Exam Reward Structure, Gender Performance Gaps, and Labor Market Outcomes

Bruna Borges* Fernanda Estevan† Louis-Philippe Morin‡

Abstract

We analyze how higher task rewards affect the gender performance gap using data from a selective Brazilian university's admission exam. Our data allow us to control for applicants' major-choice self-selection issues flexibly and to track applicants' labor market outcomes years later. We find that women's performance decreases relative to men's in higher-reward subjects due to differing exam strategies. Looking at future labor market outcomes, we find that performing well on higher-reward subjects positively relates to wages. However, our findings cast doubt on whether gender differences in prioritizing rewarding tasks in an exam environment can explain the gender wage gap.

Keywords: post-secondary education, gender pay gap, high-stakes assessments.
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*Sao Paulo School of Economics - FGV, Rua Dr. Plinio Barreto, 365, Sao Paulo, SP, Brazil; email: bruna.borges@fgv.br.

†Sao Paulo School of Economics - FGV, Rua Dr. Plinio Barreto, 365, Sao Paulo, SP, Brazil; email: fernanda.estevan@fgv.br.

‡Department of Economics, University of Ottawa, 120 University, Ottawa ON K1N 6N5, Canada; email: lmorin@uottawa.ca.

1 Introduction

Despite progress in educational attainment and labor market outcomes, women remain underrepresented in high-earning jobs (Bertrand, 2018). Reaching top positions within occupations typically involves performing well in competitive environments and prioritizing high- rather than low-rewarding endeavors. Evidence suggests that women underperform relative to men in competitive settings (Gneezy et al., 2003) and are more likely than men to prioritize activities that benefit their team rather than themselves (Babcock et al., 2017a,b).

Recent research explores behavioral gender differences as potential explanations for labor market gender disparities. Part of this literature focuses on real-world settings, such as exams.[1] There is evidence that women, relative to men, underperform in competitive settings (Jurajda and Münich, 2011; Ors et al., 2013; Morin, 2015; Iriberri and Rey-Biel, 2019). Moreover, women perform relatively worse when stakes are higher (Azmat et al., 2016; Cai et al., 2019; Schlosser et al., 2019). Whether these exam performance gaps can explain gender gaps in the labor market is still an open research question (Blau and Kahn, 2017).

In this paper, we show that, as found by previous studies, women and men react differently to higher-reward tasks within a competitive setting, a university admission exam, where the potential payoffs are substantial. The richness of our data allows us to move the literature forward in two important ways. First, we investigate potential channels driving this gender gap. Second, and crucially, we link our university data to labor-market data to assess whether gender differences in prioritizing rewarding tasks can help explain the gender wage gap.

We use admission exam data from a selective Brazilian university, *Universidade Estadual de Campinas* (UNICAMP), to investigate how the female-male performance gap changes in parts of the exam that count more towards the final admission exam score, i.e., in which rewards are higher. In our setting, we observe female and male applicants taking the same exams but with different performance rewards on different questions within exams. Specifically, UNICAMP applicants must write the admission exam in two phases, nearly two months apart. Both stages are composed of open-ended questions on typical high school subjects (e.g., biology, history, mathematics). In Phase 1, the final score is the unweighted average of all subjects. Therefore, there is no advantage in doing exceptionally well on a specific subject. In Phase 2, applicants answer questions on the same subjects, but their major choice determines the so-called 'priority subjects', i.e., one or two subjects that receive a weight of two instead of one in the final score. To boost their admission prospects, applicants should, all else equal, try to do better in these priority subjects.

[1] Other studies use laboratory experiments (e.g., Niederle and Vesterlund, 2010; Wieland and Sarin, 2012).

Our setting allows us to overcome many pervasive obstacles in the literature. First, although there can be changes in difficulty and competitiveness levels between Phases 1 and 2, the exams' timing, format, and content are identical for all applicants within each phase. Second, our data enable us to control both for applicants' overall ability (using individual fixed effects and an end-of-high-school exam score) and their subject-specific ability (using their performance in Phase 1, when subjects are equally weighted). Furthermore, we can rule out the possibility that women or men do not provide significant effort (or slack off) in Phases 1 or 2. Indeed, one must pass Phase 1 to advance to Phase 2, and relative (rather than absolute) performance determines admission. These features allow us to avoid potential confounding factors one faces when applicants have a goal, like attaining a specific final grade, and adjust their effort based on past performance (e.g., on midterms). Lastly, although the competition and difficulty levels may change between Phase 1 or the end-of-high-school exam and Phase 2, our empirical strategy also allows us to isolate the impact of high versus low rewards when we compare individuals' performance within Phase 2 only and use solely individual and subject fixed effects as controls. In that specification, we hold environmental elements constant, such as the competition and difficulty levels and the pool of competitors, and examine changes in performance that are purely due to higher rewards.

We show that higher rewards significantly affect the gender performance gap. Moving from a non-priority to a priority subject reduces women's relative performance by 9% of the within-applicant standard deviation (s.d.). This effect is larger for higher-ability applicants. We simulate admissions without the priority-subject-induced performance gender gap and find that closing it would have a modest effect on admission rates for majors with below-average acceptance rates, such as medicine and economics.

Our evidence suggests that gender differences in exam strategy may be behind these results. First, we show that women and men adopt different strategies when faced with questions they are uncertain about the answer. Women tend to omit relatively more priority-subject questions, while men attempt to answer them, but they are also more likely to provide a wrong answer. Interestingly, this omission pattern is especially noticeable in male-dominated fields, such as mathematics and physics, suggesting a potential role for (a lack of) confidence among female applicants explaining our results. Second, women spread their effort more equally across Phase 2 subjects and across questions within priority-subject exams.

Finally, we test whether better performance in priority subjects predicts higher earnings in the formal labor market. We extract residuals from Phase 2 performance regressions, which capture applicants' 'unexpected' performance in each subject. For each individual, we compute the difference between the average residuals in priority and non-priority subjects. This metric, called 'relative priority performance', quantifies an applicant's ability to perform

well in priority subjects. We then estimate wage regressions controlling for relative priority performance and find that this measure positively correlates with wages. These findings are consistent with prior research demonstrating that competitiveness (Reuben et al., 2015; Buser et al., 2024) and underconfidence (Adamecz and Shure, 2024) are good predictors of labor market outcomes. Still, the gender gap in exam relative priority performance cannot account for the observed gender wage gap, casting doubt on whether we can extrapolate exam-performance gender differences beyond the academic environment. This last finding aligns with the recent literature showing small to moderate impacts of gender differences in behavior on labor market outcomes. For instance, Reuben et al. (2015) and Buser et al. (2024) estimate that gender gaps in competitiveness account for at most 10% of the observed gender differences in earnings. Similarly, Adamecz and Shure (2024) find that overconfidence explains about 5% of the gender wage gap. Interestingly, our findings suggest that women are more likely than men to select majors where relative priority performance is less critical, highlighting the crucial role of major choice in explaining labor market gender gaps.

Our work contributes to the literature in important ways. First, we show that the gender performance gap persists even in a context in which all exams are high-stakes, there are no changes in the competition level, the pool of competitors, or the exam format, and applicants cannot precisely adjust their effort based on previous performance, as they only learn about their ranking by the end of the admission process. Second, we examine a real-life scenario characterized by moderate changes in rewards, wherein tasks with negligible or near-zero stakes are non-existent. We believe this setting more accurately reflects actual labor market conditions. Moreover, our detailed data permit us to investigate differences in exam strategy at the exam-question level, an aspect the previous literature has been mostly unable to exploit. Finally, our data also allow us to test if exam performance in higher-reward tasks can account for differences in future wages up to 12 years after the admission exam.

We organize the rest of the paper as follows. Section 2 details UNICAMP's admission exam process. We describe the data in Section 3 and the empirical strategy in Section 4. Section 5 shows our main results, including estimates for heterogeneity across subjects and applicant ability and robustness checks. Next, we investigate mechanisms that could explain our results in Section 6. In Section 7, we present the impact of the gender gap in terms of university admission and future wages. Finally, Section 8 provides a conclusion.

2 UNICAMP Admission Exam

UNICAMP, a large and prestigious public university in Brazil, is located in Campinas, São Paulo—the country's largest and wealthiest state. As public universities in Brazil do not

charge tuition, admission to UNICAMP is highly competitive due to its reputation.

Each year, individuals applying to UNICAMP write an admission exam. Admission is competitive, as only around 10% of applicants are admitted. When registering for the exam (about two months before writing it), candidates rank up to three majors, so admission is major-specific. However, since UNICAMP uses an admission allocation based on the Boston mechanism, most of the successful applicants (90%) are admitted to their first-choice major.

The admission exam is composed of two sequential phases (hereafter P_1 and P_2).[2] Applicants write P_1 in November, P_2 in January, and the academic year begins in late February. In both phases, exams are identical for all applicants, regardless of their major choice.

In P_1, all applicants answer the same 12 open-ended questions—two for each of biology, chemistry, geography, history, mathematics, and physics. Importantly, all subjects carry equal weight (2.5 points each) in the P_1 score, providing no incentive for applicants to prioritize any specific subject. Additionally, applicants must write an essay worth 30 points. The final P_1 score may or may not incorporate the ENEM (*Exame Nacional do Ensino Médio*) score, a standardized exam taken at the end of high school.[3]

To qualify for P_2, applicants' P_1 score must exceed a major-specific P_1 cutoff. The baseline P_1 cutoff score is set at 30 points, which is 50% of the total 60-point P_1 score. However, UNICAMP adjusts P_1 cutoff scores after grading P_1 exams to ensure that, in P_2, each major has between three and eight applicants per available slot. For instance, in 2003, the P_1 cutoff score for medicine was 50.5 points, while for statistics, it was 26 points.

P_2 covers the same subjects as in P_1, plus Portuguese and a foreign language. There are 12 equally weighted questions for each subject. P_2 is administered over four days, testing two subjects per day. Each day, applicants have four hours to submit their answers for both subjects. Both subject exams are provided to applicants simultaneously; they are free to choose the order in which they answer each subject/question. Still, while applicants are not required to follow the exam layout (and we cannot identify the order in which they answer questions), Online Appendix Figure O.1 shows an increasing proportion of omitted questions and questions with a score of zero as the question-layout order increases, suggesting they answer questions in the order presented to them.[4]

As in P_1, P_2 is composed of open-ended questions and are identical for all applicants. However, contrary to P_1, applicants' subject scores are not equally weighted in their P_2 score

[2]Some majors, like performing arts, also require an aptitude test. We drop these majors from the analysis since their exam weighting schemes differ from those of the other majors.

[3]See the Online Appendix O.1 and Estevan et al. (2019) for more details on the admission procedure.

[4]This pattern cannot be fully explained by an increasing trend in the proportion of difficult questions as their order progresses. Indeed, Online Appendix Figure O.2 shows considerable variation in the share of difficult questions within each question order, particularly among applicants who obtained at least partial marks, as opposed to those who left them blank or scored zero.

calculation. Instead, one or two P_2 subjects are designated as *priority subjects*, receiving a weight of two (instead of one) in the final score calculation, depending on the applicant's major choice. In practice, each of the three major choices will have a distinct P_2 score, depending on its priority subjects. Our main specification focuses on the priority subjects of applicants' first major choice, consistent with the allocation mechanism where the first major choice is the relevant one. Online Appendix Table O.1 shows that while women's first major choices involve fewer priority subjects than men's, this gap disappears when considering all choices and controlling for the first choice, which may influence subsequent choices.

Online Appendix Table O.2 lists majors in our sample along with their priority subjects, admission cutoffs, female applicant share, and first-choice application rates (2001-2004). Most majors have two priority subjects, which vary significantly across fields. Some clusters of priorities (e.g., biology and chemistry for life-science majors; mathematics and physics for engineering majors) are more popular with a particular gender (e.g., life-science programs are usually more prevalent among women). However, there remains significant and non-trivial variation in priority subjects and female proportions across majors. For instance, 45% of chemical engineering applicants are women, with chemistry and mathematics being priorities. Economics, with 39% female applicants, prioritizes history and mathematics, while food engineering, with 76% women, prioritizes mathematics and physics.

An applicant's final P_2 score is the weighted average of her normalized: 1) P_1 score, with a weight of two; 2) P_2 priority-subject scores, each with a weight of two, and; 3) P_2 non-priority subject scores, each with a weight of one. Thus, for a typical major with two priority subjects, priority subjects count for one-third of applicants' final admission scores. Based on final scores and the number of available slots, UNICAMP makes offers first to those who opted for that major as their first choice.

3 Data

We match data from UNICAMP's admission office (*Comissão Permanente para os Vestibulares*, COMVEST) with employer-employee data from *Relação Anual de Informações Sociais* (RAIS).

The COMVEST dataset contains individual-level information on all 2001-2004 UNICAMP applicants.[5] We focus on the six subjects covered in both P_1 and P_2, i.e., biology, chemistry, history, geography, mathematics, and physics, to be able to control for applicants'

[5]We focus on the pre-affirmative action period (pre-2005) to avoid policy-driven changes in applicant pools (Estevan et al., 2019) and exclude pre-2001, as more applicants qualified for P_2 compared to subsequent years.

subject-specific ability in our empirical approach.[6]

Since we know applicants' major choices, we can easily identify their priority subjects. As explained in Section 2, we consider only priority subjects associated with applicants' first major choice in our main analysis. We present robustness checks where we also consider priorities associated with applicants' second and third choices in Subsection 5.3.

We observe applicants' grades on each of the 12 P_1 and 72 P_2 questions. For 2001-2002, we also distinguish between an omitted question and an answered question that received a score of zero. In addition, UNICAMP applicants must answer a socioeconomic survey when registering for the admission exam. This survey reports applicants' gender, age, parental education, and whether applicants are first-time UNICAMP exam takers, attended a preparatory course, studied in the Campinas region, attended public or private high school.

Finally, the dataset contains ENEM scores for those who provided their ENEM IDs (96% of our sample).[7] ENEM is a national, externally graded, end-of-high-school exam used by some universities for admission. Therefore, the ENEM score provides an ability measure independent of UNICAMP's admission exam.

Our initial sample contains 45,687 applicants who attended both P_1 and P_2 for admission (not as a practice test) and applied to a major not requiring an aptitude test. We drop applicants with missing gender information (0.6%), with ages below 16 or above 27 (2.5%), a missing ENEM score (4%), and no priority subjects among the six covered ones (0.3%).[8] Finally, we keep only the last attempt of applicants who wrote the admission exam more than once during our time frame.[9] Our final sample contains 36,933 applicants for 2001-2004.

Online Appendix Table O.4 presents applicant-level information for our sample of interest. Female and male applicants differ in many meaningful dimensions, justifying our empirical strategy presented in the next section. First, on average, women score significantly lower on the ENEM exam and tend to apply to less competitive majors than men (based on their average admission cutoffs). Women score an average of 0.24 s.d. below the overall ENEM average. The difference between men and women in the average admission cutoffs of their first-choice major is about 26 pts, or 0.33 s.d. of the major-cutoff distribution. The gender difference in P_1 scores is not as large as in ENEM performance.

[6] As shown in the Online Appendix Figure O.3, there is a strong correlation between P_1 and P_2 scores for all subjects. Additionally, Online Appendix Table O.3 shows that normalized P_1 scores account for nearly one-third of the variability in normalized P_2 scores (and more than one-quarter for non-normalized scores). P_1 scores continue to have predictive power beyond individual fixed effects.

[7] See Online Appendix O.1 for more details on ENEM in the UNICAMP admission exam.

[8] In practice, we exclude philosophy applicants after 2001, as mathematics ceased to be a priority subject for this program, leaving only Portuguese, which is excluded from our main analysis, as priority subject.

[9] We keep applicants' last attempt since we use the year applicants wrote the exam to predict when they fully entered the labor market. Of the 42,275 candidates in our main analysis sample, 87% appear once, 12% appear twice, and 1% appear three or four times.

The gender gap in ENEM performance is not unique to our UNICAMP sample. In 2001, men in São Paulo state outperformed women by 0.31 s.d. in general ENEM questions, while women had a 0.18 s.d. advantage in the essay. We observe similar patterns in Online Appendix Table O.5 for P_1 and P_2 normalized scores, with female applicants scoring lower in most subjects except the essay in P_1 and Portuguese in P_2. More broadly, Brazil mirrors OECD trends, where women excel in high school, but men perform better on standardized tests, especially at higher ability levels (e.g., Pope and Sydnor, 2010).

Since women and men apply to different majors, their priority subjects differ significantly. Forty percent of women have biology as a priority, a proportion twice as large as men's. Some of these majors have only one priority subject (e.g., biological sciences and nursing), which explains the smaller average number of priority subjects for women. In contrast, men are likelier to have mathematics (71% vs. 39%) or physics (54% vs. 23%) as priority subjects.

Online Appendix Table O.4 also shows gender differences in P_2 scores for the weighted (using different weights for priority subjects relative to non-priority subjects) and unweighted averages. Men do better than women, which is not surprising given the differences in ENEM and P_1 performances. The weighted average is above zero, indicating that applicants perform better in their priority subjects and select majors based on their relative advantages.

In theory, gender differences in major selection, and therefore priority-subject choice, would jeopardize the identification of the effect of higher rewards, especially if this selection is based on expected priority-subject performance. The richness of our data—being able to observe applicants' previous subject-specific performance and to include applicant fixed effects since we observe six outcomes per applicant—and our empirical strategy will allow us to control for major self-selection based on subject-specific ability (or gains in performance) in a flexible way.

Since our variation of interest occurs at the subject level (priority vs. non-priority subjects), the within-applicant performance variation is more informative than the overall one (which combines within- and cross-applicant variation) to gauge the magnitude of our effect. As expected, the P_2 within-applicant s.d. (0.62) is lower than the overall s.d. (fixed at one).

Lastly, we merge UNICAMP administrative data with the 2002-2018 RAIS database to track applicants' wages in the years following the admission exam.[10] The RAIS is a comprehensive matched employer-employee database that covers the entire Brazilian formal labor market. For all cohorts (2001-2004), we observe individual labor market outcomes for up to 14 years post-application. Online Appendix Table O.4 shows an 81% match rate between the RAIS and UNICAMP datasets seven to 12 years after the exam, with match rates for women being three percentage points lower. The table provides information on

[10]Online Appendix O.2 details the matching between UNICAMP and employer-employee RAIS data.

average and maximum wages observed during this period, reported in 2002 Brazilian *reais*. On average, women earn about 23% less than men.

4 Empirical Model

We present an analytical framework to motivate our regression model and highlight its identification challenges. Imagine an applicant i writing an exam consisting of questions on different subjects, s. Some subjects, called priority subjects, are weighted more heavily than others to determine the exam's score. Applicant i's performance on a specific subject, y_i^s, can be expressed as:

$$y_i^s = \rho^s + \lambda^s \pi_i + \tau \gamma_i^s + \mathbb{P}_i^s \phi_i + \mathbb{P}_i^s \omega_i^s + \varepsilon_i^s, \tag{1}$$

where the first three terms on the right-hand side capture the main performance determinants when a subject is not a priority. First, ρ^s represents elements that can affect a subject's grade equally across students (e.g., the overall difficulty level of subject s). The term $\lambda^s \pi_i$ captures how one's general academic ability, π_i, translates into subject s performance. Hence, we allow some subjects to discriminate between lower and higher general academic ability levels more easily. Finally, an applicant's subject-specific ability, γ_i^s, makes them perform better (or worse) in that subject relative to the other ones.

$\mathbb{P}_i^s$ is an indicator function equal to one if subject s is a priority subject for applicant i. ϕ_i is the applicant's overall (average) performance change when a subject is a priority while ω_i^s is the applicant's subject-specific additional performance change (over and above ϕ_i) when s is a priority. Thus, we allow applicants' ability and reaction to a priority subject to differ across subjects. Finally, ε_i^s is a purely random performance shock. Note that, other than $\mathbb{P}_i^s$, none of the terms on the right-hand side of equation (1) are observed.

Since we are interested in group (i.e., gender) average performance changes when facing priority subjects, it is useful to express equation (1) in terms of deviations from group means:

$$y_i^s = \rho^s + \lambda^s [\pi^g + \widetilde{\pi}_i^g] + \tau [\gamma^{s,g} + \widetilde{\gamma}_i^{s,g}] + \mathbb{P}_i^s [\phi^g + \widetilde{\phi}_i^g] + \mathbb{P}_i^s [\omega^{s,g} + \widetilde{\omega}_i^{s,g}] + \varepsilon_i^s, \tag{2}$$

where the parameters without i subscripts represent group averages (e.g., $\pi^g \equiv E(\pi_i|g)$ and $\omega^{s,g} \equiv E(\omega_i^{s,g}|s,g)$), and g stands for gender. Parameters with tildes are the applicant's deviations from group averages (e.g., $\widetilde{\pi}_i^g \equiv \pi_i - \pi^g$). By construction, the expectations of tilde parameters are all equal to zero.[11]

[11] Note that, since all applicants write each and every subject, $E(\pi_i|s,g) = E(\pi_i|g), \forall s$.

Equation (2) suggests the following regression equation:

$$\begin{aligned} y_i^s &= \rho^s + \lambda^s \pi^m + \mathbb{F}_i \lambda^s \Delta\pi + \mathbb{P}_i^s(\phi^m + \omega^{s,m}) + \mathbb{P}_i^s \mathbb{F}_i(\Delta\phi + \Delta\omega^s) \\ &\quad + \lambda^s \widetilde{\pi}_i^g + \tau\gamma^{s,g} + \tau\widetilde{\gamma}_i^{s,g} + \mathbb{P}_i^s[\widetilde{\phi}_i^g + \widetilde{\omega}_i^{s,g}] + \varepsilon_i^s \\ &\equiv \beta_{1,s} + \mathbb{F}_i \beta_{2,s} + \mathbb{P}_i^s \beta_{3,s} + \mathbb{P}_i^s \mathbb{F}_i \beta_{4,s} + u_i^s, \end{aligned} \tag{3}$$

where $\mathbb{F}_i$ is a dummy variable equal to one if applicant i is a woman (zero otherwise), m and Δ stand for men and gender difference, respectively. For example, π^m is male applicants' average general academic ability, and $\Delta\pi$ is the gender gap in general academic ability $(\pi^f - \pi^m)$.[12] Finally,

$$u_i^s \equiv \rho^s + \lambda^s \widetilde{\pi}_i^g + \tau\gamma^{s,g} + \tau\widetilde{\gamma}_i^{s,g} + \mathbb{P}_i^s[\widetilde{\phi}_i^g + \widetilde{\omega}_i^{s,g}] + \varepsilon_i^s. \tag{4}$$

Note that if we were to assume that applicants' subject-specific reaction to facing a priority subject is, on average, homogeneous across subjects (i.e., $\omega^{s,g} = \alpha^g$, $\forall s$), then $\beta_{3,s}$ and $\beta_{4,s}$ in equation (3) would become subject invariant (e.g., $\beta_{4,s} = \beta_4, \forall s$). Our parameter of interest would be β_4, the effect of high versus low rewards on the gender performance gap (or the gender difference in performance change when moving from a non-priority to a priority subject, all else equal). If, instead, we let applicants' reactions vary across subjects, we will have to estimate a full set of $\beta_{3,s}$ and $\beta_{4,s}$. We will present results for both specifications.

