slider (2-4)
Science/Technology/Engineering/Math	Slider (2-4)

Q4. Consider a situation where you are enrolled in each of the following major categories. What do you think is the minimum cumulative GPA that you would need to get a full-time job after graduation in the same field as the degree?

Social Sciences/Humanities/Other	Slider (2-4)
Business/Economics	Slider (2-4)
Science/Technology/Engineering/Math	Slider (2-4)

Q5. In the year after graduation, what do you think are the <u>average annual earnings of full-time workers</u> who graduated with a degree in each of the following major categories?

Social Sciences/Humanities/Other	
Business/Economics	
Science/Technology/Engineering/Math	

Q6. On average, how many hours do you think an <u>average full-time student</u> spends studying in a **typical 7-day week** during the spring or fall semester in each of the following major categories?

Note: study time includes time doing homework, reading, group projects, or studying for tests and quizzes but not time attending classes.

Social Sciences/Humanities/Other	Dropdown (1-41+)
Business/Economics	Dropdown (1-41+)
Science/Technology/Engineering/Math	Dropdown (1-41+)

Scenarios

In this section of the survey, you will be presented with 10 different hypothetical scenarios where each major category is characterized by:

- Average cumulative GPA at graduation
- Average study time per-week
- Average annual earnings in a full-time job

In each scenario, please imagine that you have not chosen a major and you are thinking of what to choose. You will be asked for the percent chance (or chances out of 100) that you would choose to graduate from each category given the characteristics in the scenario.

Scenario 1 [Understanding]

Imagine a situation in which you have not chosen a major yet and each major category is characterized as in the table below.

	Average GPA (a)	Average Weekly Study Hours (b)	Average Earnings After Graduation (full-time job) (c)
Social Sciences/Humanities/Other	3.02	14.5	$24,000
Business/Economics	2.88	12.0	$42,500
Science/Technology/Engineering/Math	2.50	18.0	$40,000

For example, in this scenario students from Social Sciences/Humanities/Other (a) graduate with a cumulative GPA of 3.02 on average; (b) study 14.5 hours per-week on average, and (c) on average have annual earnings of $24,000 in a full-time job.

This question is just meant to make sure you are paying attention. Please select all the statements that are true according to this scenario.

- o On average students in Science/Technology/Engineering/Math have lower GPA at graduation than students in Business/Economics.
- o On average students in Business/Economics study more hours per-week than students in Social Sciences/Humanities/Other.
- o On average students in Science/Technology/Engineering/Math study more hours per-week than students in Business/Economics.
- o On average students in Science/Technology/Engineering/Math have lower annual earnings than students in Business/Economics.
- o On average students in Business/Economics have higher GPA at graduation than students in Social Sciences/Humanities/Other.

Scenario 1

Imagine a situation in which you have not chosen a major yet and each major category is characterized as in the table below.

	Average GPA (a)	Average Weekly Study Hours (b)	Average Earnings After Graduation (full-time job) (c)
Social Sciences/Humanities/Other	3.02	14.5	$24,000
Business/Economics	2.88	12.0	$42,500
Science/Technology/Engineering/Math	2.50	18.0	$40,000

For example, in this scenario students from Social Sciences/Humanities/Other (a) graduate with a cumulative GPA of 3.02 on average; (b) study 14.5 hours per-week on average, and (c) on average have annual earnings of $24,000 in a full-time job.

What is the percent chance (or chances out of 100) that you would choose to graduate from each category given these characteristics?

Note: The chance of each major category should be a number between 0 and 100 and the chances assigned to the three categories should add up to 100.

Social Sciences/Humanities/Other	
Business/Economics	
Science/Technology/Engineering/Math	
Total	

Scenario 2

Imagine a situation in which you have not chosen a major yet and each major category is characterized as in the table below.

	Average GPA (a)	Average Weekly Study Hours (b)	Average Earnings After Graduation (full-time job) (c)
Social Sciences/Humanities/Other	3.25	15.5	$55,000
Business/Economics	2.65	13.5	$60,000
Science/Technology/Engineering/Math	2.85	15.5	$66,000

What is the percent chance (or chances out of 100) that you would choose to graduate from each category given these characteristics?