The definition of the error term in equation (4) highlights the main challenges when trying to estimate $\beta_{4,s}$ using a standard difference-in-difference approach (whether we allow it to vary across subjects or not). The first two terms in the error term (ρ^s and $\lambda^s\widetilde{\pi}_i^g$) are usually controlled for in the previous literature (see, e.g., Azmat et al., 2016; Cai et al., 2019) using 'test-type' and individual fixed effects (imposing $\lambda^s = \lambda$). Like the previous literature, we should control for each subject's difficulty (ρ^s), especially if more challenging subjects are more likely to be a priority for a specific gender. Hence, we include subject fixed effects. In our case, however, we also allow one's general academic ability to translate into exam performance more or less easily across subjects, and, therefore, using individual fixed effects might not be enough to absorb $\lambda^s\widetilde{\pi}_i^g$. We control for $\lambda^s\widetilde{\pi}_i^g$ by including individual fixed effects and $\widetilde{ENEM}_i^g$, the applicant's relative performance on the ENEM exam (performance minus group g average, as defined above), the latter being interacted with subject fixed effects.

An additional concern for us is that applicants are tested on different subjects, some of which may favor female or male applicants (captured by $\tau\gamma^{s,g}$ in equation (4)). If priority subjects are more likely to be subjects for which male applicants are, on average, better, then

[12] Also, $\beta_{1,s} \equiv \lambda^s\pi^m$, $\beta_{2,s} \equiv \lambda^s\Delta\pi$, $\beta_{3,s} \equiv \phi^m + \omega^{s,m}$, and $\beta_{4,s} \equiv \Delta\phi + \Delta\omega^s$.

we could falsely attribute the gender difference in performance change when moving from a non-priority to a priority subject to the effect of high versus low rewards. This potential issue motivates using gender-specific subject fixed effects in our regression.

The presence of $\widetilde{\gamma}_i^{s,g} + \mathbb{P}_i^s[\widetilde{\phi}_i^g + \widetilde{\omega}_i^{s,g}]$ highlights a common issue when trying to estimate a model with random coefficients. One would wish these terms to be uncorrelated with our regressor of interest ($\mathbb{P}_i^s\mathbb{F}_i$). However, given that applicants choose their major and, therefore, their priority subjects, such an assumption is unlikely to hold. It is entirely plausible that applicants choose their major based on their relative overall performance gain ($\widetilde{\phi}_i^g$) or their comparative advantages (e.g., $\widetilde{\gamma}_i^{s,g}$ or $\widetilde{\omega}_i^{s,g}$), and major self-selection could differ across gender. Such self-selection based on comparative advantage (or performance gain) is the main ingredient of correlated random coefficient (CRC) models (see, e.g., Wooldridge, 2005). Usually, estimating a treatment effect in the presence of correlated coefficients is challenging and requires using control functions, instrumental variables, or selection models (Dahl, 2002; Heckman et al., 2006). Fortunately, we can control for such selection using applicants' performance on each P_1 subject to control for their relative subject-specific ability ($\widetilde{\gamma}_i^{s,g}$). Note that the individual fixed effects will also capture the impact of any changes between the time students write the ENEM exam, or P_1, and when they write P_2 (e.g., changes in the level of competition between P_1 and P_2, ENEM's systematic over/underestimation of one's general academic ability) on student-specific performance insofar as they affect one's performance equally across P_2 subjects. In addition, including subject fixed effects (and their interaction with the gender dummy variable) allows for the change in exam difficulty level between P_1 and P_2 to differ across subjects (and gender).

Finally, to control for applicants' overall and subject-specific relative performance gains from priority subjects, we assume that the main predictors of these gains are flexible functions of the applicant's relative general and subject-specific abilities. We use quartic functions of $\widetilde{P1}_i^{s,g}$ and $\widetilde{ENEM}_i^g$, each interacted with the priority dummy to model $\mathbb{P}_i^s[\widetilde{\phi}_i^g + \widetilde{\omega}_i^{s,g}]$.

Equations (3) and (4), along with the available applicant information, motivate our main regression equation:

$$\begin{aligned} y_i^s = {} & \beta_{3,s}\mathbb{P}_i^s + \beta_{4,s}\mathbb{P}_i^s\mathbb{F}_i + G(\widetilde{P1}_i^{s,g}) + H(\mathbb{P}_i^s \times \widetilde{ENEM}_i^g) + J(\mathbb{P}_i^s \times \widetilde{P1}_i^{s,g}) + \\ & \rho^s + \lambda^s \times \widetilde{ENEM}_i^g + \eta_i + \gamma^{s,g} + \upsilon_i^s, \end{aligned} \tag{5}$$

where $\widetilde{P1}_i^{s,g}$ is the applicant's P_1 relative performance in subject s, and $\widetilde{ENEM}_i^g$ is the applicant's relative performance on the ENEM exam. $G(\cdot)$, $H(\cdot)$ and $J(\cdot)$ are flexible functions

meant to capture $\widetilde{\gamma}_i^{s,g}$, $\mathbb{P}_i^s\widetilde{\phi}_i^g$ and $\mathbb{P}_i^s\widetilde{\omega}_i^{s,g}$, respectively.[13] Subject fixed effects interacted with $\widetilde{ENEM}_i^g$, along with individual fixed effects η_i, will capture $\rho^s + \lambda^s\widetilde{\pi}_i^g$, while gender-subject interactions will capture $\gamma^{s,g}$. The constant term (β_1) and the gender gap in overall performance (β_2) will also be absorbed by the individual fixed effects. Our performance measure y_i^s is the applicant's P_2 score in subject s, normalized by subject and admission year.[14]

4.1 Validity of the Empirical Model

A potential concern would arise if, for instance, men consider their comparative advantage when selecting their major and women consider it to a lesser extent. In that case, the gender gap could derive from gender differences in selection, not gender differences in reaction to higher rewards. Even if our empirical strategy deals with gender differences in comparative advantages, we now show that there is no evidence of gender-specific selection differences into priority subjects, minimizing concerns of biases in our estimated coefficients.

Specifically, we investigate whether we observe gender performance differences in 'future' priority subjects in P_1, when all subjects are equally weighted. If gender differences in comparative advantage explained our findings, we would expect women to perform worse during P_1 in subjects that will become priorities in P_2. If, instead, women were to concentrate more than men on P_1 disciplines that will be priorities in P_2, then one could argue that women cannot improve as much as men in priority subjects between P_1 and P_2. Such a situation would have consequences for interpreting our results from estimating equation (5) when we control for P_1 subject-specific performance. More focused female priority-subject specialization in P_1 (compared to men) could lead to a negative estimate for our parameter of interest despite women being the ones reacting more to increased rewards.

Table 1 presents results from estimating regressions where applicants' P_1 subject-specific scores are regressed on a dummy variable, 'Future Priority', equal to one if the subject will be a priority in P_2, a 'Female $\times$ Future Priority' interaction term, and the same regressors as in equation (5) (but without P_1-scores controls). Two findings come out of Table 1. First, applicants do better in subjects that will be a priority in P_2. This finding suggests that they apply to majors in which they have a comparative advantage and that we should control for P_1 scores in our P_2 regressions to control for such selection. Second, and importantly, women do not concentrate more than men or underperform in subjects that will become priorities

[13] We use quartic functions (e.g., $G(\widetilde{P1}_i^{s,g}) \equiv \sum_{j=1}^{4} \alpha_j(\widetilde{P1}_i^{s,g})^j$) in our main specifications.

[14] We omit year fixed effects as scores are normalized by subject and admission year. Our findings hold when using raw scores as dependent variables (Online Appendix Table O.11) regardless of the inclusion of year fixed effects (results not shown in the table).

in P_2. The 'Female × Future Priority' parameter estimates are statistically insignificant and small compared to the P_1 scores within-applicant s.d. (0.78). These findings suggest a similar role of comparative advantage when choosing majors, i.e., priority subjects, for male and female applicants, suggesting that selection into majors is not a major cause for concern when interpreting our main results.[15]

Table 1: Priority and P_1 Subject-Specific Performance

	(1)	(2)	(3)	(4)	(5)
Dependent variable: Phase 1 normalized subject-specific scores					
Female	-0.164***	-0.117***			
	(0.006)	(0.010)			
Future priority	0.307***	0.364***	0.329***	0.316***	0.339***
	(0.005)	(0.006)	(0.006)	(0.006)	(0.007)
Female × Future priority	0.022***	0.004	-0.012	-0.011	-0.007
	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)
ENEM	0.388***	0.387***			
	(0.003)	(0.003)			
$\bar{R}^2$	0.176	0.181	0.300	0.305	0.305
Number of observations	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes
ENEM × Future Priority	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_1 subject-specific scores normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Future priority' is a dummy indicating if the subject will be a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Future Priority' is a quartic function for the interactions between the relative ENEM performance and the future priority subject dummy. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

5 Do Women Underperform in Priority Subjects?

Table 2 presents results from estimating equation (5), imposing a common β_4 across subjects. In all specifications, we cluster our standard errors at the applicant level. In column (1), we look at the overall gender difference in performance, controlling for overall ability. Our

[15]We reestimate this regression for all applicants, including those who did not pass P_1, in Online Appendix Table O.6. For that sample, we find a gender gap similar to our main results for P_2. In Online Appendix Table O.7, we focus on those applicants who did not pass P_1 and split them by ENEM quintiles. The results show that a gender gap arises primarily in the low-middle part of the ENEM distribution—the gender gap is small and statistically insignificant for individuals in the highest quintile of the ENEM distribution.

measure of ability, ENEM, looks like a good predictor of applicants' performance. A one-standard-deviation increase in relative ENEM performance ($\widetilde{ENEM}_i^g$) is associated with a 0.54 s.d. increase in performance (with a t-statistic over 100). Note that when we control for $\widetilde{ENEM}_i^g$, the 'Female' coefficient estimate captures the gender gap in non-priority-subject performance emerging from two sources: the part that is due to the gender gap in average ENEM performance, and the part that is unexplained by ENEM.

Table 2: Priority Subjects and Gender Performance Gap

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female	-0.211***	-0.100***					
	(0.006)	(0.008)					
Priority	0.491***	0.591***	0.553***	0.553***	0.591***	0.524***	0.539***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)
Female × Priority	0.003	-0.049***	-0.062***	-0.063***	-0.055***	-0.054***	-0.053***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
ENEM	0.542***	0.540***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.354	0.364	0.595	0.598	0.598	0.625	0.625
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

The specification in column (1) of Table 2 does not attempt to control for applicants' selection into majors other than through a linear control for overall relative ability. Since Online Appendix Table O.4 suggests gender differences in major selection, it is unlikely that the β_4 estimate in column (1) captures a causality link unless our measure of ability completely captures this selection. Therefore, the following specifications sequentially attempt to control for more complex gender/individual differences in major selection.

Column (2) includes subject fixed effects and female-subject interaction terms, allowing women to perform, on average, better (or worse) in different subjects. In this case, the 'Female' parameter captures the gender performance gap in biology. The 'Female × Priority' estimate is sizable as it represents about 8% of the within-applicant s.d. (0.62).

We introduce a more flexible way to capture overall ability in column (3) by dropping ENEM and replacing it with individual fixed effects. The main impact of using fixed effects instead of ENEM (column (3) versus (2)) is to increase the magnitude of our parameter estimate of interest to 10% of a within-applicant s.d. Since we do not control for ENEM or P_1 scores, column (3) estimates the impact of higher rewards using within-P_2 variation only, keeping the competition level and the competitors' pool constant.

In column (4), we add 'ENEM × Subject' fixed effects to allow for the impact of our ability measure to differ across subjects, and the coefficient estimates remain similar. In column (5), we add more covariates to control for major self-selection by interacting applicants' relative overall performance with the priority-subject indicator variable. These covariates are meant to capture major selection based on individual absolute advantages ($\mathbb{P}_i^s[\widetilde{\phi}_i^g]$ in equation (4)). The main parameter estimate decreases but still represents 9% of the within-applicant s.d.

Column (6) introduces a flexible (quartic) function of the applicant's subject-specific relative performance in P_1 to control for potential selection based on comparative advantage. Under this specification, the applicant's overall ability will be captured by the individual fixed effects, while her (additional) subject-specific ability will be captured by the quartic function in P_1 scores. The estimated coefficient of interest does not change significantly.

Finally, in column (7), we include covariates to further control for comparative advantage by interacting subject-specific performances with the priority-subject indicator variable. These variables intend to capture major selection based on comparative advantages ($\mathbb{P}_i^s[\widetilde{\omega}_i^{s,g}]$ in equation (4)). Despite controlling for overall and subject-specific ability fairly flexibly, we still find that women do not react as much as men when facing high versus low rewards.

5.1 Do our Findings Vary Across Subjects and Ability Levels?

The imposition of a common effect across subjects in Table 2 may seem restrictive, especially since our data suggest that women and men have different priority subjects and perform differently from one subject to another, even after controlling for ENEM and P_1 scores.

To investigate the potential heterogeneity in priority-subject effects across subjects, we estimate equation (5), allowing β_3 and β_4 to vary across subjects. Table 3 presents the results. We focus on specification (7), which contains our full set of controls. We observe large gender gaps in reaction to higher rewards (between -0.08 and -0.12, or 13% to 19% of

Table 3: Heterogeneity Across Subjects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female × Priority × Biology	0.039***	-0.034*	-0.006	-0.007	-0.001	0.008	0.005
	(0.014)	(0.018)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Female × Priority × Chemistry	-0.071***	0.108***	0.053***	0.036*	0.037*	0.033*	0.035*
	(0.019)	(0.023)	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Female × Priority × Geography	-0.093	-0.074	-0.100	-0.082	-0.101	-0.105	-0.102
	(0.069)	(0.071)	(0.067)	(0.067)	(0.067)	(0.065)	(0.065)
Female × Priority × History	-0.105***	-0.120***	-0.111***	-0.114***	-0.110***	-0.119***	-0.117***
	(0.024)	(0.029)	(0.026)	(0.026)	(0.026)	(0.025)	(0.025)
Female × Priority × Mathematics	-0.124***	-0.030	-0.077***	-0.074***	-0.072***	-0.087***	-0.082***
	(0.019)	(0.028)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)
Female × Priority × Physics	-0.258***	-0.129***	-0.103***	-0.102***	-0.099***	-0.111***	-0.105***
	(0.020)	(0.027)	(0.022)	(0.022)	(0.022)	(0.021)	(0.022)
Priority × Biology	0.645***	0.737***	0.378***	0.373***	0.402***	0.338***	0.355***
	(0.011)	(0.013)	(0.011)	(0.011)	(0.011)	(0.011)	(0.012)
Priority × Chemistry	-0.008	-0.141***	-0.182***	-0.201***	-0.203***	-0.178***	-0.179***
	(0.014)	(0.016)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Priority × Geography	0.154***	-0.043	0.571***	0.521***	0.533***	0.526***	0.520***
	(0.047)	(0.048)	(0.045)	(0.045)	(0.045)	(0.044)	(0.044)
Priority × History	0.026	-0.059***	0.581***	0.579***	0.577***	0.547***	0.541***
	(0.018)	(0.021)	(0.019)	(0.019)	(0.019)	(0.018)	(0.018)
Priority × Mathematics	-0.295***	-0.290***	0.220***	0.236***	0.239***	0.250***	0.240***
	(0.013)	(0.020)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
Priority × Physics	-0.127***	-0.167***	0.219***	0.235***	0.235***	0.223***	0.213***
	(0.014)	(0.019)	(0.016)	(0.016)	(0.016)	(0.015)	(0.015)
ENEM	0.537***	0.536***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.361	0.366	0.602	0.604	0.605	0.630	0.630
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Female	Yes	Yes	No	No	No	No	No
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include a gender dummy ('Female'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

a within-applicant s.d.) in geography (with a p-value of 0.119), history, mathematics, and physics. However, there are no gender gaps in reaction to higher rewards in biology, and there is a small female advantage in chemistry. Alternatively, Online Appendix Table O.27 presents results by exam day, and they align with those from Table 3. While all 'Female × Priority' interaction terms are negative, they are statistically insignificant in exam days 1 (Portuguese and biology) and 2 (chemistry and history).[16] We return to these findings when we discuss potential channels behind the observed gender gap in reaction to higher rewards.

Next, we assess whether the impact of higher rewards on the gender performance gap varies with applicant ability. We interact 'Female × Priority' with ENEM relative performance and replace the quartic function of 'ENEM × Priority' with a linear one to more clearly observe trends in the gap as ENEM scores change.

Table 4 indicates that the impact of higher rewards on the gender performance gap grows with applicants' relative ENEM performance. At the mean ENEM score, the effect is similar to that in Table 2 (-0.058 vs. -0.053). For men, higher ENEM scores amplify the performance difference between priority and non-priority subjects, with a one-standard-deviation increase in ENEM improving performance on priority subjects by 0.009 s.d. more than for men at the mean. For women, this difference is negligible (0.010-0.009), and the 'Female × ENEM × Priority' coefficient has a p-value of 0.104. As a result, the gender performance gap becomes increasingly in favor of men as we compare higher-ENEM applicants, with the gap in reaction to higher rewards increasing to 0.068 s.d. (11% of the within-applicant s.d.) for those one s.d. above the mean. Given UNICAMP's competitive admissions, these findings suggest that gender differences in response to higher rewards may affect the gender composition of admitted students.

5.2 Robustness Checks

We first assess the robustness of our results by excluding medicine applicants in Online Appendix Tables O.8 and O.9. Biology and chemistry—the two subjects where we do not observe a gender gap in response to higher rewards—are also the priority subjects for medicine majors at UNICAMP and FAMERP, the most popular and competitive majors at UNICAMP. Restricting the sample increases the β_4 estimate, indicating that female applicants' performance is 0.093 s.d. lower (15% of the within-applicant s.d.). We also find that, in the absence of medicine applicants, women perform slightly worse in biology when it is a priority subject (0.037 s.d., statistically significant at 5%) but relatively better in chemistry as a priority subject (0.065 s.d., also significant at 5%).

[16] Here, we include Portuguese, but results are similar if we focus on the six subjects from our main analysis.

Table 4: Heterogeneity Across Academic Ability

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable: Phase 2 normalized subject-specific scores						
Female	-0.210***	-0.100***				
	(0.006)	(0.008)				
Priority	0.491***	0.590***	0.551***	0.554***	0.492***	0.512***
	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)
Female × Priority	0.000	-0.051***	-0.060***	-0.063***	-0.060***	-0.058***
	(0.007)	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)
Female × ENEM × Priority	-0.005	-0.008	-0.026***	-0.007	-0.012*	-0.010
	(0.007)	(0.007)	(0.007)	(0.007)	(0.006)	(0.006)
Female × ENEM	0.019***	0.021***				
	(0.007)	(0.007)				
ENEM × Priority	0.039***	0.032***	0.027***	-0.014***	-0.001	0.009*
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
ENEM	0.523***	0.523***				
	(0.005)	(0.005)				
$\bar{R}^2$	0.354	0.364	0.595	0.598	0.624	0.624
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Our main specification excludes applicants' performance in Portuguese in P_2/essay in P_1, in which women perform better than men (see Online Appendix Table O.5). Including these subjects in our model increases the magnitude of our coefficient estimate of interest (Online Appendix Table O.10). The use of normalized scores as dependent variables is not driving our results, as replacing them by P_2 raw scores (Online Appendix Table O.11) or scores normalized by subject-year-gender (Online Appendix Table O.12) does not affect our conclusions. In addition, allowing the impact of P_1 on P_2 scores to differ across subjects and gender in Online Appendix Table O.13 only slightly changes our main estimate to 7% of the within-applicant variation. We also use the difference between the P_2 and P_1 normalized scores as the dependent variable and estimate our model without controls for $G(\widetilde{P1}_i^{s,g})$ as in

Cai et al. (2019) and Schlosser et al. (2019). In Online Appendix Table O.14, we show that our main estimates are very close to those in Table 2 once we control for subject-gender fixed effects.[17] Last, in Online Appendix Table O.15, we replace the quartic function of subject-specific P_1 scores with interaction terms of quartic functions of all P_1 scores (in biology, chemistry, geography, history, mathematics, and physics) and subject fixed effects. This specification allows for all subject P_1 scores to affect each subject P_2 performance and to do so differently across P_2 subjects. Allowing for such interactions between P_1 and P_2 scores does not affect our coefficient estimate of interest: the gender gap still represents 8.4% of a within-applicant s.d.

5.3 Alternative Explanations

The exam structure and its competitive nature rule out a few channels, like men not caring about non-priority subjects (admission is competitive) and applicants' reactions to their performance in other subjects (applicants do not know their rank before the end of the admission process). Our data also allow us to exclude other potential channels:

Can results be explained by priorities of second and third choices?
We do not observe gender performance gaps in priority subjects linked to applicants' second and third choices (Online Appendix Table O.16), indicating that women are not internalizing more priority subjects than men.

Do women do relatively worse on more difficult questions?
Online Appendix Table O.17 shows that the gender gap changes slightly in favor of women on difficult priority-subject questions (e.g., +0.025 (0.176 − 0.151) in column (7)), and the impact of higher rewards on the gender performance gap comes mainly from the reaction to more straightforward priority-subject questions.[18]

Can women's capacity to sustain performance during long exams explain our results?
Online Appendix Table O.21 shows that while men's performance in priority subjects worsens as they progress through the exam, women's relative performance remains unchanged. This finding aligns with previous research (e.g., Balart and Oosterveen, 2019). Additionally,

[17] Since we control for P_1 in our main specifications, estimating our model in difference without controlling for P_1 performance is equivalent to imposing $G(\widetilde{P1}_i^{s,g}) = \widetilde{P1}_i^{s,g}$ in equation (5). The standard deviation of the difference between the normalized P_2 and P_1 scores is slightly below one (0.959). Therefore, in terms of standard deviations, our estimates are even closer than Online Appendix Table O.14 suggests.

[18] We follow Iriberri and Rey-Biel (2019) and classify each question as difficult if the average score is below the median for that subject. The results are similar if we define difficulty by gender (see Online Appendix Table O.18). As robustness checks, we use very difficult questions (below the bottom quartile) and the most difficult question, and our results remain unchanged (see Online Appendix Tables O.19 and O.20).

Online Appendix Figure O.4 shows a gender gap in favor of men across all question orders, all being significant at a 10% level except for one.

Can an information channel be behind our results?
In Online Appendix Tables O.22-O.26, we show results similar to our main ones in subsamples that potentially have distinct information levels about the admission exam: whether they are taking the UNICAMP exam for the first time, if they attended a preparatory course, whether they attended high school in the Campinas metropolitan region, whether they attended a public or private high school, and if at least one parent has a higher education degree.

6 Mechanisms

This section inquires into channels that could explain our main findings. We start by examining whether the gender performance gap is due to test-day strategies or exam preparation between P_1 and P_2. Then, we leverage the richness of our data and analyze gender performance differences across exam subjects and at the question level to examine the plausibility of gender disparities in exam strategies as an explanation for our findings.

6.1 Can Test-Day Strategies Be Behind our Findings?

We analyze the daily performance of test-takers and compare applicants with a specific subject as a priority and those with a different priority subject on the same day relative to applicants who did not have either subject as a priority on that day. If exam preparation fully explained the gender gap, applicants with a different priority on the same day would not underperform compared to those with no priority subject. Instead, lower performance in such cases suggests that test-day strategies may contribute to performance differences.

Online Appendix Table O.28 shows results for men and women separately on this subject day-by-day specification.[19] Female and male applicants do better in a subject when it is the only priority discipline on that day. While this could reflect a test-day strategy, we cannot rule out that part of our estimated effects is due to the applicant selection into priority subjects. Indeed, a drawback of estimating subject-by-subject performance gaps is that we cannot control for individual fixed effects. Still, we find that the impact of having a subject as a priority for women is smaller than for men, except in chemistry and geography.

[19]We ran an alternative day-by-day specification, controlling for the full set of P_1 scores instead of the subject-specific P_1 scores. The results for women (men) are presented in Online Appendix Table O.29 (O.30), and gender differences in coefficient estimates are shown in Online Appendix Table O.31. The results in Online Appendix Tables O.28 and O.31 lead to the same conclusion.

Interestingly, we find a decrease in performance for most subjects when the other subject is a priority relative to applicants who have neither subject as a priority. Again, we cannot completely rule out the role of selection in those estimates. In particular, having biology and chemistry as priorities is not associated with a decreased performance in Portuguese and history, respectively. In all likelihood, this is due to medicine applicants, who have biology and chemistry as priority subjects, being stronger than other applicants. Indeed, Online Appendix Table O.32 excludes medicine applicants and shows that coefficient estimates are always negative when the other subject is a priority discipline in this restricted sample. Finally, reproducing the same table with the number of attempted questions as dependent variables in Online Appendix Table O.33 provides further evidence that applicants may be reallocating time and attention towards priority subjects during the exam. Indeed, having another subject as a priority is associated with a lower number of attempted items in a non-priority subject relative to having no priority on the day. As before, the results are even clearer if we exclude medicine applicants from our sample in Online Appendix Table O.34.

6.2 Do Men and Women Adopt Different Exam Strategies?

The 2001 and 2002 admission data distinguishes zero scores representing omitted questions from those derived from attempted questions with a wrong answer. Column (1) of Table 5 suggests that women leave relatively more questions blank when rewards are higher (the estimate represents a 13% increase relative to the average number of omitted questions). However, column (2) suggests that higher rewards lower women's number of attempted questions with wrong answers relative to men's. Finally, treating omitted questions as zeros, we observe a smaller effect of higher rewards on the gender gap in zeros (column (3)), corresponding to a 2% increase. Even in our no-penalty setting, women are more likely than men to skip priority-subject questions when unsure of the answer, as in Iriberri and Rey-Biel (2021). Since the exam does not penalize incorrect answers more than omissions, attempting to answer is a dominant strategy if time is not a constraint.

To investigate how much of the priority-subject performance gender gap can be explained by the decision to skip questions, we use an Item Response Theory (IRT) Graded Response Model to estimate each applicant's predicted score on an omitted question based on their subject-specific ability and the question's difficulty level. We estimate IRT models for each (subject-year) exam jointly for men and women.

Online Appendix Table O.35 suggests that if applicants had answered all questions and achieved their predicted score, the gender gap in response to priority subjects would have been 4.5% of a s.d. instead of 5.0 (see Online Appendix Table O.36 for our main regressions

Table 5: Priority Subjects, Omitted Questions and Zeros (2001-2002)

	Omissions	Zero scores	Zero + Omissions
	(1)	(2)	(3)
Priority	-0.524***	-0.573***	-1.097***
	(0.019)	(0.021)	(0.025)
Female × Priority	0.089***	-0.044*	0.046*
	(0.020)	(0.023)	(0.027)
Mean dependent variable	0.75	2.02	2.76
Std.dev dependent variable	1.54	2.08	2.73
$\bar{R}^2$	0.510	0.542	0.659
Number of observations	98,304	98,304	98,304
Number of applicants	16,384	16,384	16,384
Subject FE	Yes	Yes	Yes
Subject-gender FE	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes
ENEM × Subject FE	Yes	Yes	Yes
ENEM × Priority	Yes	Yes	Yes
Phase 1 scores	Yes	Yes	Yes
Phase 1 scores × Priority	Yes	Yes	Yes

Notes: Our sample includes 2001-2002 applicants who attended P_1 and P_2 for admission. We focus on the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). The dependent variables are the number of omitted questions (column (1)), the number of zero scores on attempted questions, excluding omissions (column (2)), and the total number of zeros (column (3)), obtained in a given P_2 subject. 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a standard deviation (s.d.) of one for each year. 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

using the 2001-2002 sample). Thus, while the omission pattern plays a role, it cannot account for a considerable proportion of the gender gap in reaction to higher rewards.

The previous literature documents that men tend to be more overconfident than women (Niederle and Vesterlund, 2007; Croson and Gneezy, 2009; Bertrand, 2011), especially in male-dominated fields (Linn et al., 1987; Bordalo et al., 2019). This omission behavior could be linked to gender differences in confidence when answering questions (Bucher-Koenen et al., 2021). In Online Appendix Table O.37, we allow the impact of higher rewards on the number of omitted questions to vary across subjects. When rewards are higher, women tend to omit more questions in mathematics and physics (with a p-value of 0.106) and possibly geography, although its coefficient is imprecisely estimated. These results align with our findings in Table 3 (except for history), where the impact of higher rewards on the gender performance gap is stronger for geography, history, mathematics, and physics. Online Appendix Table O.4 shows that more women select biology, chemistry, and history

as priority subjects, while more men choose mathematics, physics, and geography. These patterns suggest that the omission pattern in priority subjects could relate to confidence, especially in male-dominated subjects.

Next, we investigate whether women distribute their effort more evenly across subjects than men in P_2 by using the performance coefficient of variation (CV) for each applicant over all eight P_2 subjects as a dependent variable. Conditional on ENEM, female applicants seem to equalize their effort across subjects more than men, incurring a lower CV, as shown in Table 6. Moreover, the (negative) correlation is more pronounced for higher-ability women, the group with the largest gender performance gap in priority subjects, as shown in Table 4.

Table 6: Coefficient of Variation across Subjects

	(1)	(2)	(3)
Dependent variable: Phase 2 score coefficient of variation			
Female	0.031***	-0.005***	-0.005***
	(0.002)	(0.001)	(0.001)
Norm. ENEM scores		-0.083***	-0.077***
		(0.001)	(0.001)
Female × Norm. ENEM scores			-0.013***
			(0.002)
Mean dependent variable	0.33		
Std.dev dependent variable	0.16		
Number of applicants	36,933	36,933	36,933
Year dummies	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is the applicant's performance coefficient of variation (CV) across P_2 subjects. We include foreign language and Portuguese scores to compute the CV. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a standard deviation of one for each year. Heteroskedasticity-robust standard errors are in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Women also tend to have less within-subject performance variation than men. To measure this, we use the above-mentioned IRT Graded Response Model to predict the score for each question, taking into account the difficulty of the question and the applicant's ability in that subject. We define the difference between each question's actual and predicted scores as the 'IRT residual'. By calculating the standard deviations of these IRT residuals, we can quantify how much actual performance differs from predicted performance for each individual.

Online Appendix Figure O.5 displays the distributions of IRT residuals' standard deviations. The distributions are similar for both genders in non-priority subjects. However, men show greater variation than women in priority subjects compared to their predicted scores. Thus, we observe a consistent pattern across and within subjects, with women demonstrating less performance variation than men, especially in priority subjects.

7 Does the Gender Gap in Exam Performance Matter?

7.1 University Admission

Our results show that women's performance improves less than men's in response to larger rewards, with this gap widening as ability increases. While these findings suggest that the gender performance gap may affect university admissions, the impact depends on the proportion of female applicants and their performance distribution within majors.

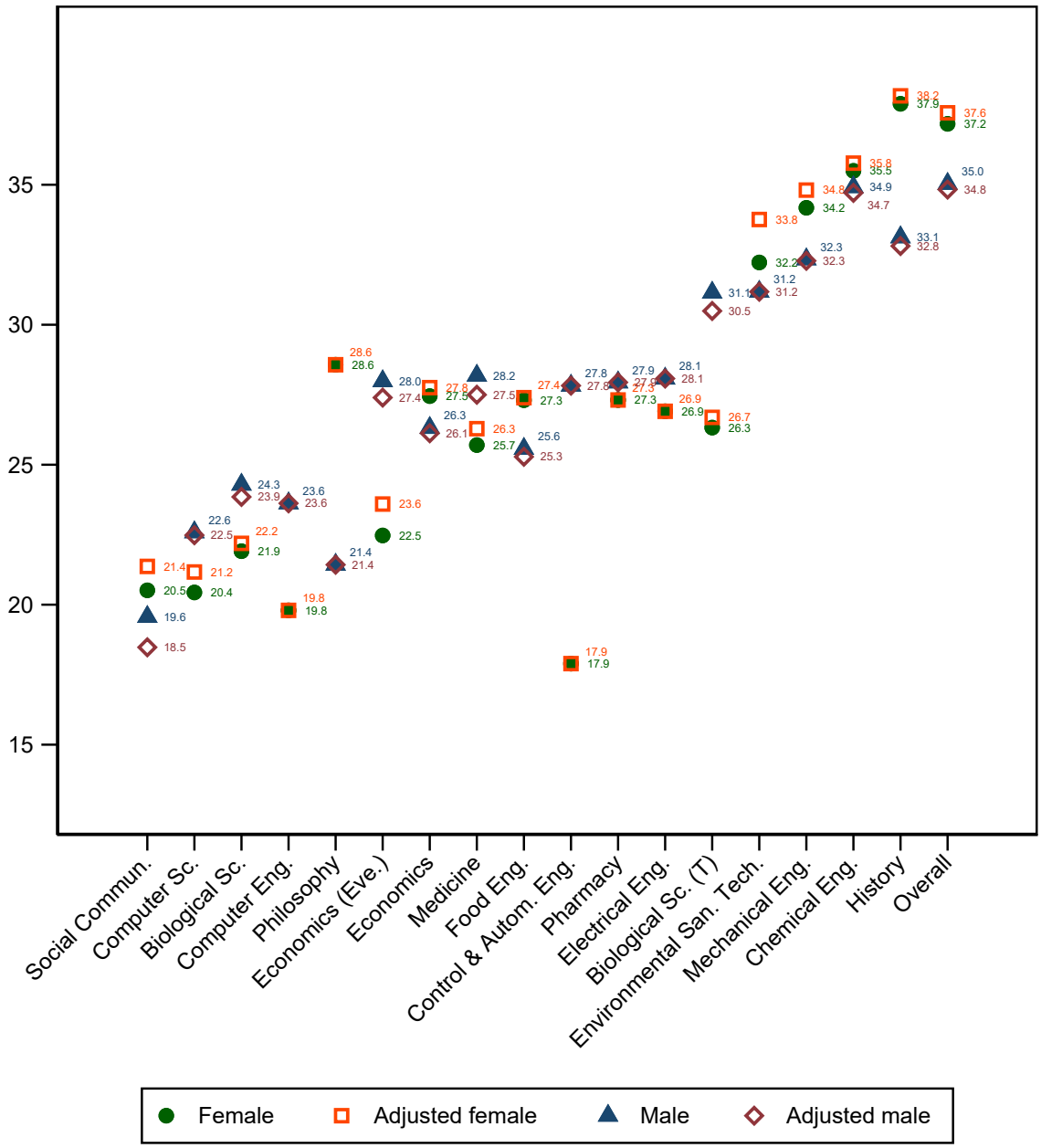
We perform a counterfactual exercise to assess the potential relevance of gender differences in reaction to increased rewards in explaining university admission. In a nutshell, we simulate admissions by considering applicants' first-choice major and 'eliminating' the performance gender gap in priority subjects. We then compare the simulated and actual admissions.

More precisely, we first run a regression to obtain the 'Female × Priority' coefficient estimate in a specification analogous to column (7) of Table 2, where we replace the normalized subject-specific scores by the raw P_2 scores. Next, we adjust female applicants' scores in priority subjects using the 'Female × Priority' coefficient estimate to eliminate the gender gap in priority subjects. Spending more time on priority subjects can reduce women's time on other questions. Therefore, we redistribute the gender gap in priority subjects proportionally across non-priority subjects.[20] Then, we simulate admissions based on the adjusted scores, taking the total number of available slots per major as given.

Figure 1 presents the actual and adjusted admission rates for female and male applicants, considering all applicants attending the admission exam. Overall, we find a modest impact on the female admission rate, equivalent to a 1.1% increase relative to the actual female admission rate. The corresponding decrease in the male admission rate is 0.6%. However, the effect is more prominent for competitive majors with lower-than-average admission rates (those presented in Figure 1). For economics (evening), the female admission rate would increase by around 4.9%. In contrast, the admission rate for men would decrease by 2.1%, thereby reducing the gender admission rate gap by 1.7 percentage points. We also see substantial effects in medicine, with a 2.3% increase in the female admission rate and a 2.5% decrease in the male admission rate, effectively halving the gender admission rate gap (from 2.5 to 1.2 percentage points). Therefore, our estimated gender performance gap is large enough to impact admission to some competitive majors.

[20] We reduce female performance in non-priority subjects by a proportional equivalent to the gender gap in priority subjects $\left(\frac{\#priority}{6-\#priority}\right)$. Alternatively, we assume women's performance in non-priority subjects is unaffected. We interpret this exercise, shown in Online Appendix Figure O.6, as an upper bound of the impact on admission rates.

Figure 1: Admission Rates for Applicants in P_2 with Actual and Adjusted Scores



Notes: The figure presents admission rates for male and female applicants in our sample, including applicants who attended P_1 and P_2 for admission between 2001 and 2004, representing approximately 30% of UNICAMP applicants. We show the overall admission rate and those for majors with lower-than-average rates. We group medicine UNICAMP and FAMERP, as these majors are considered jointly in the admission process. We estimate the 'Female × Priority' coefficient using a specification analogous to column (7) in Table 2, but where the response variable is the raw score. The adjusted male and female admission rates result from subtracting the 'Female × Priority' coefficient for female applicants' priority subjects. We reduce female performance in non-priority subjects by a proportional equivalent of the gender gap in priority subjects $\left(\frac{\#priority}{6-\#priority}\right)$.

7.2 Labor Market Outcomes

A key motivation in the literature on gender differences in behavior in exam environments is the potential to explain part of the gender wage gap, particularly at the top of the wage distribution. However, data limitations have hindered most studies from directly connecting these findings to labor market outcomes.

Our data allow us to assess whether gender differences in response to priority subjects help explain the gender wage gap. To quantify this, we first estimate our main specification (column (7) in Table 2), excluding the 'Female × Priority' interaction, and obtain the residuals.[21] Next, we calculate the difference in average residuals between priority and non-priority subjects for each applicant. We denote this difference 'relative priority performance' as it captures whether an individual performs particularly well in priority subjects. Finally, we normalize this difference over all applicants to have a mean of zero and a s.d. of one. Online Appendix Figure O.7 shows the distributions of the relative priority performance measure for our main wage sample by gender. The distribution for male applicants is slightly shifted to the right compared to that of women. While the distributions have similar shapes, a Kolmogorov-Smirnov test rejects their equality.

We estimate standard wage regressions to investigate whether the gender pay gap shrinks significantly once we control for our relative priority performance measure. Importantly, in these wage regressions, we include both P_2 applicants who were admitted and those who were not. Our main results focus on applicants' labor market outcomes seven to 12 years after the admission exam to give applicants enough time to enter the labor market fully—the expected duration of undergraduate programs at UNICAMP is between four to six years, and we also try to avoid differences in selection into formal employment due to parenting.[22]

Panel A of Table 7 shows how the gender wage gap changes when we include the relative priority performance. Column (1) shows a baseline gap of 26 log points when we control only for exam-year fixed effects. Column (2), which controls for relative priority performance, reveals that applicants who do better than expected on priority subjects earn more. A one s.d.

[21] As robustness checks, we use alternative P_2 score regressions to construct residuals. First, we use residuals from column (7) in Online Appendix Table O.15, which controls for 'Phase 1 scores × Subject FE' (Online Appendix Table O.38). Second, we estimate a simpler model controlling for P_1 scores linearly (Online Appendix Table O.39). Next, we estimate our main specification excluding the 'Female × Priority' interaction and the 'ENEM × Priority' and 'Phase 1 scores × Priority' polynomials (Online Appendix Table O.40). We also construct residuals by estimating our main specification and adding the 'Priority' coefficient estimates for priority subjects for male students and the 'Priority' and 'Female × Priority' coefficient estimates for female students (Online Appendix Table O.41). Lastly, we use residuals from the day-by-day specifications discussed in Subsection 6.1 (Online Appendix Tables O.42 and O.43). Regardless of how we estimate our residuals, the wage regression results are similar once we control for intended major fixed effects.

[22] Our results are similar if we look at labor market outcomes six to 14 years (Online Appendix Table O.46) or six to nine years (Online Appendix Table O.47) after the exam.

increase in relative priority performance is associated with 1.3% higher wages (statistically significant at a 1% level). Although the estimate may appear small, it is important to note that our performance regressions include individual fixed effects, and are therefore excluded from the residuals. Strikingly, controlling for priority-subject performance barely affects the gender gap. As a comparison, column (3) suggests that controlling for academic ability (i.e., ENEM) reduces the gender gap by more than a quarter. Adding our priority-subject performance control on top of ENEM (column (4)) also barely affects the wage gap.

Moving to columns (5) to (8) highlights the most critical set of variables in explaining the gender wage gap. Simply controlling for (intended) major fixed effects reduces the gender wage gap by close to 60% (column (5) versus (1)). When applying to UNICAMP, women tend to select majors that pay systematically less than men. Within major choices, one's priority-subject relative performance is associated with a larger wage increase (1.9–2.0%), suggesting some major-choice segregation based on majors' expected average priority-subject relative performance. While prior academic ability still contributes to explaining the gender wage gap within major choices, major selection remains the most relevant element in understanding this gap. Panel B repeats the exercise presented in Panel A using the log of the maximum annual wage as the dependent variable (the maximum wage could be a better measure of career progression than the average) and shows similar results.

Online Appendix Table O.48 suggests that relative priority performance is positively associated with formal employment participation when we do not control for majors, which could affect the interpretation of our wage regression results. Indeed, part of the correlation between relative priority performance and wages could come from the selection into formal employment. Note, however, that the coefficient estimates for relative priority performance are small—a one s.d. increase in performance is associated with a 0.7-0.8 percentage points (or roughly 1%) higher participation rate—and it does not explain much of the gender gap in employment participation. Nevertheless, we check the robustness of our findings in Table 7 using a bounding exercise used by Carrell et al. (2018) in a similar scenario. In essence, the exercise suggests randomly dropping from our sample applicants with higher than the median relative priority performance sequentially until the relative priority performance parameter estimate in the participation regression is close to zero and estimating our wage regressions using the trimmed samples. We do this separately for each specification.[23] By iterating this process, we obtain a distribution of estimates of interest approximating the range of potential estimates we would obtain under employment-participation differences related to

[23]For specifications in Table 7 that do not control for relative priority performance, we use the trimmed sample from the next specification to estimate the gender wage gap (e.g., we use the same trimmed sample in column (1) and column (2)). We present more details on the trimming exercise in Online Appendix O.3.

Table 7: Log (Annual Wages) 7 to 12 Years After the Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (7-12 years after admission exam)								
Female	-0.264***	-0.264***	-0.190***	-0.189***	-0.106***	-0.107***	-0.082***	-0.082***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.013***		0.012***		0.019***		0.020***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.166***	0.166***			0.099***	0.099***
			(0.004)	(0.004)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.326	10.326	10.326	10.326	10.326	10.326	10.326	10.326
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (7-12 years after admission exam)								
Female	-0.262***	-0.261***	-0.186***	-0.186***	-0.112***	-0.112***	-0.088***	-0.089***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.012***		0.011**		0.019***		0.019***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.169***	0.169***			0.095***	0.095***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.628	10.628	10.628	10.628	10.628	10.628	10.628	10.628
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

priority-subject performance of the same magnitude we find in Online Appendix Table O.48.

Online Appendix Table O.49 presents the average estimates for our coefficient of interest along with 95% confidence intervals. The results are very similar to those presented in Table 7, suggesting that while relative priority performance might increase formal employment participation, the relation is not strong enough to impact the interpretation of our wage regression results. In particular, the confidence intervals on the gender wage gap from one column to another rule out sizeable changes in the gap when we control for relative priority performance.

The results presented in Table 7 can be seen as a Blinder-Oaxaca decomposition where the base parameters on the explained difference are those from the pooled regression (i.e., those in Table 7). Therefore, in the case of relative priority performance, its base parameter

is a weighted average of the female and male parameters. If the relative priority performance parameters are similar across genders, the choice of the base parameter will not affect the share of the gender gap explained by the relative priority performance measure.

However, Table 8 suggests that the relative priority performance parameters vary significantly across genders. When not controlling for major choice, the relative priority performance parameter estimates for women are close to zero and statistically insignificant, while those for men are close to 2% (roughly 50% larger than in the pooled regressions). The results indicate that women may not be entering labor market positions where our measured relative priority performance is valued. Gender segregation across majors seems essential in understanding why the relative priority performance matters less for explaining women's wages. Once we control for (intended) major choice, the female relative priority performance parameter estimates become much larger and statistically significant at 10%. Those for men also increase, but not as much. Thus, women seem to choose majors for which the capacity to perform well on rewarding tasks is not as important as majors chosen by men.

Table 8: Average Annual Wages between 7 and 12 Years After Admission Exam by Gender

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Women						
Relative priority performance	0.004		0.004	0.014*		0.013*
	(0.007)		(0.007)	(0.007)		(0.007)
Norm. ENEM scores		0.171***	0.171***		0.103***	0.103***
		(0.006)	(0.006)		(0.008)	(0.008)
Number of observations	12,631	12,631	12,631	12,631	12,631	12,631
Mean dependent variable	10.062	10.062	10.062	10.062	10.062	10.062
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	Yes	Yes	Yes
Panel B: Men						
Relative priority performance	0.019***		0.018***	0.024***		0.025***
	(0.006)		(0.006)	(0.006)		(0.006)
Norm. ENEM scores		0.161***	0.161***		0.094***	0.094***
		(0.006)	(0.006)		(0.008)	(0.008)
Number of observations	17,275	17,275	17,275	17,275	17,275	17,275
Mean dependent variable	10.326	10.326	10.326	10.326	10.326	10.326
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average annual wage between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

We conduct a Blinder-Oaxaca decomposition using men's parameters as the base to investigate whether women's relative priority performance could explain a larger portion of the wage gap if they had the same 'return' to relative priority performance. Online Appendix Table O.50 shows that while relative priority performance would explain more of the gender gap (between 0.001 and 0.002, or up to 0.8% of the gap) if the base parameters were men's instead of those from the pooled regressions, gender differences in relative priority performance remains far from being able to explain much of the wage gap.

Finally, to analyze how relative priority performance correlates with wages over the entire distribution, we present quantile regression results for the 10^{th}, 25^{th}, 50^{th}, 75^{th}, and 90^{th} percentiles in Online Appendix Table O.51. As in our main results, relative priority performance positively correlates with wages all over the distribution, although the coefficient estimates peak at the 25^{th} percentile. However, as in our main wage regressions, controlling for the relative priority performance does not materially affect the estimated gender wage gap for any of the quantile regressions.

In the end, our labor market analysis suggests that while being able to prioritize more rewarding tasks is positively correlated with future earnings and formal employment participation, gender differences in prioritizing rewarding tasks do not seem to explain much of the gender wage gap.