 Note: The chance of each major category should be a number between 0 and 100 and the chances assigned to the three categories should add up to 100.

Social Sciences/Humanities/Other	
Business/Economics	
Science/Technology/Engineering/Math	
Total	

Scenario 3
…
Scenario 10

Background Characteristics

In this section we will ask you some background questions.

B1. What is your gender?

Male

Female

Non-binary/Other

B2. What is your current age?

[Dropdown 18-41+]

B3. What is your country of birth?

B4. Are you an international student?

Yes

No

B5. What is your race/ethnicity? Please select all that apply.

White/Caucasian

Black/African American

American Indian

Asian/Pacific Islander

Hispanic/Latino

Other

B6. What is the highest level of education your mother has completed?

B7. What is the highest level of education your father has completed?

B8. Which category best represents the total annual income of your parents last year?
B9. We would like to know your SAT score. Please skip this question if you did not take the SAT.
>   What was your SAT verbal score?
>   What was your SAT math score?

B10. What was your composite score on the ACT? Please skip this question if you did not take the ACT.
B11. What year are you at ASU?
>   Freshman
>   Sophomore
>   Junior
>   Senior

LAST PART

This is the last section!

L1. Please indicate how likely you think each of the following situations would be in a scenario in which you hold a degree and work in each of the major categories below.
1) It would be harder to find a job because of your gender.

	Extremely unlikely	….			Extremely likely
Social Sciences/Humanities/Other					
Business/Economics					
Science/Technology/Engineering/Math					

2) Your supervisor (boss) would treat you differently because of your gender.

	Extremely unlikely	….			Extremely likely
Social Sciences/Humanities/Other					
Business/Economics					
Science/Technology/Engineering/Math					

3) Your peers (coworkers) would treat you differently because of your gender.

	Extremely unlikely				Extremely likely
		….			
Social Sciences/Humanities/Other					
Business/Economics					
Science/Technology/Engineering/Math					

L2. Please indicate how much you agree with the following statements.

	Strongly disagree	….			Strongly agree
A woman competing for a job in **Social Sciences/Humanities/Other** would need a higher GPA than an otherwise similar man to be competitive					
A woman competing for a job in **Business/Economics** would need a higher GPA than an otherwise similar man to be competitive					
A woman competing for a job in **Science/Technology/Engineering/Math** would need a higher GPA than an otherwise similar man to be competitive					

C Appendix

ASU Majors in Each Broad Category

Humanities/Social Sciences (SSH)

African and African American Studies

American Indian Studies

Anthropology

Applied Science

Applied Science (Applied Leadership)

Applied Science (Early Childhood Studies)

Applied Science (Emergency Management)

Applied Science (Food and Nutrition Entrepreneurship)

Applied Science (Graphic Information Technology)

Applied Science (Health Entrepreneurship and Innovation)

Applied Science (Health Sciences)

Applied Science (Medical Laboratory Science)

Applied Science (Project Management)

Applied Science (Technical Communication)

Architectural Studies

Art

Asia Studies

Asian Languages

Asian Pacific American Studies

Civic and Economic Thought and Leadership

Communication

Community Advocacy and Social Policy

Community Development

Community Health

Community Sports Management

Conflict Resolution

Counseling and Applied Psychological Science

Criminology and Criminal Justice

Dance

Design Studies

Dietetics

Digital Audiences

Digital Culture

Digital Media Literacy

Disability Studies

Early Childhood and Early Childhood Special Education

Educational Studies

Elementary Education

English

Environmental Design

Exercise and Wellness

Family and Human Development

Fashion

Film

Food and Nutrition Entrepreneurship

French

General Studies

German

Global Health

Global Studies

Graphic Design

Health Care Compliance and Regulations

Health Care Coordination

Health Education and Health Promotion

Health Entrepreneurship and Innovation

Health Sciences

Health Sciences (Health Policy)

Health Sciences (Healthy Lifestyles and Fitness Science)