8 Conclusion

This paper provides evidence that women and men react differently to higher task rewards, proposes channels through which this difference might operate, and whether it translates to the labor market. We observe men and women taking identical exams but with varying rewards for performance on different questions within exams. In our setting, some tasks are more rewarding than others, but no one assigns the task (applicants are free to put more effort into the more rewarding task than on the less rewarding one), and the agent's response to the higher-reward request is private. Therefore, there is no apparent external pressure to accept working on the less rewarding task, unlike in Babcock et al. (2017a,b). The exam structure, combined with the richness of our data, allows us to flexibly control for major-choice self-selection issues through applicant fixed effects and multiple subject-specific ability measures—something data rarely permit. Moreover, our data allow us to follow applicants in the formal labor market up to 14 years after the admission exam.

Our findings indicate that higher rewards boost performance for men more than for women, and this difference is more pronounced for higher-ability applicants. Women and men tend to adopt distinct approaches when uncertain about a question's correct answer.

Women become relatively more likely to omit questions when these questions are associated with priority subjects, while men are more likely to answer the questions but obtain a score of zero. Interestingly, the omission pattern emerges in male-typed subjects, suggesting the influence of gender-stereotyped beliefs (Coffman, 2014; Exley and Kessler, 2022). Moreover, women tend to spread their efforts more equally across subjects and within priority subject exams. Taken together, the pieces of evidence suggest that gender differences in confidence and exam strategy are behind our findings.

A counterfactual exercise suggests that the performance gap could impact admission rates in some majors, particularly competitive majors such as medicine and economics. Our evidence suggests that one way to increase female representation in such majors, while keeping in mind that some majors require specific skills (e.g., mathematics for economics), would be to remove or minimize the number of non-priority subjects in Phase 2, which could incentivize women, in particular, to focus more on the subjects that matter—such setting is already in place in one way or another at other top-ranked Brazilian universities.

Finally, our findings have long-term implications for understanding the relationship between exam performance and future wage outcomes. They suggest that, conditional on earlier test scores, applicants who perform better on priority subjects in their university entrance exam tend to earn higher annual wages in the formal labor market. Surprisingly, however, this does not appear to impact gender wage gaps in the labor market significantly. Therefore, our results cast doubt on whether gender differences in behavior in an exam environment can explain gender gaps in the labor market. On a more positive note, our results suggest that an apparent female disadvantage emerging from how university admission exams may be designed might not matter in the labor market.

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References

Adamecz, A. and Shure, N. (2024). The underconfidence wage penalty. Working Paper 17033, IZA Institute of Labor Economics.

Azmat, G., Calsamiglia, C., and Iriberri, N. (2016). Gender differences in response to big stakes. *Journal of the European Economic Association*, 14(6):1372–1400.

Babcock, L., Recalde, M. P., and Vesterlund, L. (2017a). Gender differences in the allocation of low-promotability tasks: The role of backlash. *American Economic Review*, 107(5):131–135.

Babcock, L., Recalde, M. P., Vesterlund, L., and Weingart, L. (2017b). Gender differences in accepting and receiving requests for tasks with low promotability. *American Economic Review*, 107(3):714–747.

Balart, P. and Oosterveen, M. (2019). Females show more sustained performance during test-taking than males. *Nature communications*, 10(1):3798.

Bertrand, M. (2011). New perspectives on gender. In Card, D. and Ashenfelter, O., editors, *Handbook of Labor Economics*, volume 4, chapter 17, pages 1543–1590. Elsevier.

Bertrand, M. (2018). Coase lecture: The glass ceiling. *Economica*, 85(338):205–231.

Blau, F. D. and Kahn, L. M. (2017). The gender wage gap: Extent, trends, and explanations. *Journal of Economic Literature*, 55(3):789–865.

Bordalo, P., Coffman, K., Gennaioli, N., and Shleifer, A. (2019). Beliefs about gender. *American Economic Review*, 109(3):739–773.

Bucher-Koenen, T., Alessie, R. J., Lusardi, A., and Van Rooij, M. (2021). Fearless woman: Financial literacy and stock market participation. NBER Working Paper 28723, National Bureau of Economic Research.

Buser, T., Niederle, M., and Oosterbeek, H. (2024). Can competitiveness predict education and labor market outcomes? Evidence from incentivized choice and survey measures. *Review of Economics and Statistics*. Forthcoming.

Cai, X., Lu, Y., Pan, J., and Zhong, S. (2019). Gender gap under pressure: Evidence from China's national college entrance examination. *Review of Economics and Statistics*, 101(2):249–263.

Carrell, S. E., Hoekstra, M., and Kuka, E. (2018). The long-run effects of disruptive peers. *American Economic Review*, 108(11):3377–3415.

Coffman, K. B. (2014). Evidence on self-stereotyping and the contribution of ideas. *Quarterly Journal of Economics*, 129(4):1625–1660.

Croson, R. and Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature*, 47(2):448–474.

Dahl, G. B. (2002). Mobility and the return to education: Testing a Roy model with multiple markets. *Econometrica*, 70(6):2367–2420.

Estevan, F., Gall, T., and Morin, L.-P. (2019). Redistribution without distortion: Evidence from an affirmative action program at a large Brazilian university. *Economic Journal*, 129(619):1182–1220.

Exley, C. L. and Kessler, J. B. (2022). The gender gap in self-promotion. *Quarterly Journal of Economics*, 137(3):1345–1381.

Gneezy, U., Niederle, M., and Rustichini, A. (2003). Performance in competitive environments: Gender differences. *Quarterly Journal of Economics*, 118(3):1049–1074.

Heckman, J. J., Urzua, S., and Vytlacil, E. (2006). Understanding instrumental variables in models with essential heterogeneity. *Review of Economics and Statistics*, 88(3):389–432.

Iriberri, N. and Rey-Biel, P. (2019). Competitive pressure widens the gender gap in performance: Evidence from a two-stage competition in mathematics. *Economic Journal*, 129(620):1863–1893.

Iriberri, N. and Rey-Biel, P. (2021). Brave Boys and Play-it-Safe Girls: Gender Differences in Willingness to Guess in a Large Scale Natural Field Experiment. *European Economic Review*, 131:103603.

Jurajda, Š. and Münich, D. (2011). Gender gap in performance under competitive pressure: Admissions to Czech universities. *American Economic Review: Papers and Proceedings*, 101(3):514–518.

Lee, D. S. (2009). Training, wages, and sample selection: Estimating sharp bounds on treatment effects. *Review of Economic Studies*, 76(3):1071–1102.

Linn, M. C., de Benedictis, T., Delucchi, K., Harris, A., and Stage, E. (1987). Gender differences in national assessment of educational progress science items: What does "I don't know" really mean? *Journal of Research in Science Teaching*, 24(3):267–278.

Morin, L.-P. (2015). Do men and women respond differently to competition? Evidence from a major education reform. *Journal of Labor Economics*, 33(2):443–491.

Niederle, M. and Vesterlund, L. (2007). Do women shy away from competition? Do men compete too much? *Quarterly Journal of Economics*, 122(3):1067–1101.

Niederle, M. and Vesterlund, L. (2010). Explaining the gender gap in math test scores: The role of competition. *Journal of Economic Perspectives*, 24(2):129–144.

Ors, E., Palomino, F., and Peyrache, E. (2013). Performance gender gap: Does competition matter? *Journal of Labor Economics*, 31(3):443–499.

Pope, D. G. and Sydnor, J. R. (2010). Geographic variation in the gender differences in test scores. *Journal of Economic Perspectives*, 24(2):95–108.

Reuben, E., Sapienza, P., and Zingales, L. (2015). Taste for competition and the gender gap among young business professionals. Working Paper 21695, National Bureau of Economic Research.

Schlosser, A., Neeman, Z., and Attali, Y. (2019). Differential performance in high vs. low stakes tests: Evidence from the GRE test. *Economic Journal*, 129(623):2916–2948.

Wieland, A. and Sarin, R. (2012). Domain specificity of sex differences in competition. *Journal of Economic Behavior & Organization*, 83(1):151–157. Gender Differences in Risk Aversion and Competition.

Wooldridge, J. M. (2005). Fixed-effects and related estimators for correlated random-coefficient and treatment-effect panel data models. *Review of Economics and Statistics*, 87(2):385–390.

Online Appendix (For Online Publication Only)

Exam Reward Structure, Gender Performance Gaps, and Labor Market Outcomes

Bruna Borges, Fernanda Estevan and Louis-Philippe Morin

O.1 UNICAMP Admission and ENEM

In this Online Appendix, we provide more detail on the UNICAMP admission exam for the majors we consider in our empirical analysis.

Admission to UNICAMP is determined by a university-specific entrance examination consisting of two sequential phases, P_1 and P_2. The registration takes place in September, applicants write P_1 in November, P_2 in January, and the academic year begins in late February. Phase 1 is a qualifying exam, and only applicants who pass P_1 (around 30% of applicants) will take the P_2 exam. Both phases of the UNICAMP admission exam consist of open-ended questions covering high school subjects. All exams are handwritten, closed-book, and anonymously graded. Both phases take place in several cities in schools and universities. P_1 usually takes place on a Sunday and P_2 over four consecutive days.

P_1 comprises 12 written-answer questions on biology, chemistry, geography, history, mathematics, and physics. Each question is worth 2.5 points (total of 30 points). The grading is based on a scale with 0.5-point increments. Applicants must also write an essay worth 30 points in P_1.[24] The P_1 exam lasts between 1.5 (minimum) and 4 (maximum) hours.

UNICAMP computes the applicants' P_1 score using two different formulas and selects the most favorable one for each applicant. The first formula sums the essay and the general question scores. In the second formula, the sum of the essay and general question scores receives a weight of 80%, and the applicant's ENEM score, an end-of-high-school exam score calibrated to a maximum score of 60, gets a weight of 20% (see more details on ENEM below). Thus, the maximum possible P_1 score is 60 points, under both formulas.

[24] In 2004, the maximum P_1 score was 120 points. Each question was worth five points, totalizing 60 points per subject. The essay was worth 60 points. Since the relative weights remained unchanged in 2004, this difference does not affect our analysis.

Applicants' P_1 score must be above a major-specific cutoff to qualify for P_2. The baseline cutoff score is 30 points (or 50% of the total 60-point Phase 1 score). However, UNICAMP adjusts the major-specific cutoff scores upward or downward to guarantee that the number of applicants per major in P_2 is between three and eight per available slot. The P_1 cutoff scores (grade of the last student admitted to Phase 2) and the list of candidates who passed P_1 are publicly released in December.

P_2 covers the same six high-school subjects plus Portuguese and a foreign language (English or French). There are 12 questions per subject, each with the same weight and worth 5 points (totaling 60 points per subject). For each question, the grading scale uses 0.5-point steps. P_2 is administered over four days (Day 1: Portuguese and biology; Day 2: chemistry and history; Day 3: physics and geography; Day 4: mathematics and English/French). Each day, applicants have between 1.5 (minimum) and 4 (maximum) hours to submit their answers for both subjects. All applicants write exactly the same exam, but depending on the applicant's major choice, one or two subjects are considered *priority subjects*, receiving a weight of two (instead of one) in the final score calculation.

The P_1 score and P_2 subject scores are standardized to have a mean of 500 and a standard deviation of 100. Until 2003, the standardization of P_2 exams was done separately for applicants of majors within four defined areas. From 2004 on, the standardization considered the grades of P_2 exams of all applicants who participated in the exam. In all admission years, the standardization of the P_1 scores only considers the scores of applicants who passed P_1.

An applicant's final admission score is the weighted average of her standardized: 1) P_1 score, with a weight of two; 2) P_2 priority-subject scores, each with a weight of two, and; 3) P_2 non-priority subject scores, each with a weight of one.

When registering for the admission exam, candidates can apply to up to three majors, indicating their first, second, and third choices. UNICAMP ranks applicants based on their final score and major choice. The allocation mechanism is a version of the Boston mechanism, which initially considers applicants who chose the major as their first choice before those who put it as their second or third option.

ENEM

ENEM (*Exame Nacional do Ensino Médio*) is a national end-of-high-school exam used by some universities as their only admission criterion, or as part of their admission process (like UNICAMP). Between 2001 and 2004, ENEM comprised 63 multiple-choice questions based on high-school subjects and an essay. UNICAMP considers only the ENEM score based on the multiple-choice questions. Applicants must have taken the ENEM in the previous two years and provided UNICAMP with their ENEM ID to be eligible for the

second formula. The formula that considers the applicant's ENEM score is advantageous for 85% of applicants. In our analysis, we drop applicants without a valid ENEM score. Around 96% of individuals who passed P_1 (the individuals we focus on in our empirical analysis) submitted a valid ENEM score.

O.2 Wage regressions and the RAIS data

In our wage regressions, we must restrict our sample to applicants for whom we can observe formal labor market outcomes during the analysis period, which covers 81% of the individuals included in our exam-performance regressions.

Unmatched individuals may be out of the labor force, unemployed, working as entrepreneurs, or in the informal labor market. While Brazil has a large informal labor market, this is unlikely to be a major issue for our sample of UNICAMP applicants who, for the vast majority, will end up with a post-secondary degree. Other reasons for being unmatched include emigration, working abroad, or death. However, the most plausible explanation is that these applicants are unemployed or out of the labor force. As a comparison, the formal employment rate in the state of Sao Paulo was 64% for college graduates. We explore the relationship between formal employment participation, i.e., the likelihood of being matched to RAIS data, gender, and relative priority performance in Table O.48.

We have access to RAIS data between 2002 and 2018. Since the most recent cohort of applicants took the admission exam in 2004, we can track their labor market outcomes for up to 14 years after the exam. We use the year applicants wrote the exam as the reference period because graduation dates are not available for those not admitted to UNICAMP.

We set 12 years after the exam as the upper bound for our main analysis. Online Appendix Table O.45 shows that even when accounting for major choice, women's formal employment participation declines in the 13^{th} and 14^{th} years after the exam, unlike the period from seven to 12 years, when participation rates remain more stable. The observed gender gap in formal employment participation around 13 to 14 years after the admission exam aligns with a period in which women's overall labor force participation declines, coinciding with an increase in maternity leaves.

In principle, some applicants may not have graduated from university. However, RAIS data suggests that most applicants in our sample obtained a higher education degree, regardless of whether they were admitted to UNICAMP. During the analysis period (seven to 12 years after the exam), over 93% of applicants had earned a higher education degree from some institution. Online Appendix Table O.44 presents regressions where the dependent variable is a binary indicator equal to one if the applicant obtained a higher education

diploma and zero otherwise. The results indicate that women and applicants with higher ENEM scores are slightly more likely to earn a higher education degree. Additionally, a one-standard-deviation increase in relative priority performance is associated with a three percentage-point increase in the likelihood of earning a higher education degree within seven to 12 years after the exam. While this effect is modest, relative priority performance could influence wages through a higher probability of degree completion.

We measure wages in 2002 Brazilian *reais* in all regressions. Since we use a generated regressor, we compute standard errors by bootstrapping the whole estimation procedure (i.e., estimating the P_2 performance regressions and the wage regressions). Standard errors presented in Table 7 are based on 999 applicant-level cluster-bootstrap replications.

O.3 Trimming Exercise

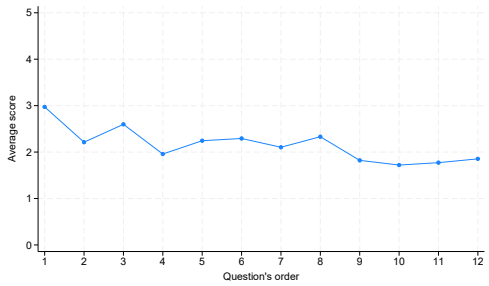
We perform a bounding exercise proposed by Carrell et al. (2018) to examine if the results presented in our wage regressions could be influenced by selection into formal employment. The exercise is inspired by Lee (2009)'s bounds, adapted to settings where the treatment measure is continuous. In our case, the 'treatment' variable will be the relative priority performance.

To bound their effect of interest, Carrell et al. (2018) drop from their sample individuals with lower than median exposure from disruptive peers, as exposure to disruptive peers is negatively correlated with being observed in the labor market. In our case, the relative priority performance is positively related to formal employment participation. Thus, we drop from our sample applicants with higher than the median relative priority performance. We run separate procedures for columns (2),(4),(6), and (8) from Table O.48. We randomly and incrementally drop applicants with priority performance above the median for each of these columns until the point estimate for relative priority performance is close to zero (magnitude smaller than 0.001). After dropping the observations, we estimate and store the coefficient estimates from our wage regressions. By iterating 500 times, we obtain a distribution of the estimates of interest approximating the range of potential estimates we would get under differences in formal employment participation related to priority-subject performance of the same magnitude we find in Table O.48. Note that, given that we do not control for the relative priority performance in columns (1), (3), (5), and (7), we use the trimmed sample from columns (2), (4), (6), and (8), respectively to re-estimate their gender wage gaps.

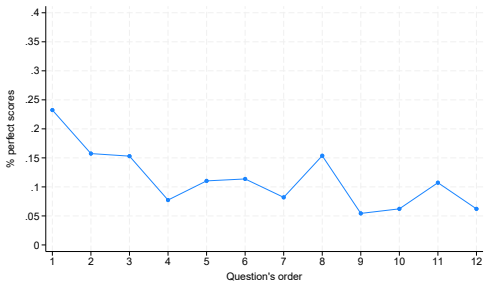
O.4 Appendix Figures and Tables

Figures

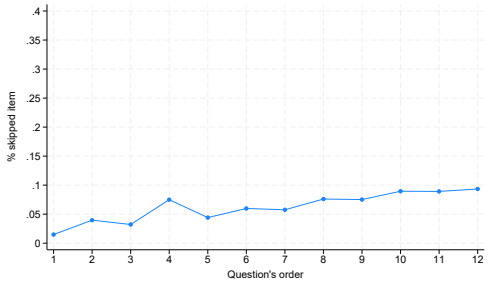
Figure O.1: Performance by Question Order



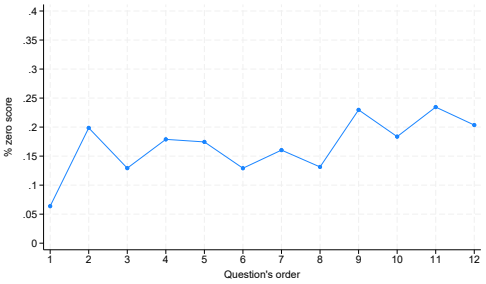
(a) Average Score



(b) Share of 'Perfect' Scores



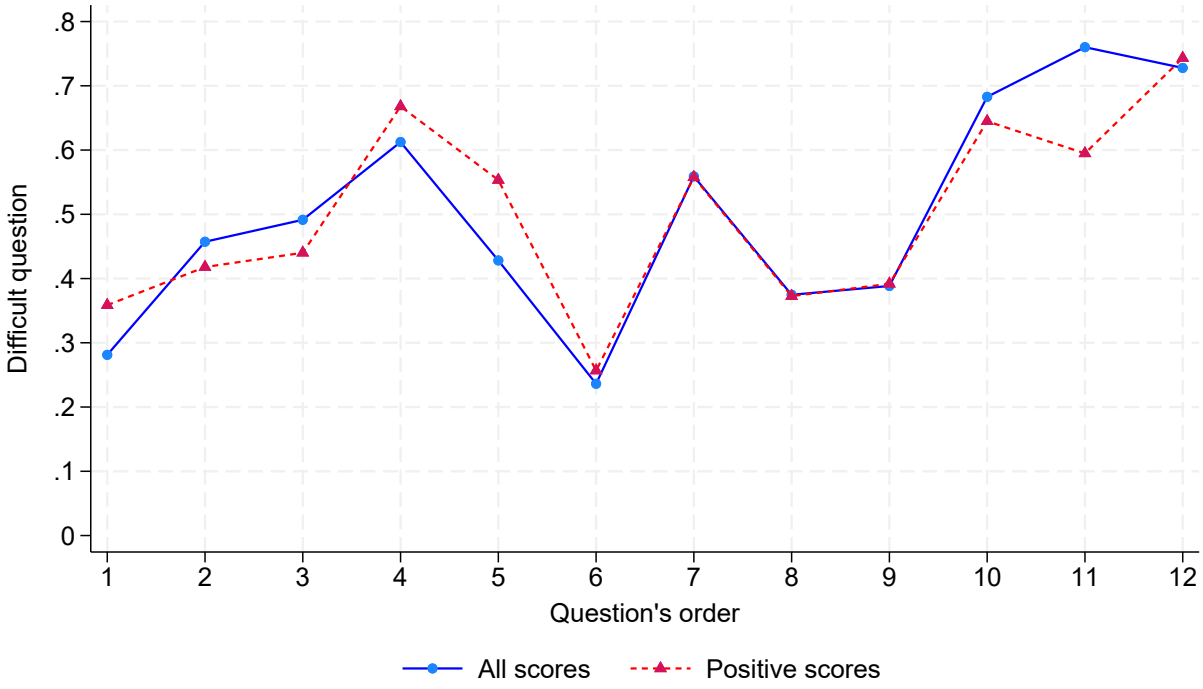
(c) Share of Omissions



(d) Share of Zero Scores

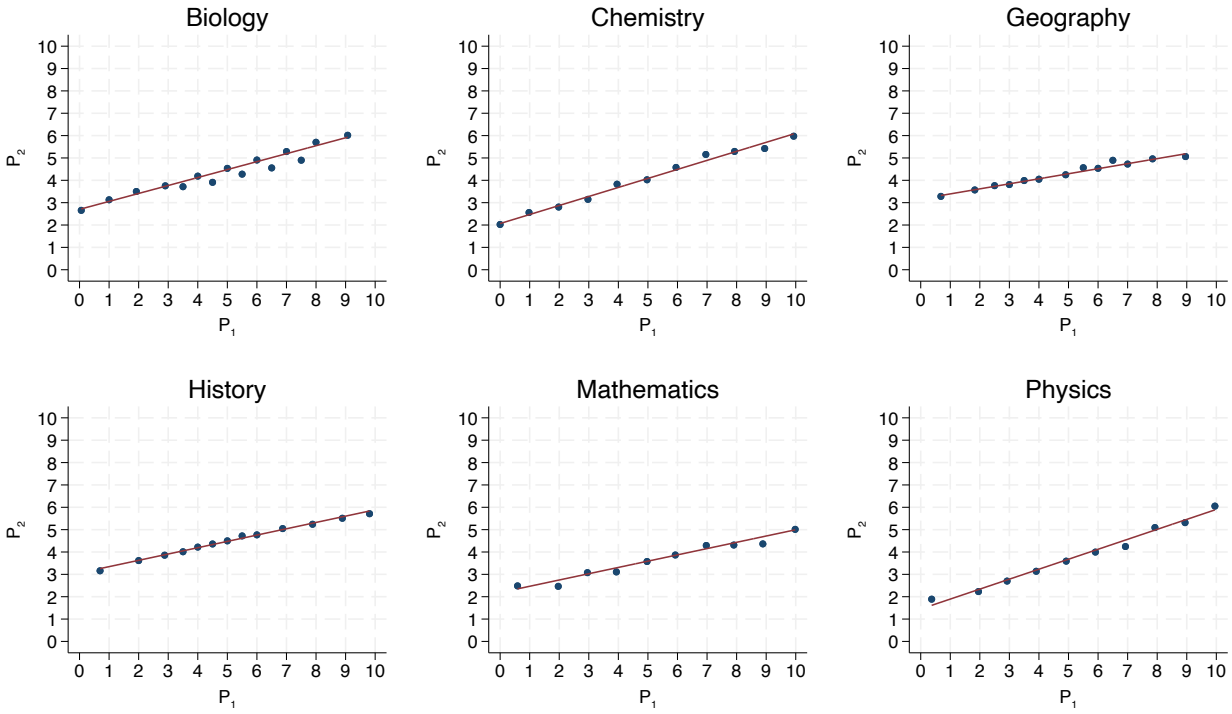
Notes: The figures present the average applicant performance by the order in which the question is displayed in the exam (subject-year). Subfigures: (a) presents the question's average raw score; subfigure (b) the percentage of 'perfect' (maximum) scores; (c) the percentage of omitted questions; (d) the percentage of attempted questions with a wrong answer (zero scores). Our sample includes applicants who attended P_1 and P_2 for admission between 2001 and 2002, the years in which we can distinguish omissions and attempted questions with wrong answers. We focus on the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics).

Figure O.2: Share of difficult questions by order in the exam



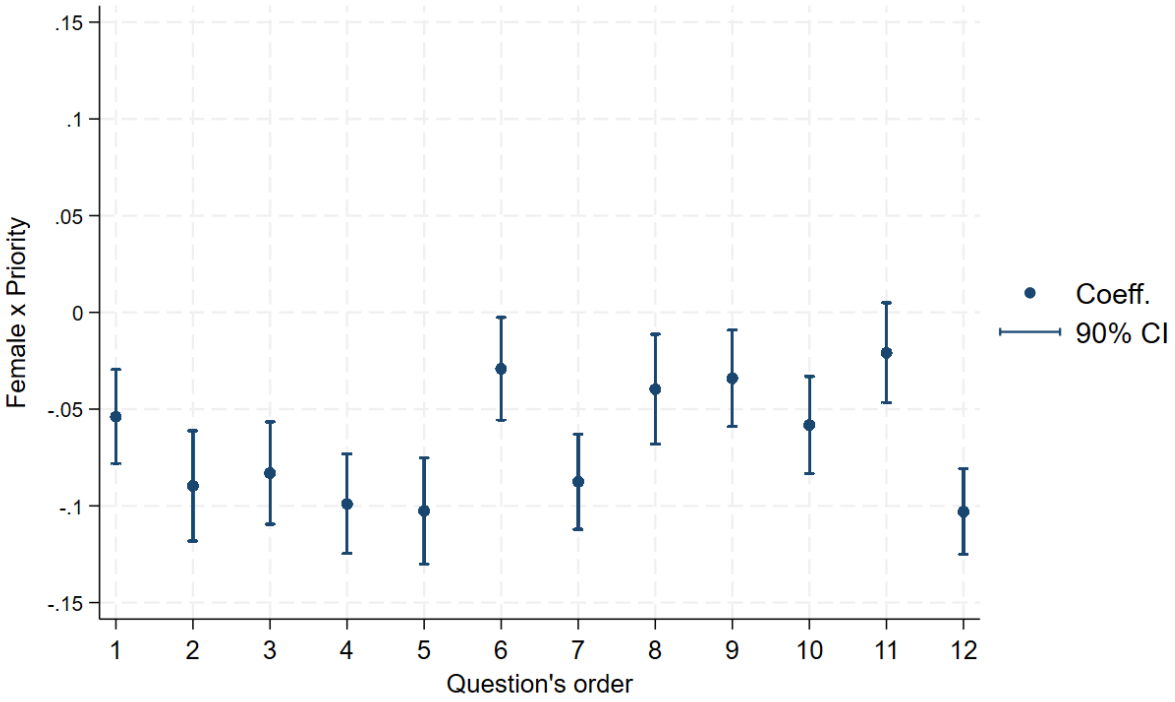
Notes: This figure presents the share of difficult questions by the order in which the question is displayed in the exam (subject-year). We classify each question as difficult if the average score is below the median in the exam. The solid line with circle markers displays the share of difficult questions considering all scores. The dashed line with triangle markers displays the share of difficult questions considering only positive scores, not considering zero scores and omissions when computing the average. Our sample includes applicants who attended P_1 and P_2 for admission between 2001 and 2004. We focus on the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics).

Figure O.3: Binscatter plots, raw P_1 and P_2 scores on a 10-point scale



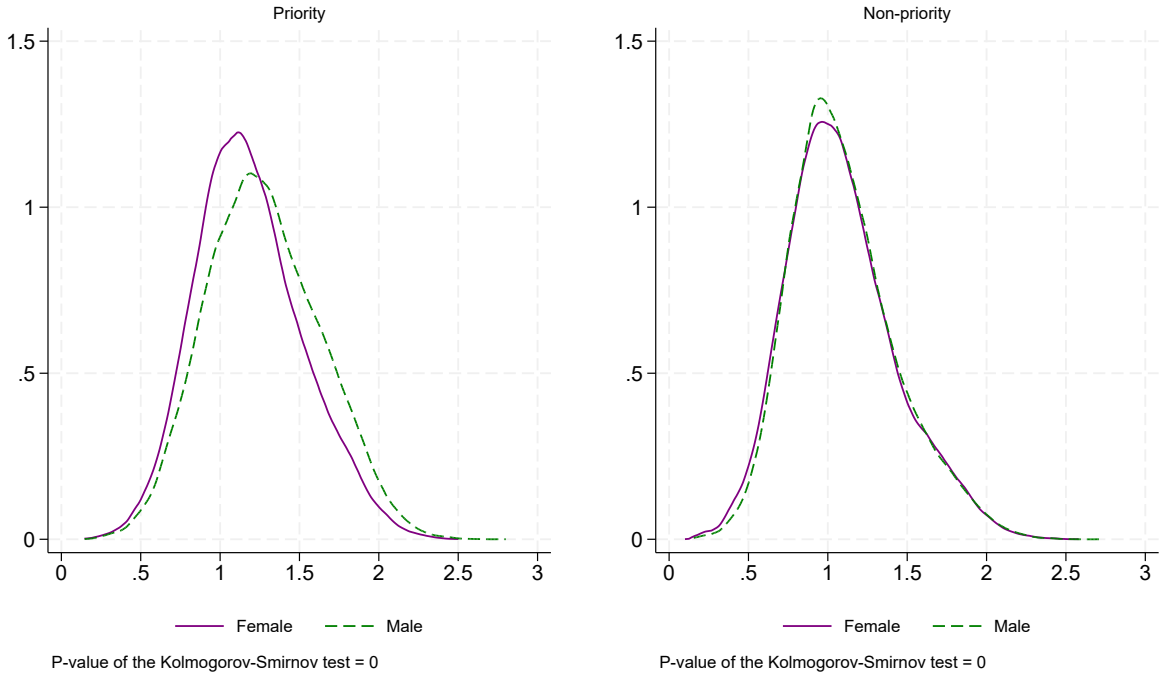
Notes: The graphs display binscatter plots of raw P_1 and P_2 scores converted to a 10-point scale and a linear regression line using ordinary least squares (OLS) for all subjects covered in both exam phases. The sample pools data on applicants who took P_1 and P_2 exams. Our sample includes applicants who attended P_1 and P_2 for admission between 2001 and 2004. We focus on the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics).

Figure O.4: Priority Subjects and Gender Performance Gap, By Question's Order in the Exam



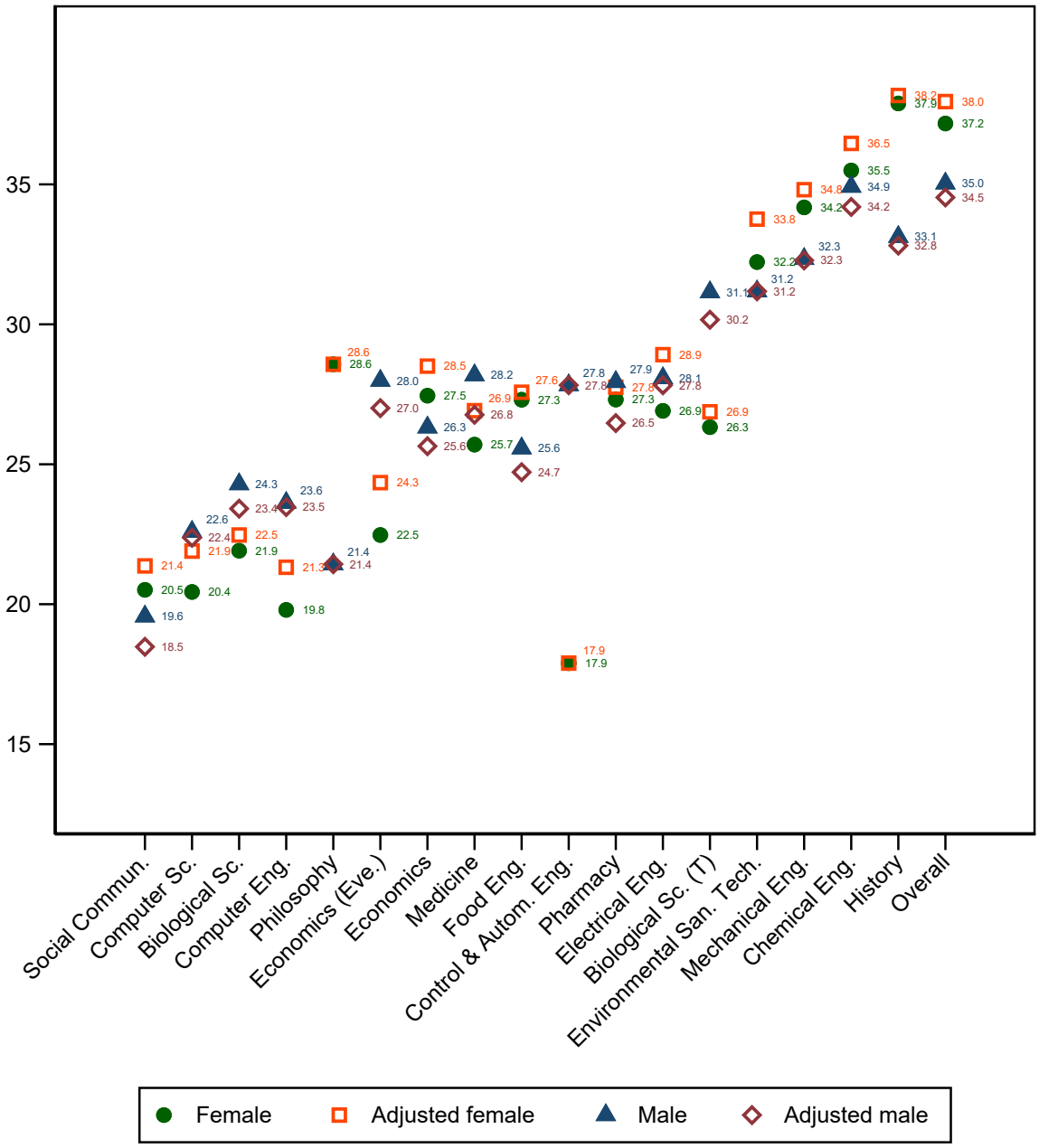
Notes: The graph plots the 'Female × Priority' coefficients using a specification analogous to column (7) in Table 2, but where the response variable is the question's score (0 to 5 scale) based on its order of appearance within the subject's exam. The scatter plot reports the estimated coefficients. The bands around the point estimates are 90% cluster-robust (at the applicant level) confidence intervals. Our sample includes applicants who attended P_1 and P_2 for admission between 2001 and 2004. We focus on the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics).

Figure O.5: Standard Deviations of IRT Residuals



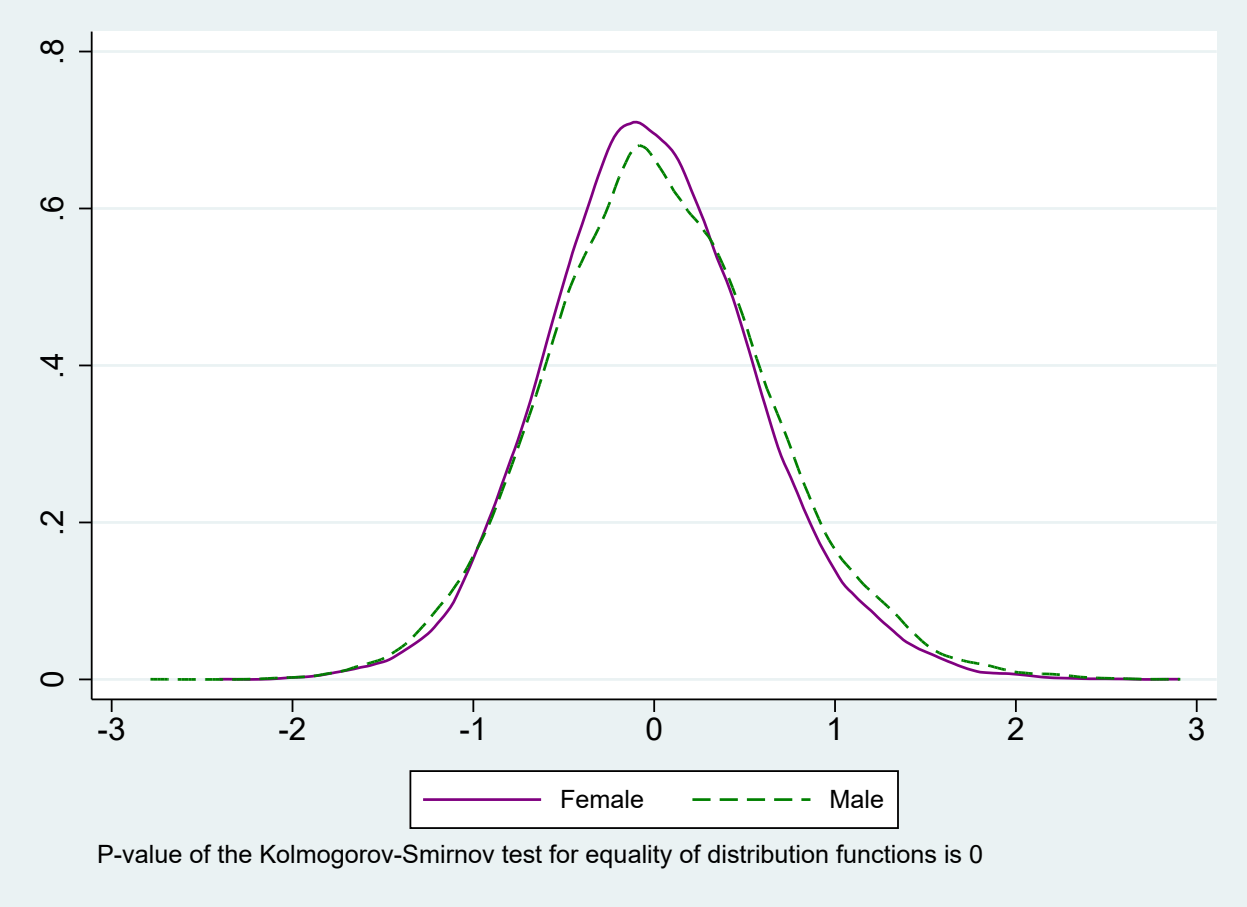
Notes: The figure displays the distributions of IRT residuals' standard deviations by gender and priority status. The first figure (left) displays the distribution for priority subjects, and the second figure (right) displays the distribution for non-priority subjects. We use the IRT Graded Response Model to predict the score for each question, taking into account the difficulty of the question and the applicant's ability in that subject. We define the difference between each question's actual and predicted scores as the 'IRT residual' and calculate the standard deviation of this difference. Our sample includes applicants who attended P_1 and P_2 for admission between 2001 and 2004. We focus on the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics).

Figure O.6: Admission Rates with Actual and Adjusted scores, Upper Bound



Notes: The figure presents admission rates for male and female applicants in our sample, including applicants who attended P_1 and P_2 for admission between 2001 and 2004, representing approximately 30% of UNICAMP applicants. We show the overall admission rate and those for majors with lower-than-average rates. We group medicine UNICAMP and FAMERP, as these majors are considered jointly in the admission process. We estimate the 'Female × Priority' coefficient using a specification analogous to column (7) in Table 2, but where the response variable is the raw score. The adjusted male and female admission rates result from subtracting the 'Female × Priority' coefficient for female applicants' priority subjects. We make no adjustments in non-priority subjects in this specification.

Figure O.7: Relative Priority Performance Measure Distribution by Gender



Notes: The figure displays the distribution of the relative priority performance measure by gender for applicants that participated in formal employmen between seven and 12 years after admission exam. Our sample includes applicants who attended P_1 and P_2 for admission between 2001 and 2004. To construct this measure, we first estimate our main specification (column (7) in Table 2), excluding the 'Female $\times$ Priority' interaction, and obtain the residuals. Next, we calculate the difference in average residuals between priority and non-priority subjects for each applicant. Finally, we normalize this difference over all applicants to have a mean of zero and a standard deviation of one.

Tables

Table O.1: Number of Priorities

	First choice		All choices		
	(1)	(2)	(3)	(4)	(5)
Female	-0.141***	-0.141***	-0.079***	-0.079***	-0.005
	(0.004)	(0.004)	(0.007)	(0.007)	(0.007)
ENEM		0.106***		0.082***	0.013***
		(0.002)		(0.004)	(0.004)
Number of observations	36,933	36,933	36,933	36,933	36,933
Major FE	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. In columns (1) and (2), the dependent variable is the number of priority subjects associated with the applicant's first-choice major. In columns (3), (4), and (5), the dependent variable is the number of priority subjects considering all applicant's choices. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a standard deviation of one for each year. We include (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.2: Priority Subjects by Major

	Port.	Bio.	Chem.	Hist.	Geo.	Math.	Phys.	Cutoff	Prop. Women	Prop. Applied
Medicine Unicamp		✓	✓					617	0.533	0.079
Medicine Famerp		✓	✓					603	0.547	0.041
Computer Engineering						✓	✓	584	0.091	0.059
Electrical Engineering						✓	✓	584	0.119	0.048
Control and Automation Engineering						✓	✓	577	0.081	0.032
Computer Science (Eve.)						✓	✓	575	0.127	0.029
Economics				✓		✓		574	0.388	0.046
Electrical Engineering (Eve.)						✓	✓	571	0.087	0.012
Social Communication (Media Studies)				✓		✓		565	0.560	0.006
Pharmacy		✓	✓					560	0.769	0.008
Economics (Eve.)				✓		✓		557	0.343	0.021
Chemical Engineering			✓			✓		557	0.446	0.037
Biological Sciences		✓						554	0.609	0.032
Food Engineering						✓	✓	551	0.760	0.040
Mechanical Engineering						✓	✓	544	0.078	0.055
Chemical Engineering (Eve.)			✓			✓		538	0.355	0.009
Food Engineering (Eve.)						✓	✓	514	0.713	0.011
History	✓			✓				514	0.523	0.018
Social Sciences	✓			✓				509	0.560	0.023
Language Studies (TB)	✓			✓				499	0.762	0.010
Civil Engineering						✓	✓	494	0.264	0.026
Chemistry Technology (Eve.)			✓					491	0.466	0.009
Biological Sciences (T) (Eve.)		✓						490	0.642	0.023
Chemistry			✓					488	0.589	0.025
Social Sciences (Eve.)	✓			✓				487	0.477	0.012
Physics (Eve.)						✓	✓	468	0.151	0.008
Physics, Math, Applied Math and Comp						✓	✓	466	0.296	0.038
Geology and Geography					✓			463	0.408	0.010
Linguistics	✓			✓				451	0.706	0.005
Philosophy	✓							450	0.429	0.001
Geography (Eve.)					✓			449	0.356	0.008
Language Studies (T) (Eve.)	✓			✓				449	0.747	0.007
Chemistry and Physics (T) (Eve.)			✓				✓	438	0.327	0.005
Dentistry		✓						438	0.697	0.035
Pedagogy (T)	✓			✓				423	0.954	0.011
Phonology	✓	✓						418	0.957	0.006
Information Technology (Eve.)						✓		415	0.223	0.010
Pedagogy (T) (Eve.)	✓			✓				415	0.932	0.010
Agricultural Engineering						✓	✓	407	0.309	0.016
Physical Education		✓		✓				407	0.509	0.013
Telecommunications Technology						✓		403	0.210	0.003
Nursing Unicamp		✓						402	0.948	0.013
Physical Education (Eve.)		✓		✓				398	0.397	0.012
Mathematics (T) (Eve.)						✓	✓	391	0.439	0.010
Statistics						✓	✓	377	0.505	0.018
Nursing Famerp		✓						370	0.941	0.016
Information Technology						✓		360	0.276	0.008
Environmental Sanitation Technology (Eve.)						✓		329	0.598	0.018
Construction Technology (Eve.)						✓		325	0.423	0.008
Environmental Sanitation Technology						✓		310	0.660	0.003
Overall								533	0.432	1.003

Notes: We include two majors offered at FAMERP (*Faculdade de Medicina de São José do Rio Preto*), medicine and nursing, as they use UNICAMP's exam for their admission. Majors with (Eve.) are offered in the evening. (T) and (TB) are teaching (*licenciaturas*) and teaching/bachelor majors, respectively. 'Cutoff' is the final score of the student admitted with the lowest score in her first-choice major. The proportion of female applicants ('Prop. Women') and the proportion of applicants who chose the major as their first choice ('Prop. Applied') are measured over the 2001-2004 period, after our sample restrictions. We exclude architecture and urban planning, arts, dance, music composition, music composition and conducting, music conducting, music instruments, popular music, and scenic arts as they require aptitude tests.