Health Sciences (Pre-professional)

History

History of Science, Ideas and Innovation

Industrial Design

Innovation in Society

Integrated Studies

Integrative Health

Integrative Social Science

Interdisciplinary Arts and Performance

Interdisciplinary Arts and Sciences

Interdisciplinary Studies

Interior Design

International Letters and Cultures

International Public Health

Italian

Jewish Studies

Journalism and Mass Communication

Justice Studies

Landscape Architecture

Latin American Studies

Liberal Studies

Mass Communication and Media Studies

Music
Music Learning and Teaching
Music Therapy
Nonprofit Leadership and Management
Nursing
Nutrition
Nutritional Sciences
Organizational Leadership
Parks and Recreation Management
Performance
Performance and Movement
Philosophy
Philosophy, Religion and Society
Political Science
Politics and the Economy
Population Health
Prelaw
Psychology
Public Health
Public Service and Public Policy
Recreation Therapy
Religious Studies
Russian
Science of Health Care Delivery
Science, Technology and Society
Secondary Education
Secondary Education (Biological Sciences)
Secondary Education (Chemistry)
Secondary Education (Earth and Space Sciences)
Secondary Education (English)
Secondary Education (German)
Secondary Education (History)
Secondary Education (Mathematics)
Secondary Education (Physical Education)
Secondary Education (Physics)
Secondary Education (Political Science)
Secondary Education (Spanish)
Social and Behavioral Sciences
Social and Cultural Analysis
Social Justice and Human Rights
Social Work
Sociology
Spanish
Special Education
Special Education and Elementary Education
Speech and Hearing Science
Sports Journalism
Sports Science and Performance Programming
Technical Communication
Technological Leadership
Theatre
Theory and Composition
Tourism and Recreation Management
Tourism Development and Management
Transborder Chicana/o and Latina/o Studies
Urban and Metropolitan Studies
Urban Planning
Women and Gender Studies

Social Work
Sociology
Spanish
Special Education
Special Education and Elementary Education
Speech and Hearing Science
Sports Journalism
Sports Science and Performance Programming
Technical Communication
Technological Leadership
Theatre
Theory and Composition
Tourism and Recreation Management
Tourism Development and Management
Transborder Chicana/o and Latina/o Studies
Urban and Metropolitan Studies
Urban Planning
Women and Gender Studies

Science/Technology/Engineering/Mathematics (STEM)

Actuarial Science
Aeronautical Management Technology
Aerospace Engineering
Applied Biological Sciences
Applied Computing
Applied Mathematics
Applied Mathematics for Life and Social Sciences
Applied Physics
Applied Quantitative Science
Applied Science (Aviation)
Applied Science (Internet and Web Development)
Applied Science (Operations Management)
Astronomical and Planetary Sciences
Biochemistry
Biological Sciences
Biology
Biomedical Engineering
Biomedical Informatics
Biophysics
Biotechnology and Bioenterprise
Chemical Engineering
Chemistry
Civil Engineering
Computational Forensics
Computational Mathematical Sciences
Computer Information Systems
Computer Science
Computer Systems Engineering
Construction Engineering
Construction Management and Technology
Data Science
Earth and Environmental Studies
Earth and Space Exploration
Electrical Engineering
Engineering
Engineering Management
Environmental and Resource Management
Environmental Engineering
Environmental Science
Forensic Science

Geographic Information Science
Geography
Graphic Information Technology
Human Systems Engineering
Industrial Engineering
Informatics
Information Technology
Kinesiology
Manufacturing Engineering
Materials Science and Engineering
Mathematics
Mechanical Engineering
Medical Studies
Microbiology
Molecular Biosciences and Biotechnology
Neuroscience
Pharmacology and Toxicology
Physics
Software Engineering
Statistics
Sustainability
Sustainable Food Systems
Technological Entrepreneurship and Management

Business/Economics (BEC)

Accountancy
Business
Economics
Economics (Politics and the Economy)
Finance
Food Industry Management
Global Management
International Trade
Management
Marketing
Supply Chain Management