Table O.3: Predicting Power of P_1 Scores for P_2 Scores

	(1)	(2)	(3)	(4)
Panel A: Phase 2 raw subject-specific scores				
Raw Phase 1 scores		1.870***		0.855***
		(0.009)		(0.008)
Number of observations	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933
$\bar{R}^2$	0.030	0.267	0.481	0.522
Year FE	Yes	Yes	No	No
Individual FE	No	No	Yes	Yes
Panel B: Phase 2 normalized subject-specific scores				
P1 normalized subject-specific scores		0.544***		0.238***
		(0.002)		(0.002)
Number of observations	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933
$\bar{R}^2$	0.000	0.295	0.536	0.577
Year FE	No	No	No	No
Individual FE	No	No	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. We focus on the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). In Panel A, the dependent variable is the raw P_2 subject-specific scores (out of 60), while the main regressor is the P_1 subject-specific raw scores (out of 10). In Panel B, the dependent variable is the normalized P_2 subject-specific scores (mean of zero and standard deviation (s.d.) of one for each subject-year). The main regressor is the P_1 subject-specific scores (mean of zero and s.d. of one for each subject-year). We include admission exam year fixed effects ('Year FE') and individual fixed effects ('Individual FE'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.4: Descriptive Statistics

	Full sample	Women	Men	Difference
Female	0.43			
	(0.50)			
Age	19.21	19.21	19.21	-0.00
	(1.62)	(1.56)	(1.67)	
Norm. ENEM scores	0.00	-0.24	0.19	-0.43***
	(1.00)	(1.04)	(0.93)	
# of priority subjects	1.78	1.70	1.84	-0.14***
	(0.41)	(0.46)	(0.37)	
Major cutoff	516.65	501.80	527.96	-26.16***
	(78.77)	(83.48)	(72.98)	
Biology is a priority subject	0.28	0.40	0.18	0.22***
	(0.45)	(0.49)	(0.39)	
Chemistry is a priority subject	0.23	0.28	0.19	0.09***
	(0.42)	(0.45)	(0.39)	
Geography is a priority subject	0.02	0.02	0.02	-0.00**
	(0.13)	(0.12)	(0.14)	
History is a priority subject	0.18	0.23	0.15	0.08***
	(0.38)	(0.42)	(0.35)	
Mathematics is a priority subject	0.57	0.39	0.71	-0.32***
	(0.49)	(0.49)	(0.45)	
Physics is a priority subject	0.41	0.23	0.54	-0.31***
	(0.49)	(0.42)	(0.50)	
Portuguese is a priority subject	0.10	0.16	0.06	0.10***
	(0.30)	(0.37)	(0.23)	
Normalized P1 scores (average)	0.00	-0.10	0.07	-0.17***
	(0.63)	(0.66)	(0.59)	
Normalized P2 scores (average)	-0.00	-0.13	0.10	-0.23***
	(0.78)	(0.80)	(0.76)	
Normalized P2 scores (weighted average)	0.07	-0.06	0.17	-0.24***
	(0.79)	(0.81)	(0.77)	
P2 score standard deviation	7.26	7.13	7.36	-0.24***
	(2.52)	(2.47)	(2.55)	
P2 score coefficient of variation	0.32	0.34	0.30	0.03***
	(0.17)	(0.18)	(0.16)	
Avg annual wages - 7 to 12 years after exam	35,180	29,973	38,987	-9,015***
	(23,532)	(19,773)	(25,268)	
Max annual wages - 7 to 12 years after exam	48,319	41,182	53,538	-12,356***
	(34,456)	(28,829)	(37,192)	
Match rate - RAIS 7 to 12 years after exam	0.81	0.79	0.82	-0.03***
	(0.39)	(0.41)	(0.38)	
Within-applicant stand.dev - Norm. P2 scores	0.62	0.60	0.64	
Within-applicant stand.dev - Norm. P1 scores	0.78	0.78	0.78	
# Applicants	36,933	15,962	20,971	

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. We compute our descriptive statistics at the applicant level. 'Age' is a student's age in June of the exam year. 'Norm. ENEM scores' are normalized to have a mean of zero and a standard deviation (s.d.) of one each year. 'Major cutoff' corresponds to the final score of the student admitted with the lowest score in her first-choice major. We compute the normalized P_1 and P_2 scores by averaging our six subjects' normalized scores (biology, chemistry, geography, history, mathematics, andÂ physics). Subject-specific scores are normalized to have a mean zero and a s.d. of one for each subject-year. We calculate normalized P_1 and P_2 'scores (average)' using equal weights for the six subjects. 'Phase 2 scores (weighted average)' uses a weight of two for priority subjects and one for non-priority subjects. 'Match rate - RAIS seven to 12 years after' is the match rate of RAIS and UNICAMP administrative datasets between seven and 12 years after they took the admission exam. For the matched sample, we compute the average ('Avg') and maximum ('Max') real annual wages (in 2002 Brazilian *reais*). The within-applicant s.d. captures the variation in performance across the six subjects within applicants. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.5: Descriptive Statistics with Averages and Standard Deviations of Normalized Scores

	All subjects			Priority subjects			Non priority subjects		
	Men	Women	Diff.	Men	Women	Diff.	Men	Women	Diff.
Panel A: Phase 1 scores									
Biology	0.02	-0.02	0.04***	0.61	0.42	0.19***	-0.12	-0.32	0.20***
	(0.98)	(1.02)		(0.95)	(0.96)		(0.94)	(0.95)	
	20,971	15,962		3,833	6,419		17,138	9,543	
Chemistry	0.08	-0.11	0.19***	0.59	0.50	0.08***	-0.03	-0.34	0.31***
	(1.02)	(0.97)		(0.91)	(0.87)		(1.01)	(0.90)	
	20,971	15,962		3,899	4,414		17,072	11,548	
Geography	0.03	-0.04	0.08***	0.08	0.03	0.05	0.03	-0.05	0.08***
	(0.97)	(1.04)		(0.89)	(1.03)		(0.97)	(1.04)	
	20,971	15,962		397	249		20,574	15,713	
History	0.04	-0.06	0.10***	0.27	0.04	0.23***	0.01	-0.09	0.09***
	(0.99)	(1.01)		(0.91)	(0.96)		(0.99)	(1.03)	
	20,971	15,962		3,085	3,598		17,886	12,364	
Mathematics	0.12	-0.16	0.28***	0.16	-0.10	0.26***	0.03	-0.20	0.23***
	(0.96)	(1.03)		(0.93)	(1.02)		(1.01)	(1.04)	
	20,971	15,962		14,890	6,184		6,081	9,778	
Physics	0.15	-0.19	0.34***	0.34	0.05	0.30***	-0.09	-0.26	0.18***
	(0.94)	(1.05)		(0.79)	(0.91)		(1.04)	(1.08)	
	20,971	15,962		11,289	3,677		9,682	12,285	
Essay	-0.11	0.14	-0.25***	0.15	0.19	-0.04	-0.12	0.13	-0.25***
	(1.00)	(0.98)		(0.98)	(0.92)		(1.00)	(0.99)	
	20,971	15,962		1,211	2,592		19,760	13,370	
Panel B: Phase 2 scores									
Biology	-0.00	0.01	-0.01	0.76	0.58	0.18***	-0.18	-0.38	0.20***
	(0.97)	(1.03)		(0.93)	(0.92)		(0.90)	(0.92)	
	20,971	15,962		3,833	6,419		17,138	9,543	
Chemistry	0.10	-0.14	0.24***	0.77	0.65	0.12***	-0.05	-0.44	0.39***
	(1.00)	(0.98)		(0.88)	(0.84)		(0.96)	(0.86)	
	20,971	15,962		3,899	4,414		17,072	11,548	
Geography	0.07	-0.09	0.16***	0.47	0.36	0.11	0.06	-0.10	0.16***
	(0.98)	(1.02)		(0.86)	(0.81)		(0.98)	(1.02)	
	20,971	15,962		397	249		20,574	15,713	
History	0.05	-0.06	0.10***	0.58	0.25	0.34***	-0.05	-0.15	0.10***
	(0.98)	(1.02)		(0.88)	(0.95)		(0.97)	(1.02)	
	20,971	15,962		3,085	3,598		17,886	12,364	
Language	0.04	-0.05	0.08***				0.04	-0.05	0.08***
	(0.98)	(1.03)					(0.98)	(1.03)	
	20,971	15,962					20,971	15,962	
Mathematics	0.17	-0.23	0.40***	0.29	-0.05	0.34***	-0.11	-0.34	0.23***
	(0.98)	(0.97)		(0.95)	(0.96)		(1.01)	(0.97)	
	20,971	15,962		14,890	6,184		6,081	9,778	
Physics	0.21	-0.27	0.48***	0.51	0.02	0.49***	-0.14	-0.36	0.22***
	(0.99)	(0.95)		(0.85)	(0.84)		(1.03)	(0.96)	
	20,971	15,962		11,289	3,677		9,682	12,285	
Portuguese	-0.16	0.20	-0.36***	0.03	0.20	-0.17***	-0.17	0.20	-0.37***
	(0.98)	(0.99)		(0.86)	(0.90)		(0.99)	(1.01)	
	20,971	15,962		1,211	2,592		19,760	13,370	

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The P_1 and P_2 subject-specific scores are normalized to have a mean of zero and a standard deviation of one for each subject-year. Standard deviations are in parentheses, and the number of observations is in the row below.

Table O.6: Priority and P_1 Subject-Specific Performance - All Applicants

	(1)	(2)	(3)	(4)	(5)
Dependent variable: Phase 1 normalized subject-specific scores					
Female	-0.204***	-0.173***			
	(0.003)	(0.005)			
Future Priority	0.258***	0.279***	0.266***	0.260***	0.289***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Female × Future Priority	-0.035***	-0.033***	-0.046***	-0.049***	-0.044***
	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
ENEM	0.576***	0.576***			
	(0.001)	(0.001)			
$\bar{R}^2$	0.346	0.348	0.481	0.486	0.487
Number of observations	656,556	656,556	656,556	656,556	656,556
Number of applicants	109,426	109,426	109,426	109,426	109,426
Subject FE	No	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes
ENEM × Future Priority	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 for admission. The dependent variable is P_1 subject-specific scores normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Future priority' is a dummy indicating if the subject will be a priority in P_2. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Future Priority' is a quartic function for the interactions between the relative ENEM performance and the future priority subject dummy. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.7: Priority and P_1 Subject-Specific Performance - Did not pass P_1 - Quintiles

	Did not pass P1					P1 survivors
	Q1	Q2	Q3	Q4	Q5	Main sample
Dependent variable: Phase 1 normalized subject-specific scores						
Future Priority	0.165	0.128	0.304***	0.297***	0.474***	0.339***
	(0.352)	(0.196)	(0.022)	(0.012)	(0.167)	(0.007)
Female × Future Priority	-0.058***	-0.077***	-0.097***	-0.056***	-0.026	-0.007
	(0.011)	(0.016)	(0.019)	(0.021)	(0.021)	(0.009)
Mean dependent variable	-0.96	-0.60	-0.31	-0.02	0.42	0.00
Std.dev dependent variable	0.63	0.73	0.79	0.85	0.91	1.00
Share women	0.53	0.53	0.53	0.53	0.53	0.43
$\bar{R}^2$	0.283	0.221	0.206	0.216	0.254	0.305
Number of observations	85,830	85,830	85,818	85,830	85,818	221,598
Number of applicants	14,305	14,305	14,303	14,305	14,303	36,933
Subject FE	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	Yes	Yes	Yes	Yes	Yes	Yes
ENEM × Future Priority	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 for admission. Based on their ENEM scores, we divide the sample of individuals who did not pass P_1 into quintiles. We also present results from our main sample (column (5) in Table 1) for comparison purposes in the last column. The dependent variable is P_1 subject-specific scores normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Future priority' is a dummy indicating if the subject will be a priority in P_2. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Future Priority' is a quartic function for the interactions between the relative ENEM performance and the future priority subject dummy. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.8: Priority Subjects and Gender Performance Gap (Excluding Medicine)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female	-0.239***	-0.136***					
	(0.006)	(0.009)					
Priority	0.509***	0.681***	0.639***	0.639***	0.660***	0.591***	0.593***
	(0.005)	(0.007)	(0.006)	(0.006)	(0.007)	(0.007)	(0.007)
Female × Priority	-0.017**	-0.110***	-0.094***	-0.097***	-0.094***	-0.094***	-0.093***
	(0.007)	(0.009)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)
ENEM	0.477***	0.475***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.314	0.330	0.552	0.555	0.556	0.587	0.587
Number of observations	194,958	194,958	194,958	194,958	194,958	194,958	194,958
Number of applicants	32,493	32,493	32,493	32,493	32,493	32,493	32,493
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, excluding medicine applicants (UNICAMP and FAMERP). The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.9: Heterogeneity Across Subjects (Excluding Medicine)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female × Priority × Biology	0.165***	0.072***	-0.036*	-0.046**	-0.047**	-0.037**	-0.037**
	(0.021)	(0.024)	(0.019)	(0.019)	(0.019)	(0.018)	(0.018)
Female × Priority × Chemistry	-0.128***	0.052	0.095***	0.084***	0.078***	0.065**	0.065**
	(0.031)	(0.034)	(0.028)	(0.028)	(0.028)	(0.027)	(0.027)
Female × Priority × Geography	-0.173**	-0.137*	-0.078	-0.046	-0.067	-0.073	-0.075
	(0.070)	(0.071)	(0.068)	(0.068)	(0.068)	(0.067)	(0.067)
Female × Priority × History	-0.209***	-0.179***	-0.067**	-0.057**	-0.043	-0.053*	-0.053*
	(0.028)	(0.033)	(0.029)	(0.029)	(0.029)	(0.028)	(0.028)
Female × Priority × Mathematics	-0.226***	-0.244***	-0.067**	-0.051*	-0.046*	-0.069***	-0.068***
	(0.024)	(0.032)	(0.027)	(0.027)	(0.027)	(0.026)	(0.026)
Female × Priority × Physics	-0.362***	-0.281***	-0.083***	-0.078***	-0.070***	-0.086***	-0.085***
	(0.025)	(0.031)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)
Priority × Biology	0.429***	0.463***	0.418***	0.424***	0.450***	0.386***	0.390***
	(0.018)	(0.019)	(0.015)	(0.015)	(0.016)	(0.015)	(0.015)
Priority × Chemistry	0.076***	-0.055**	-0.138***	-0.130***	-0.135***	-0.117***	-0.117***
	(0.025)	(0.027)	(0.022)	(0.022)	(0.022)	(0.021)	(0.021)
Priority × Geography	0.399***	0.249***	0.497***	0.452***	0.478***	0.469***	0.468***
	(0.048)	(0.049)	(0.046)	(0.046)	(0.047)	(0.045)	(0.045)
Priority × History	0.299***	0.286***	0.533***	0.524***	0.517***	0.482***	0.482***
	(0.022)	(0.025)	(0.022)	(0.022)	(0.022)	(0.021)	(0.021)
Priority × Mathematics	-0.020	0.269***	0.227***	0.205***	0.207***	0.229***	0.228***
	(0.019)	(0.025)	(0.021)	(0.021)	(0.021)	(0.020)	(0.020)
Priority × Physics	0.154***	0.318***	0.228***	0.229***	0.224***	0.212***	0.211***
	(0.020)	(0.024)	(0.019)	(0.019)	(0.019)	(0.018)	(0.019)
ENEM	0.478***	0.473***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.319	0.331	0.558	0.560	0.561	0.592	0.592
Number of observations	194,958	194,958	194,958	194,958	194,958	194,958	194,958
Number of applicants	32,493	32,493	32,493	32,493	32,493	32,493	32,493
Female	Yes	Yes	No	No	No	No	No
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, excluding medicine applicants (UNICAMP and FAMERP). The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include a gender dummy ('Female'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.10: Priority Subjects and Gender Performance Gap (Including Portuguese)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female	-0.120***	-0.089***					
	(0.006)	(0.008)					
Priority	0.508***	0.580***	0.558***	0.557***	0.591***	0.525***	0.536***
	(0.004)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)
Female × Priority	-0.062***	-0.070***	-0.065***	-0.069***	-0.062***	-0.060***	-0.059***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
ENEM	0.536***	0.535***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.330	0.348	0.572	0.574	0.575	0.600	0.600
Number of observations	258,531	258,531	258,531	258,531	258,531	258,531	258,531
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics) and Portuguese. We include Portuguese P_2 scores, using the essay as P_1 scores. 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.11: Priority Subjects and Gender Performance Gap (P_2 Raw Scores)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 subject-specific raw scores							
Female	-2.217***	-0.899***					
	(0.059)	(0.088)					
Priority	5.260***	6.375***	5.863***	5.732***	6.185***	5.456***	5.577***
	(0.054)	(0.064)	(0.060)	(0.058)	(0.066)	(0.062)	(0.072)
Female × Priority	-0.493***	-0.812***	-0.924***	-0.920***	-0.842***	-0.790***	-0.751***
	(0.081)	(0.087)	(0.082)	(0.080)	(0.081)	(0.077)	(0.077)
ENEM	0.434***	0.432***					
	(0.003)	(0.003)					
Mean dependent variable	25.72						
Std.dev dependent variable	10.66						
$\bar{R}^2$	0.344	0.373	0.558	0.585	0.586	0.611	0.611
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Year FE	Yes	Yes	No	No	No	No	No
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. We use raw ENEM, P_1 and P_2 scores in the regressions. The dependent variable is P_2 subject-specific scores for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Regressions include admission exam year fixed effects ('Year FE'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' P_1 subject score minus their gender-year group's average. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.12: Priority Subjects and Gender Performance Gap (Normalization by Gender)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 scores, normalized by year, subject and gender							
Female	0.001	-0.108***					
	(0.006)	(0.008)					
Priority	0.430***	0.600***	0.561***	0.561***	0.600***	0.533***	0.548***
	(0.005)	(0.006)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)
Female × Priority	0.065***	-0.058***	-0.072***	-0.072***	-0.064***	-0.063***	-0.061***
	(0.007)	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
ENEM	0.549***	0.546***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.341	0.351	0.587	0.590	0.591	0.618	0.618
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year-gender for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.13: Priority Subjects and Gender Performance Gap (Additional P_1 Interactions)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Dependent variable: Phase 2 normalized subject-specific scores									
Female	-0.211***	-0.100***							
	(0.006)	(0.008)							
Priority	0.491***	0.591***	0.553***	0.553***	0.591***	0.524***	0.539***	0.536***	0.532***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Female × Priority	0.003	-0.049***	-0.062***	-0.063***	-0.055***	-0.054***	-0.053***	-0.047***	-0.044***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
ENEM	0.542***	0.540***							
	(0.003)	(0.003)							
$\bar{R}^2$	0.354	0.364	0.595	0.598	0.598	0.625	0.625	0.625	0.626
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes	No	No
Phase 1 scores × Priority	No	No	No	No	No	No	Yes	Yes	Yes
Phase 1 scores × Female	No	No	No	No	No	No	No	Yes	Yes
Phase 1 scores × Subject FE	No	No	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'), the female dummy ('Phase 1 Scores × Female'), and subject fixed effects ('Phase 1 Scores × Subject FE'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.14: Alternative Dependent Variable: Phase 2 - Phase 1 Scores

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable: Normalized Phase 2 scores - Phase 1 scores						
Female	-0.046***	0.017*				
	(0.005)	(0.010)				
Priority	0.184***	0.228***	0.224***	0.237***	0.252***	0.442***
	(0.006)	(0.007)	(0.007)	(0.007)	(0.008)	(0.007)
Female × Priority	-0.018**	-0.053***	-0.051***	-0.052***	-0.048***	-0.049***
	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)	(0.008)
ENEM	0.154***	0.154***				
	(0.002)	(0.002)				
$\bar{R}^2$	0.034	0.036	0.086	0.092	0.092	0.211
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes
Phase 1 scores	No	No	No	No	No	No
Phase 1 scores × Priority	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 normalized score minus P_1 normalized score in each of the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). The P_1 and P_2 subject-specific scores are normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year. 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance interacted with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.15: Priority Subjects and Gender Performance Gap (All P_1 Scores × Subject FE)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female	-0.211***	-0.100***					
	(0.006)	(0.008)					
Priority	0.491***	0.591***	0.553***	0.553***	0.591***	0.471***	0.484***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)
Female × Priority	0.003	-0.049***	-0.062***	-0.063***	-0.055***	-0.054***	-0.052***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
ENEM	0.542***	0.540***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.354	0.364	0.595	0.598	0.598	0.655	0.655
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores (all subjects) × Subject FE	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. 'Phase 1 Scores (All subjects)' is the applicant's subject-specific relative P_1 performance in each subject covered in both phases (biology, chemistry, geography, history, mathematics, and physics). Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance in all six subjects ('Phase 1 Scores (All subjects)' and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.16: (All Choices) Priority Subjects and Gender Performance Gap

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female	-0.214***	-0.107***					
	(0.006)	(0.008)					
Priority	0.495***	0.600***	0.570***	0.570***	0.609***	0.541***	0.556***
	(0.005)	(0.006)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)
Female × Priority	0.007	-0.046***	-0.063***	-0.064***	-0.056***	-0.054***	-0.053***
	(0.007)	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Priority Other Choice, Not First	0.091***	0.136***	0.274***	0.273***	0.291***	0.251***	0.273***
	(0.017)	(0.017)	(0.013)	(0.013)	(0.015)	(0.014)	(0.016)
Female × Priority Other Choice, Not First	0.063***	0.069***	-0.002	-0.004	-0.000	0.001	0.000
	(0.023)	(0.023)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
ENEM	0.542***	0.541***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.355	0.365	0.597	0.600	0.600	0.626	0.626
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). We consider the priority subjects of all choices made by the applicant. 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'Priority Other Choice, Not First' is a dummy variable equal to one if the priority subject is not from the applicant's first choice. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.17: Priority Subjects, Difficult Questions and Performance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Questions' raw scores (Phase 2)							
Female	-0.174***	-0.063***					
	(0.006)	(0.008)					
Priority	0.613***	0.705***	0.665***	0.654***	0.672***	0.618***	0.623***
	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)
Female × Priority	-0.132***	-0.158***	-0.165***	-0.161***	-0.153***	-0.152***	-0.151***
	(0.008)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Female × Priority × Difficult question	0.176***	0.176***	0.176***	0.176***	0.176***	0.176***	0.176***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Priority × Difficult question	-0.352***	-0.352***	-0.352***	-0.352***	-0.352***	-0.352***	-0.352***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Difficult question	-1.151***	-1.151***	-1.151***	-1.151***	-1.151***	-1.151***	-1.151***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Female × Difficult question	-0.032***	-0.032***	-0.032***	-0.032***	-0.032***	-0.032***	-0.032***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
ENEM	0.447***	0.445***					
	(0.003)	(0.003)					
Mean dependent variable	2.14						
Std.dev dependent variable	1.65						
Number of observations	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Order FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is the question's raw score (ranging from 0 to 5 points) for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'Difficult question' is a dummy variable equal to one if the average performance on this question is below the median of question average scores for that subject-year. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include fixed effects for the questions' order of appearance in the exam ('Order FE'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.18: Priority Subjects, Question's Difficulty (by Gender) and Performance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Questions' raw scores (Phase 2)							
Female	-0.177***	-0.066***					
	(0.006)	(0.008)					
Priority	0.616***	0.708***	0.668***	0.658***	0.695***	0.642***	0.646***
	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)
Female × Priority	-0.133***	-0.160***	-0.166***	-0.166***	-0.159***	-0.157***	-0.156***
	(0.008)	(0.009)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Female × Priority × Difficult question	0.179***	0.179***	0.179***	0.179***	0.179***	0.179***	0.179***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Priority × Difficult question	-0.358***	-0.358***	-0.358***	-0.358***	-0.358***	-0.358***	-0.358***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Difficult question	-1.156***	-1.156***	-1.156***	-1.156***	-1.156***	-1.156***	-1.156***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Female × Difficult question	-0.026***	-0.026***	-0.026***	-0.026***	-0.026***	-0.026***	-0.026***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
ENEM	0.447***	0.445***					
	(0.003)	(0.003)					
Mean dependent variable	2.14						
Std.dev dependent variable	1.65						
Number of observations	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Order FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is the question's raw score (ranging from 0 to 5 points) for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'Difficult question' is a dummy variable equal to one if the average performance on this question is below the median of question average scores for that subject, gender and year. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include fixed effects for the questions' order of appearance in the exam ('Order FE'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.19: Priority Subjects, Very Difficult Questions and Performance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Questions' raw scores (Phase 2)							
Female	-0.190***	-0.079***					
	(0.006)	(0.008)					
Priority	0.534***	0.626***	0.586***	0.575***	0.593***	0.539***	0.544***
	(0.005)	(0.006)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)
Female × Priority	-0.088***	-0.114***	-0.121***	-0.117***	-0.109***	-0.108***	-0.107***
	(0.007)	(0.008)	(0.008)	(0.007)	(0.007)	(0.007)	(0.007)
Female × Priority × Very difficult question	0.175***	0.175***	0.175***	0.175***	0.175***	0.175***	0.175***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Priority × Very difficult question	-0.388***	-0.388***	-0.388***	-0.388***	-0.388***	-0.388***	-0.388***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Very difficult question	-1.130***	-1.130***	-1.130***	-1.130***	-1.130***	-1.130***	-1.130***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Female × Very difficult question	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
ENEM	0.447***	0.445***					
	(0.003)	(0.003)					
Mean dependent variable	2.14						
Std.dev dependent variable	1.65						
Number of observations	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Order FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is the question's raw score (ranging from 0 to 5 points) for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'Very difficult question' is a dummy variable equal to one if the average performance on this question is among the bottom 25% of question average scores for that subject-year. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include fixed effects for the questions' order of appearance in the exam ('Order FE'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.20: Priority Subjects, Most Difficult Questions and Performance

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Questions' raw scores (Phase 2)							
Female	-0.195***	-0.084***					
	(0.005)	(0.008)					
Priority	0.462***	0.554***	0.513***	0.503***	0.521***	0.466***	0.472***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)
Female × Priority	-0.051***	-0.078***	-0.084***	-0.080***	-0.073***	-0.071***	-0.070***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Female × Priority × Most difficult question	0.087***	0.087***	0.087***	0.087***	0.087***	0.087***	0.087***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Priority × Most difficult question	-0.298***	-0.298***	-0.298***	-0.298***	-0.298***	-0.298***	-0.298***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Most difficult question	-1.215***	-1.215***	-1.215***	-1.215***	-1.215***	-1.215***	-1.215***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Female × Most difficult question	0.057***	0.057***	0.057***	0.057***	0.057***	0.057***	0.057***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
ENEM	0.447***	0.445***					
	(0.003)	(0.003)					
Mean dependent variable	2.14						
Std.dev dependent variable	1.65						
Number of observations	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176	2,659,176
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Order FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is the question's raw score (ranging from 0 to 5 points) for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'Most difficult question' is a dummy variable equal to one if the question has the lowest question average score for that subject-year. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include fixed effects for the questions' order of appearance in the exam ('Order FE'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.21: Priority Subjects and Within-Exam Performance (Early vs. Late Questions)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Average score first 4 questions - Average score last 4 questions							
Female	0.141***	-0.049***					
	(0.006)	(0.011)					
Priority	0.804***	0.014*	0.019**	0.030***	0.043***	0.034***	0.028***
	(0.009)	(0.008)	(0.008)	(0.008)	(0.009)	(0.009)	(0.010)
Female × Priority	-0.678***	-0.038***	-0.046***	-0.032***	-0.033***	-0.031***	-0.027**
	(0.015)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
ENEM	0.041***	0.052***					
	(0.002)	(0.002)					
Mean dependent variable	0.52						
Std.dev dependent variable	1.31						
$\bar{R}^2$	0.048	0.342	0.347	0.355	0.356	0.357	0.358
Number of observations	221,598	221,598	221,598	221,598	221,598	221,598	221,598
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. We focus on the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). The dependent variable is the average raw score in early questions (1 to 4) minus the average raw score in the late questions (9 to 12) for each subject in P_2. 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a standard deviation (s.d.) of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.22: Priority Subjects and Gender Performance Gap: First time UNICAMP

	First time UNICAMP							Not first time						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Dependent variable: Phase 2 normalized subject-specific scores														
Female	-0.230***	-0.119***						-0.192***	-0.080***					
	(0.008)	(0.011)						(0.009)	(0.013)					
Priority	0.498***	0.626***	0.584***	0.582***	0.620***	0.552***	0.560***	0.485***	0.558***	0.521***	0.526***	0.563***	0.498***	0.519***
	(0.006)	(0.008)	(0.008)	(0.008)	(0.009)	(0.008)	(0.009)	(0.007)	(0.008)	(0.007)	(0.007)	(0.008)	(0.008)	(0.009)
Female × Priority	-0.009	-0.076***	-0.074***	-0.077***	-0.069***	-0.066***	-0.064***	0.014	-0.027**	-0.056***	-0.056***	-0.051***	-0.050***	-0.049***
	(0.009)	(0.011)	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)	(0.010)	(0.011)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
ENEM	0.534***	0.532***						0.547***	0.546***					
	(0.004)	(0.004)						(0.005)	(0.005)					
P-value (Female × Priority)	0.267													
$\bar{R}^2$	0.352	0.363	0.591	0.594	0.594	0.621	0.621	0.351	0.360	0.596	0.599	0.599	0.625	0.626
Number of observations	117,096	117,096	117,096	117,096	117,096	117,096	117,096	102,948	102,948	102,948	102,948	102,948	102,948	102,948
Number of applicants	19,516	19,516	19,516	19,516	19,516	19,516	19,516	17,158	17,158	17,158	17,158	17,158	17,158	17,158
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, for whom we have information on whether they were taking the UNICAMP exam for the first time. 'First time UNICAMP' is a dummy variable indicating if it is the first time the individual has applied to UNICAMP. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%. 'P-value (Female × Priority)' is the p-value of the test of equality of the 'Female × Priority coefficient' in columns (7) (First time UNICAMP, main specification) and (14) (Not first time, main specification). To test the equality, we estimate pooled regressions, including both subsamples and interacting all regressors with the 'First time UNICAMP' dummy variable.

Table O.23: Priority Subjects and Gender Performance Gap: Preparatory course

	Preparatory course							No preparatory course						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Dependent variable: Phase 2 normalized subject-specific scores														
Female	-0.207***	-0.088***						-0.223***	-0.130***					
	(0.007)	(0.010)						(0.012)	(0.016)					
Priority	0.498***	0.592***	0.555***	0.556***	0.595***	0.526***	0.543***	0.477***	0.594***	0.551***	0.549***	0.584***	0.523***	0.530***
	(0.005)	(0.006)	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.008)	(0.011)	(0.011)	(0.011)	(0.012)	(0.011)	(0.013)
Female × Priority	0.009	-0.042***	-0.061***	-0.062***	-0.055***	-0.054***	-0.052***	-0.015	-0.077***	-0.074***	-0.077***	-0.071***	-0.065***	-0.064***
	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)	(0.013)	(0.015)	(0.015)	(0.015)	(0.015)	(0.014)	(0.014)
ENEM	0.536***	0.534***						0.556***	0.554***					
	(0.004)	(0.004)						(0.006)	(0.006)					
P-value (Female × Priority)	0.471													
$\bar{R}^2$	0.346	0.358	0.584	0.587	0.587	0.615	0.615	0.371	0.378	0.621	0.624	0.624	0.647	0.647
Number of observations	157,884	157,884	157,884	157,884	157,884	157,884	157,884	62,250	62,250	62,250	62,250	62,250	62,250	62,250
Number of applicants	26,314	26,314	26,314	26,314	26,314	26,314	26,314	10,375	10,375	10,375	10,375	10,375	10,375	10,375
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, for whom we have information on whether they took a preparatory course. The preparatory course variable is self-reported information about whether applicants have attended a pre-college entrance exam preparatory course. We create a binary variable equal to one if they attended a preparatory course and zero otherwise. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%. 'P-value (Female × Priority)' is the p-value of the test of equality of the 'Female × Priority coefficient' in columns (7) (Preparatory course, main specification) and (14) (No preparatory course, main specification). To test the equality, we estimate pooled regressions, including both subsamples and interacting all regressors with the 'Preparatory course' dummy variable.

Table O.24: Priority Subjects and Gender Performance Gap: School Location

	Campinas metropolitan region							Other cities						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Dependent variable: Phase 2 normalized subject-specific scores														
Female	-0.195***	-0.064***						-0.206***	-0.093***					
	(0.014)	(0.019)						(0.007)	(0.010)					
Priority	0.413***	0.605***	0.565***	0.566***	0.605***	0.540***	0.561***	0.508***	0.580***	0.544***	0.545***	0.581***	0.515***	0.528***
	(0.011)	(0.013)	(0.013)	(0.013)	(0.014)	(0.014)	(0.015)	(0.005)	(0.006)	(0.006)	(0.006)	(0.007)	(0.006)	(0.007)
Female × Priority	0.066***	-0.061***	-0.062***	-0.070***	-0.067***	-0.067***	-0.064***	-0.013*	-0.048***	-0.063***	-0.063***	-0.054***	-0.053***	-0.052***
	(0.016)	(0.017)	(0.017)	(0.017)	(0.017)	(0.016)	(0.016)	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)
ENEM	0.492***	0.490***						0.540***	0.539***					
	(0.007)	(0.007)						(0.004)	(0.004)					
P-value (Female × Priority)	0.481													
$\bar{R}^2$	0.355	0.384	0.630	0.633	0.634	0.661	0.661	0.335	0.342	0.575	0.577	0.577	0.604	0.605
Number of observations	41,742	41,742	41,742	41,742	41,742	41,742	41,742	164,952	164,952	164,952	164,952	164,952	164,952	164,952
Number of applicants	6,957	6,957	6,957	6,957	6,957	6,957	6,957	27,492	27,492	27,492	27,492	27,492	27,492	27,492
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, for whom we have information on where they attended high school. Campinas metropolitan region is a binary variable indicating if the applicant attended high school in the Campinas metropolitan region. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%. 'P-value (Female × Priority)' is the p-value of the test of equality of the 'Female × Priority coefficient' in columns (7) Campinas metropolitan region, main specification) and (14) (Other cities, main specification). To test the equality, we estimate pooled regressions, including both subsamples and interacting all regressors with the 'Campinas metropolitan region' dummy variable.

Table O.25: Priority Subjects and Gender Performance Gap: Public × Private Schools

	Public school							Private school						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Dependent variable: Phase 2 normalized subject-specific scores														
Female	-0.271***	-0.144***						-0.186***	-0.079***					
	(0.012)	(0.017)						(0.007)	(0.010)					
Priority	0.483***	0.681***	0.630***	0.628***	0.679***	0.592***	0.606***	0.494***	0.556***	0.524***	0.526***	0.558***	0.500***	0.515***
	(0.010)	(0.012)	(0.011)	(0.011)	(0.013)	(0.012)	(0.014)	(0.005)	(0.006)	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)
Female × Priority	0.007	-0.087***	-0.067***	-0.074***	-0.066***	-0.062***	-0.061***	-0.008	-0.045***	-0.062***	-0.061***	-0.053***	-0.054***	-0.052***
	(0.015)	(0.016)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)	(0.008)	(0.008)
ENEM	0.476***	0.472***						0.550***	0.549***					
	(0.006)	(0.006)						(0.004)	(0.004)					
P-value (Female × Priority)	0.577													
$\bar{R}^2$	0.349	0.380	0.599	0.604	0.604	0.636	0.636	0.334	0.340	0.575	0.577	0.577	0.602	0.602
Number of observations	54,150	54,150	54,150	54,150	54,150	54,150	54,150	154,464	154,464	154,464	154,464	154,464	154,464	154,464
Number of applicants	9,025	9,025	9,025	9,025	9,025	9,025	9,025	25,744	25,744	25,744	25,744	25,744	25,744	25,744
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, for whom we have information on public or private high school attendance. Public school encompasses all applicants who attended all grades in a public high school, while private school represents candidates who attended all grades in private schools. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%. 'P-value (Female × Priority)' is the p-value of the test of equality of the 'Female × Priority coefficient' in columns (7) (Public school, main specification) and (14) (Private school, main specification). To test the equality, we estimate pooled regressions, including both subsamples and interacting all regressors with a dummy variable that equals one for applicants that only attended public high schools and zero for applicants that only attended private high schools.

Table O.26: Priority Subjects and Gender Performance Gap: At Least One Parent Has a Higher Education Degree

	At least one parent has higher education degree							No parent has higher education degree						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Dependent variable: Phase 2 normalized subject-specific scores														
Female	-0.184***	-0.070***						-0.249***	-0.140***					
	(0.008)	(0.010)						(0.010)	(0.014)					
Priority	0.503***	0.562***	0.528***	0.529***	0.561***	0.501***	0.514***	0.463***	0.637***	0.594***	0.594***	0.640***	0.563***	0.579***
	(0.005)	(0.007)	(0.006)	(0.006)	(0.007)	(0.007)	(0.008)	(0.008)	(0.010)	(0.009)	(0.009)	(0.010)	(0.010)	(0.011)
Female × Priority	-0.016*	-0.045***	-0.059***	-0.059***	-0.051***	-0.050***	-0.048***	0.033***	-0.068***	-0.071***	-0.076***	-0.069***	-0.067***	-0.066***
	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)	(0.012)	(0.012)
ENEM	0.549***	0.548***						0.504***	0.501***					
	(0.004)	(0.004)						(0.005)	(0.005)					
P-value (Female × Priority)	0.216													
$\bar{R}^2$	0.329	0.335	0.572	0.574	0.575	0.600	0.601	0.356	0.378	0.604	0.607	0.608	0.637	0.637
Number of observations	143,172	143,172	143,172	143,172	143,172	143,172	143,172	76,236	76,236	76,236	76,236	76,236	76,236	76,236
Number of applicants	23,862	23,862	23,862	23,862	23,862	23,862	23,862	12,706	12,706	12,706	12,706	12,706	12,706	12,706
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, for whom we have information on parental schooling levels. At least one parent has higher education degree is a dummy variable indicating if the mother or father of the applicant has a higher education degree. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%. 'P-value (Female × Priority)' is the p-value of the test of equality of the 'Female × Priority coefficient' in columns (7) (At least one parent has higher education degree, main specification) and (14) (No parent has higher education degree, main specification). To test the equality, we estimate pooled regressions, including both subsamples and interacting all regressors with the 'At least one parent has higher education degree' dummy variable.

Table O.27: Heterogeneity Across Exam Days

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Female × Priority × Exam day 1	0.042***	-0.100***	-0.015	-0.018	-0.015	-0.011	-0.013
	(0.013)	(0.015)	(0.014)	(0.014)	(0.014)	(0.013)	(0.013)
Female × Priority × Exam day 2	-0.137***	-0.030**	-0.017	-0.022	-0.015	-0.017	-0.017
	(0.012)	(0.014)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Female × Priority × Exam day 3	-0.291***	-0.157***	-0.132***	-0.128***	-0.123***	-0.121***	-0.118***
	(0.013)	(0.017)	(0.015)	(0.015)	(0.015)	(0.014)	(0.014)
Female × Priority × Exam day 4	-0.175***	-0.064***	-0.092***	-0.088***	-0.083***	-0.085***	-0.082***
	(0.011)	(0.017)	(0.016)	(0.016)	(0.016)	(0.015)	(0.015)
Priority × Exam day 1	0.574***	0.641***	0.488***	0.492***	0.524***	0.450***	0.464***
	(0.011)	(0.012)	(0.010)	(0.010)	(0.011)	(0.010)	(0.011)
Priority × Exam day 2	0.676***	0.634***	0.541***	0.533***	0.560***	0.505***	0.517***
	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Priority × Exam day 3	0.551***	0.579***	0.622***	0.626***	0.654***	0.576***	0.581***
	(0.007)	(0.011)	(0.009)	(0.009)	(0.010)	(0.009)	(0.010)
Priority × Exam day 4	0.374***	0.447***	0.573***	0.582***	0.611***	0.554***	0.560***
	(0.006)	(0.012)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
ENEM scores	0.532***	0.533***					
	(0.003)	(0.003)					
$\bar{R}^2$	0.336	0.348	0.572	0.574	0.574	0.600	0.600
Number of observations	258,531	258,531	258,531	258,531	258,531	258,531	258,531
Number of applicants	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Female	Yes	Yes	No	No	No	No	No
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'Exam day' refers to one of the four days on which P_2 occurs. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include a gender dummy ('Female'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.28: Performance by Gender, Subject, and Exam Day

	Day 1		Day 2		Day 3		Day 4
	Port	Bio	Chem	Hist	Phys	Geog	Math
Men							
Only priority	0.287***	0.495***	0.322***	0.617***	0.374***	0.410***	0.415***
	(0.025)	(0.013)	(0.013)	(0.016)	(0.010)	(0.043)	(0.012)
Only other priority	0.107***	-0.279***	-0.492***	0.241***	-0.380***	-0.375***	
	(0.016)	(0.020)	(0.014)	(0.014)	(0.034)	(0.012)	
Both priorities	0.244	-0.142					
	(0.264)	(0.215)					
ENEM	0.411***	0.370***	0.398***	0.334***	0.345***	0.411***	0.523***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Phase 1 scores	0.251***	0.393***	0.393***	0.357***	0.485***	0.236***	0.236***
	(0.006)	(0.005)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)
$\bar{R}^2$	0.273	0.516	0.545	0.380	0.547	0.285	0.397
Number of observations	20,971	20,971	20,971	20,971	20,971	20,971	20,971
Proportion with no priority test today	0.760	0.760	0.667	0.667	0.443	0.443	0.290
P-value (across subjects)	0.000						
Women							
Only priority	0.216***	0.454***	0.370***	0.524***	0.251***	0.450***	0.346***
	(0.020)	(0.012)	(0.012)	(0.015)	(0.012)	(0.052)	(0.012)
Only other priority	0.009	-0.250***	-0.405***	0.226***	-0.422***	-0.396***	
	(0.015)	(0.016)	(0.012)	(0.015)	(0.039)	(0.015)	
Both priorities	0.005	0.204***					
	(0.056)	(0.045)					
ENEM	0.437***	0.390***	0.362***	0.379***	0.327***	0.434***	0.483***
	(0.007)	(0.006)	(0.005)	(0.007)	(0.005)	(0.007)	(0.006)
Phase 1 scores	0.240***	0.360***	0.365***	0.342***	0.446***	0.252***	0.271***
	(0.007)	(0.006)	(0.006)	(0.007)	(0.005)	(0.007)	(0.006)
$\bar{R}^2$	0.319	0.595	0.616	0.442	0.579	0.372	0.478
Number of observations	15,962	15,962	15,962	15,962	15,962	15,962	15,962
Proportion with no priority test today	0.450	0.450	0.498	0.498	0.754	0.754	0.613
P-value (across subjects)	0.000						
Differences							
Only priority	-0.071**	-0.041**	0.047***	-0.093***	-0.123***	0.040	-0.069***
	(0.032)	(0.018)	(0.018)	(0.022)	(0.015)	(0.067)	(0.017)
Only other priority	-0.098***	0.029	0.087***	-0.016	-0.042	-0.021	
	(0.022)	(0.026)	(0.019)	(0.021)	(0.053)	(0.019)	
Both priorities	-0.239	0.346					
	(0.268)	(0.217)					
ENEM	0.027***	0.020**	-0.036***	0.045***	-0.018**	0.023**	-0.040***
	(0.009)	(0.008)	(0.008)	(0.009)	(0.008)	(0.009)	(0.008)
P1 scores	-0.012	-0.033***	-0.028***	-0.015*	-0.039***	0.016*	0.035***
	(0.009)	(0.008)	(0.008)	(0.009)	(0.008)	(0.009)	(0.008)
P-value (across gender)	0.000	0.000	0.000	0.000	0.000	0.005	0.000
P-value (across gender and subjects)	0.000						

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year for all subjects covered in Phase 2 that can be priority subjects (biology, chemistry, geography, history, mathematics, physics and Portuguese). 'Only priority' is a dummy variable indicating if the subject is the only priority on a given test day. 'Only other priority' is a dummy variable indicating if the other subject tested on the same day is a priority subject. 'Both priorities' is a dummy variable indicating if both subjects are priorities on a given test day. The baseline category is not having either subject as a priority on a given test day. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized so that the mean is zero and the s.d. is one for each year. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized such that the mean is zero and the s.d. is one for each subject-year. Panel A reports the results for men, and Panel B reports the results for women. Panel C reports the difference between the coefficients of the previous panels. 'P-value (across subjects)' is the p-value of the test of equality of the coefficients across subjects for each gender. 'P-value (across gender)' is the p-value of the test of equality of the coefficients for men and women. 'P-value (across gender and subjects)' is the p-value of the test of equality of the coefficients for men and women across subjects. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.29: Women's Performance, By Subject and Exam Day (All P_1 subject scores)

	Day 1		Day 2		Day 3		Day 4
	Port	Bio	Chem	Hist	Phys	Geog	Math
Men							
Only priority	0.293***	0.396***	0.257***	0.555***	0.331***	0.513***	0.373***
	(0.020)	(0.011)	(0.012)	(0.015)	(0.011)	(0.049)	(0.010)
Only other priority	-0.093***	-0.142***	-0.357***	0.040***	-0.331***	-0.282***	
	(0.015)	(0.015)	(0.012)	(0.015)	(0.035)	(0.015)	
Both priorities	0.012	0.231***					
	(0.053)	(0.041)					
ENEM	0.246***	0.220***	0.211***	0.227***	0.163***	0.258***	0.236***
	(0.008)	(0.006)	(0.006)	(0.007)	(0.006)	(0.008)	(0.006)
P1 scores Bio	0.086***	0.261***	0.127***	0.155***	0.124***	0.156***	0.070***
	(0.008)	(0.006)	(0.005)	(0.007)	(0.005)	(0.007)	(0.006)
P1 scores Chem	0.081***	0.141***	0.252***	0.058***	0.245***	0.032***	0.215***
	(0.008)	(0.006)	(0.006)	(0.008)	(0.006)	(0.008)	(0.006)
P1 scores Geog	0.076***	0.076***	0.035***	0.141***	0.025***	0.176***	0.026***
	(0.007)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)
P1 scores Hist	0.130***	0.084***	0.034***	0.257***	0.029***	0.190***	0.007
	(0.007)	(0.005)	(0.005)	(0.006)	(0.005)	(0.007)	(0.005)
P1 scores Math	0.068***	0.025***	0.059***	0.004	0.071***	0.001	0.157***
	(0.007)	(0.005)	(0.005)	(0.006)	(0.005)	(0.007)	(0.005)
P1 scores Phys	0.063***	0.153***	0.193***	0.042***	0.309***	0.010	0.266***
	(0.008)	(0.006)	(0.006)	(0.007)	(0.005)	(0.007)	(0.006)
P1 scores Port	0.227***	0.094***	0.067***	0.175***	0.076***	0.136***	0.071***
	(0.007)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)
$\bar{R}^2$	0.381	0.658	0.676	0.519	0.662	0.452	0.623
Number of observations	15,962	15,962	15,962	15,962	15,962	15,962	15,962
Proportion with no priority test today	0.450	0.450	0.498	0.498	0.754	0.754	0.613
F-test (P1 scores)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
P-value (across subjects)	0.000						

Notes: Our sample includes 2001-2004 female applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year for all subjects covered in Phase 2 that can be priority subjects (biology, chemistry, geography, history, mathematics, physics and Portuguese). 'Only priority' is a dummy variable indicating if the subject is the only priority on a given test day. 'Only other priority' is a dummy variable indicating if the other subject tested on the same day is a priority subject. 'Both priorities' is a dummy variable indicating if both subjects are priorities on a given test day. The baseline category is not having either subject as a priority on a given test day. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized so that the mean is zero and the s.d. is one for each year. 'P1 scores' are the applicant's relative P_1 performance in each subject (biology, chemistry, geography, history, mathematics, physics and Portuguese), i.e., the applicants' normalized P_1 subject score minus their gender-year group's average in each subject. P_1 scores are first normalized such that the mean is zero and the s.d. is one for each subject-year. 'P-value (across subjects)' is the p-value of the test of equality of the coefficients across subjects. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.30: Men's Performance, By Subject and Exam Day (All P_1 subject scores)

	Day 1		Day 2		Day 3		Day 4
	Port	Bio	Chem	Hist	Phys	Geog	Math
Men							
Only priority	0.353***	0.418***	0.222***	0.610***	0.435***	0.434***	0.423***
	(0.025)	(0.012)	(0.012)	(0.015)	(0.009)	(0.040)	(0.010)
Only other priority	-0.017	-0.180***	-0.461***	0.077***	-0.301***	-0.285***	
	(0.015)	(0.020)	(0.013)	(0.014)	(0.031)	(0.011)	
Both priorities	0.175	-0.069					
	(0.252)	(0.200)					
ENEM	0.231***	0.218***	0.237***	0.209***	0.184***	0.255***	0.243***
	(0.007)	(0.006)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)
P1 scores Bio	0.095***	0.304***	0.143***	0.146***	0.118***	0.155***	0.075***
	(0.007)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)
P1 scores Chem	0.076***	0.148***	0.289***	0.033***	0.258***	0.005	0.250***
	(0.007)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)
P1 scores Geog	0.057***	0.058***	0.029***	0.124***	0.013***	0.164***	0.010**
	(0.006)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)
P1 scores Hist	0.153***	0.087***	0.036***	0.281***	0.033***	0.191***	0.024***
	(0.006)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)
P1 scores Math	0.069***	0.004	0.051***	0.002	0.065***	0.023***	0.133***
	(0.006)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)	(0.005)
P1 scores Phys	0.063***	0.136***	0.224***	0.032***	0.346***	0.009	0.305***
	(0.007)	(0.006)	(0.006)	(0.007)	(0.005)	(0.007)	(0.006)
P1 scores Port	0.242***	0.102***	0.087***	0.172***	0.084***	0.123***	0.085***
	(0.006)	(0.005)	(0.005)	(0.005)	(0.004)	(0.006)	(0.005)
$\bar{R}^2$	0.339	0.578	0.613	0.449	0.635	0.367	0.579
Number of observations	20,971	20,971	20,971	20,971	20,971	20,971	20,971
Proportion with no priority test today	0.760	0.760	0.667	0.667	0.443	0.443	0.290
F-test (P1 scores)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
P-value (across subjects)	0.000						

Notes: Our sample includes 2001-2004 male applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year for all subjects covered in Phase 2 that can be priority subjects (biology, chemistry, geography, history, mathematics, physics and Portuguese). 'Only priority' is a dummy variable indicating if the subject is the only priority on a given test day. 'Only other priority' is a dummy variable indicating if the other subject tested on the same day is a priority subject. 'Both priorities' is a dummy variable indicating if both subjects are priorities on a given test day. The baseline category is not having either subject as a priority on a given test day. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized so that the mean is zero and the s.d. is one for each year. 'P1 scores' are the applicant's relative P_1 performance in each subject (biology, chemistry, geography, history, mathematics, physics and Portuguese), i.e., the applicants' normalized P_1 subject score minus their gender-year group's average in each subject. P_1 scores are first normalized such that the mean is zero and the s.d. is one for each subject-year. 'P-value (across subjects)' is the p-value of the test of equality of the coefficients across subjects. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.31: Gender Gaps in Performance, By Subject and Exam Day (All P_1 subject scores)

	Day 1		Day 2		Day 3		Day 4
	Port	Bio	Chem	Hist	Phys	Geog	Math
Gender Differences (Women - Men)							
Only priority	-0.061*	-0.021	0.036**	-0.055**	-0.104***	0.079	-0.050***
	(0.032)	(0.017)	(0.017)	(0.021)	(0.014)	(0.063)	(0.015)
Only other priority	-0.076***	0.039	0.104***	-0.037*	-0.030	0.003	
	(0.021)	(0.025)	(0.018)	(0.020)	(0.048)	(0.019)	
Both priorities	-0.163	0.300					
	(0.255)	(0.201)					
ENEM	0.015	0.001	-0.027***	0.018*	-0.022***	0.003	-0.006
	(0.011)	(0.009)	(0.008)	(0.010)	(0.008)	(0.011)	(0.009)
P1 scores Bio	-0.008	-0.043***	-0.017**	0.009	0.007	0.001	-0.005
	(0.010)	(0.008)	(0.008)	(0.009)	(0.007)	(0.010)	(0.008)
P1 scores Chem	0.004	-0.007	-0.037***	0.026***	-0.013*	0.028***	-0.035***
	(0.011)	(0.008)	(0.008)	(0.010)	(0.008)	(0.010)	(0.008)
P1 scores Geog	0.019**	0.018**	0.006	0.017**	0.012*	0.012	0.016**
	(0.009)	(0.007)	(0.007)	(0.008)	(0.007)	(0.009)	(0.007)
P1 scores Hist	-0.023**	-0.003	-0.003	-0.025***	-0.005	-0.001	-0.017**
	(0.009)	(0.007)	(0.007)	(0.009)	(0.007)	(0.009)	(0.007)
P1 scores Math	-0.001	0.021***	0.008	0.001	0.006	-0.022**	0.024***
	(0.009)	(0.007)	(0.007)	(0.008)	(0.007)	(0.009)	(0.007)
P1 scores Phys	0.001	0.017**	-0.032***	0.010	-0.038***	0.002	-0.040***
	(0.011)	(0.008)	(0.008)	(0.010)	(0.008)	(0.010)	(0.008)
P1 scores Port	-0.016*	-0.008	-0.020***	0.003	-0.008	0.013	-0.014**
	(0.009)	(0.007)	(0.007)	(0.008)	(0.006)	(0.009)	(0.007)
P-value (across gender)	0.000	0.000	0.000	0.000	0.000	0.010	0.000
P-value (across gender and subjects)	0.000						

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year for all subjects covered in Phase 2 that can be priority subjects (biology, chemistry, geography, history, mathematics, physics and Portuguese). 'Only priority' is a dummy variable indicating if the subject is the only priority on a given test day. 'Only other priority' is a dummy variable indicating if the other subject tested on the same day is a priority subject. 'Both priorities' is a dummy variable indicating if both subjects are priorities on a given test day. The baseline category is not having either subject as a priority on a given test day. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized so that the mean is zero and the s.d. is one for each year. 'P1 scores' are the applicant's relative P_1 performance in each subject (biology, chemistry, geography, history, mathematics, physics and Portuguese), i.e., the applicants' normalized P_1 subject score minus their gender-year group's average in each subject. P_1 scores are first normalized such that the mean is zero and the s.d. is one for each subject-year. 'P-value (across gender)' is the p-value of the test of equality of the coefficients for men and women. 'P-value (across gender and subjects)' is the p-value of the test of equality of the coefficients for men and women across subjects. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.32: Performance by Gender, Subject, and Exam Day (Excluding Medicine)

	Day 1		Day 2		Day 3		Day 4
	Port	Bio	Chem	Hist	Phys	Geog	Math
Men							
Only priority	0.285***	0.326***	0.213***	0.621***	0.546***	0.454***	0.652***
	(0.025)	(0.017)	(0.017)	(0.016)	(0.010)	(0.043)	(0.014)
Only other priority	-0.067***	-0.283***	-0.489***	-0.031	-0.279***	-0.320***	
	(0.021)	(0.020)	(0.014)	(0.019)	(0.033)	(0.013)	
Both priorities	0.236	-0.153					
	(0.263)	(0.216)					
ENEM	0.394***	0.354***	0.383***	0.310***	0.291***	0.392***	0.472***
	(0.007)	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)	(0.006)
Phase 1 scores	0.246***	0.395***	0.399***	0.348***	0.452***	0.232***	0.221***
	(0.006)	(0.006)	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)
$\bar{R}^2$	0.241	0.432	0.501	0.353	0.564	0.242	0.418
Number of observations	18,920	18,920	18,920	18,920	18,920	18,920	18,920
Proportion with no priority test today	0.842	0.842	0.739	0.739	0.382	0.382	0.213
P-value (across subjects)	0.000						
Women							
Only priority	0.212***	0.345***	0.257***	0.530***	0.394***	0.497***	0.493***
	(0.020)	(0.013)	(0.015)	(0.015)	(0.012)	(0.052)	(0.012)
Only other priority	-0.100***	-0.258***	-0.399***	-0.036*	-0.333***	-0.344***	
	(0.017)	(0.016)	(0.012)	(0.019)	(0.037)	(0.016)	
Both priorities	0.004	0.198***					
	(0.056)	(0.045)					
ENEM	0.407***	0.364***	0.335***	0.348***	0.249***	0.399***	0.403***
	(0.007)	(0.006)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)
Phase 1 scores	0.224***	0.358***	0.381***	0.328***	0.404***	0.244***	0.253***
	(0.008)	(0.007)	(0.006)	(0.007)	(0.005)	(0.007)	(0.006)
$\bar{R}^2$	0.261	0.496	0.530	0.399	0.548	0.307	0.461
Number of observations	13,573	13,573	13,573	13,573	13,573	13,573	13,573
Proportion with no priority test today	0.529	0.529	0.586	0.586	0.711	0.711	0.544
P-value (across subjects)	0.000						
Differences							
Only priority	-0.073**	0.019	0.043*	-0.090***	-0.153***	0.043	-0.159***
	(0.032)	(0.022)	(0.023)	(0.022)	(0.016)	(0.068)	(0.018)
Only other priority	-0.034	0.024	0.091***	-0.004	-0.053	-0.024	
	(0.027)	(0.026)	(0.019)	(0.027)	(0.051)	(0.020)	
Both priorities	-0.232	0.351					
	(0.267)	(0.218)					
ENEM	0.013	0.010	-0.049***	0.038***	-0.042***	0.007	-0.069***
	(0.010)	(0.009)	(0.008)	(0.009)	(0.008)	(0.010)	(0.009)
P1 scores	-0.023**	-0.037***	-0.018**	-0.020**	-0.048***	0.012	0.032***
	(0.010)	(0.009)	(0.009)	(0.009)	(0.008)	(0.010)	(0.009)
P-value (across gender)	0.011	0.001	0.000	0.000	0.000	0.339	0.000
P-value (across gender and subjects)	0.000						

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, excluding medicine applicants (UNICAMP and FAMERP). The dependent variable is P_2 subject-specific scores normalized to have a mean of zero and a standard deviation (s.d.) of one for each subject-year for all subjects covered in Phase 2 that can be priority subjects (biology, chemistry, geography, history, mathematics, physics and Portuguese). 'Only priority' is a dummy variable indicating if the subject is the only priority on a given test day. 'Only other priority' is a dummy variable indicating if the other subject tested on the same day is a priority subject. 'Both priorities' is a dummy variable indicating if both subjects are priorities on a given test day. The baseline category is not having either subject as a priority on a given test day. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized so that the mean is zero and the s.d. is one for each year. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized such that the mean is zero and the s.d. is one for each subject-year. Panel A reports the results for men, and Panel B reports the results for women. Panel C reports the difference between the coefficients of the previous panels. 'P-value (across subjects)' is the p-value of the test of equality of the coefficients across subjects for each gender. 'P-value (across gender)' is the p-value of the test of equality of the coefficients for men and women. 'P-value (across gender and subjects)' is the p-value of the test of equality of the coefficients for men and women across subjects. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.33: Attempted Items by Gender, Subject, and Exam Day

	Day 1		Day 2		Day 3		Day 4
	Port	Bio	Chem	Hist	Phys	Geog	Math
Men							
Only priority	0.141***	0.071***	0.262***	0.232***	0.491***	0.116**	0.789***
	(0.052)	(0.023)	(0.042)	(0.028)	(0.036)	(0.057)	(0.041)
Only other priority	-0.066**	-0.321***	-0.625***	0.010	-1.039***	-0.142***	
	(0.031)	(0.038)	(0.049)	(0.024)	(0.128)	(0.016)	
Both priorities	-0.340	0.323					
	(0.568)	(0.422)					
ENEM	0.147***	0.153***	0.283***	0.085***	0.190***	0.078***	0.659***
	(0.014)	(0.011)	(0.020)	(0.011)	(0.022)	(0.009)	(0.022)
Phase 1 scores	0.119***	0.183***	0.348***	0.128***	0.865***	0.071***	0.261***
	(0.013)	(0.010)	(0.018)	(0.010)	(0.022)	(0.008)	(0.020)
$\bar{R}^2$	0.029	0.112	0.144	0.043	0.284	0.031	0.165
Number of observations	9,104	9,104	9,104	9,104	9,104	9,104	9,104
Proportion with no priority test today	0.760	0.760	0.667	0.667	0.443	0.443	0.290
P-value (across subjects)	0.000						
Women							
Only priority	0.126***	0.149***	0.233***	0.256***	0.361***	0.165**	0.565***
	(0.032)	(0.024)	(0.045)	(0.028)	(0.052)	(0.070)	(0.045)
Only other priority	-0.003	-0.248***	-0.623***	0.048*	-1.024***	-0.207***	
	(0.024)	(0.031)	(0.046)	(0.027)	(0.174)	(0.021)	
Both priorities	-0.003	0.114					
	(0.108)	(0.107)					
ENEM	0.057***	0.093***	0.146***	0.047***	0.051**	0.045***	0.476***
	(0.011)	(0.012)	(0.020)	(0.012)	(0.025)	(0.009)	(0.023)
Phase 1 scores	0.075***	0.161***	0.333***	0.112***	0.863***	0.081***	0.226***
	(0.012)	(0.012)	(0.023)	(0.011)	(0.025)	(0.009)	(0.023)
$\bar{R}^2$	0.015	0.103	0.132	0.034	0.217	0.036	0.117
Number of observations	7,280	7,280	7,280	7,280	7,280	7,280	7,280
Proportion with no priority test today	0.450	0.450	0.498	0.498	0.754	0.754	0.613
P-value (across subjects)	0.000						
Differences							
Only priority	-0.015	0.078**	-0.029	0.024	-0.130**	0.049	-0.223***
	(0.060)	(0.033)	(0.062)	(0.039)	(0.062)	(0.091)	(0.061)
Only other priority	0.062	0.073	0.002	0.039	0.015	-0.065**	
	(0.040)	(0.050)	(0.068)	(0.036)	(0.212)	(0.026)	
Both priorities	0.337	-0.208					
	(0.532)	(0.445)					
ENEM	-0.090***	-0.060***	-0.136***	-0.038**	-0.138***	-0.032**	-0.183***
	(0.018)	(0.016)	(0.029)	(0.016)	(0.033)	(0.013)	(0.032)
P1 scores	-0.044**	-0.022	-0.015	-0.016	-0.002	0.010	-0.035
	(0.018)	(0.016)	(0.029)	(0.015)	(0.033)	(0.012)	(0.031)
P-value (across gender)	0.000	0.000	0.000	0.045	0.000	0.007	0.000
P-value (across gender and subjects)	0.000						

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is the number of questions attempted in a given subject. We include all subjects covered in Phase 2 that can be priority subjects (biology, chemistry, geography, history, mathematics, physics and Portuguese). 'Only priority' is a dummy variable indicating if the subject is the only priority on a given test day. 'Only other priority' is a dummy variable indicating if the other subject tested on the same day is a priority subject. 'Both priorities' is a dummy variable indicating if both subjects are priorities on a given test day. The baseline category is not having either subject as a priority on a given test day. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized so that the mean is zero and the standard deviation (s.d.) is one for each year. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized such that the mean is zero and the s.d. is one for each subject-year. Panel A reports the results for men, and Panel B reports the results for women. Panel C reports the difference between the coefficients of the previous panels. 'P-value (across subjects)' is the p-value of the test of equality of the coefficients across subjects for each gender. 'P-value (across gender)' is the p-value of the test of equality of the coefficients for men and women. 'P-value (across gender and subjects)' is the p-value of the test of equality of the coefficients for men and women across subjects. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.34: Attempted Items by Gender, Subject, and Exam Day (Excluding Medicine)

	Day 1		Day 2		Day 3		Day 4
	Port	Bio	Chem	Hist	Phys	Geog	Math
Men							
Only priority	0.136**	0.153***	0.362***	0.231***	0.704***	0.114*	1.281***
	(0.053)	(0.033)	(0.061)	(0.029)	(0.041)	(0.060)	(0.050)
Only other priority	-0.198***	-0.314***	-0.609***	-0.110***	-0.901***	-0.145***	
	(0.043)	(0.040)	(0.052)	(0.034)	(0.133)	(0.018)	
Both priorities	-0.354	0.311					
	(0.578)	(0.444)					
ENEM	0.134***	0.162***	0.289***	0.072***	0.112***	0.080***	0.544***
	(0.015)	(0.012)	(0.022)	(0.011)	(0.024)	(0.010)	(0.024)
Phase 1 scores	0.122***	0.201***	0.384***	0.130***	0.846***	0.076***	0.238***
	(0.014)	(0.011)	(0.020)	(0.011)	(0.023)	(0.009)	(0.022)
$\bar{R}^2$	0.028	0.105	0.130	0.041	0.285	0.026	0.183
Number of observations	8,118	8,118	8,118	8,118	8,118	8,118	8,118
Proportion with no priority test today	0.842	0.842	0.739	0.739	0.382	0.382	0.213
P-value (across subjects)	0.000						
Women							
Only priority	0.118***	0.189***	0.300***	0.255***	0.487***	0.165**	0.771***
	(0.033)	(0.029)	(0.059)	(0.029)	(0.058)	(0.075)	(0.050)
Only other priority	-0.062**	-0.235***	-0.597***	-0.083**	-0.932***	-0.204***	
	(0.028)	(0.034)	(0.050)	(0.035)	(0.185)	(0.023)	
Both priorities	-0.007	0.113					
	(0.112)	(0.115)					
ENEM	0.036***	0.107***	0.143***	0.028**	-0.042	0.045***	0.362***
	(0.012)	(0.014)	(0.023)	(0.013)	(0.029)	(0.011)	(0.027)
Phase 1 scores	0.074***	0.187***	0.414***	0.111***	0.863***	0.090***	0.219***
	(0.014)	(0.014)	(0.027)	(0.013)	(0.028)	(0.010)	(0.026)
$\bar{R}^2$	0.011	0.091	0.112	0.032	0.195	0.031	0.102
Number of observations	6,180	6,180	6,180	6,180	6,180	6,180	6,180
Proportion with no priority test today	0.529	0.529	0.586	0.586	0.711	0.711	0.544
P-value (across subjects)	0.000						
Differences							
Only priority	-0.018	0.036	-0.062	0.024	-0.217***	0.052	-0.510***
	(0.062)	(0.044)	(0.085)	(0.041)	(0.069)	(0.095)	(0.071)
Only other priority	0.136***	0.080	0.013	0.027	-0.031	-0.058**	
	(0.051)	(0.053)	(0.072)	(0.049)	(0.222)	(0.029)	
Both priorities	0.347	-0.198					
	(0.548)	(0.472)					
ENEM	-0.097***	-0.055***	-0.146***	-0.044**	-0.155***	-0.035**	-0.182***
	(0.019)	(0.018)	(0.032)	(0.017)	(0.037)	(0.015)	(0.036)
P1 scores	-0.047**	-0.015	0.030	-0.018	0.017	0.014	-0.019
	(0.020)	(0.018)	(0.034)	(0.017)	(0.036)	(0.014)	(0.034)
P-value (across gender)	0.000	0.002	0.000	0.034	0.000	0.013	0.000
P-value (across gender and subjects)	0.000						

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission, excluding medicine applicants (UNICAMP and FAMERP). The dependent variable is the number of questions attempted in a given subject. We include all subjects covered in Phase 2 that can be priority subjects (biology, chemistry, geography, history, mathematics, physics and Portuguese). 'Only priority' is a dummy variable indicating if the subject is the only priority on a given test day. 'Only other priority' is a dummy variable indicating if the other subject tested on the same day is a priority subject. 'Both priorities' is a dummy variable indicating if both subjects are priorities on a given test day. The baseline category is not having either subject as a priority on a given test day. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized so that the mean is zero and the standard deviation (s.d.) is one for each year. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized such that the mean is zero and the s.d. is one for each subject-year. Panel A reports the results for men, and Panel B reports the results for women. Panel C reports the difference between the coefficients of the previous panels. 'P-value (across subjects)' is the p-value of the test of equality of the coefficients across subjects for each gender. 'P-value (across gender)' is the p-value of the test of equality of the coefficients for men and women. 'P-value (across gender and subjects)' is the p-value of the test of equality of the coefficients for men and women across subjects. Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.35: Normalized Phase 2 Scores, Omissions = Predicted IRT Score

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female	-0.269***	-0.145***					
	(0.008)	(0.012)					
Priority	0.466***	0.542***	0.512***	0.507***	0.552***	0.497***	0.503***
	(0.007)	(0.008)	(0.008)	(0.008)	(0.009)	(0.008)	(0.010)
Female × Priority	-0.021**	-0.048***	-0.055***	-0.059***	-0.049***	-0.046***	-0.045***
	(0.010)	(0.011)	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)
ENEM	0.586***	0.585***					
	(0.004)	(0.004)					
$\bar{R}^2$	0.399	0.408	0.586	0.591	0.592	0.617	0.618
Number of observations	98,304	98,304	98,304	98,304	98,304	98,304	98,304
Number of applicants	16,384	16,384	16,384	16,384	16,384	16,384	16,384
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2002 applicants who attended P_1 and P_2 for admission. We use an Item Response Theory (IRT) Graded Response Model to estimate each applicant's predicted IRT score on an omitted question based on their subject-specific ability and the question's difficulty level. We estimate separate models for each exam, i.e., each unique combination of subject and year, jointly for men and women. We then recalculate P_2 scores by replacing each omitted question score with the applicant's predicted IRT score. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.36: Priority Subjects and Gender Performance Gap (Main Results, 2001-2002 Sample)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: Phase 2 normalized subject-specific scores							
Female	-0.251***	-0.142***					
	(0.009)	(0.012)					
Priority	0.481***	0.572***	0.536***	0.533***	0.581***	0.525***	0.531***
	(0.007)	(0.008)	(0.008)	(0.008)	(0.009)	(0.008)	(0.010)
Female × Priority	-0.014	-0.056***	-0.061***	-0.065***	-0.055***	-0.052***	-0.050***
	(0.010)	(0.011)	(0.011)	(0.011)	(0.011)	(0.010)	(0.010)
ENEM	0.579***	0.577***					
	(0.004)	(0.004)					
$\bar{R}^2$	0.393	0.402	0.598	0.604	0.605	0.630	0.631
Number of observations	98,304	98,304	98,304	98,304	98,304	98,304	98,304
Number of applicants	16,384	16,384	16,384	16,384	16,384	16,384	16,384
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2002 applicants who attended P_1 and P_2 for admission. The dependent variable is P_2 subject-specific scores normalized to mean zero and a standard deviation (s.d.) of one for each subject-year for the six subjects covered in both phases (biology, chemistry, geography, history, mathematics, and physics). 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a s.d. of one for each year. Regressions include subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.37: Omitted Questions: Heterogeneity (2001-2002)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable: # omitted questions in Phase 2 per subject							
Female × Priority × Biology	-0.139***	-0.054**	-0.021	-0.029	-0.029	-0.021	-0.018
	(0.022)	(0.026)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)
Female × Priority × Chemistry	0.029	0.059	-0.013	0.012	-0.010	-0.023	-0.032
	(0.030)	(0.044)	(0.043)	(0.043)	(0.043)	(0.043)	(0.043)
Female × Priority × Geography	0.023	0.067	0.352*	0.288	0.272	0.271	0.265
	(0.051)	(0.056)	(0.185)	(0.185)	(0.186)	(0.184)	(0.184)
Female × Priority × History	-0.005	-0.011	-0.033	0.049	0.042	0.033	0.033
	(0.029)	(0.041)	(0.070)	(0.069)	(0.069)	(0.069)	(0.069)
Female × Priority × Mathematics	-0.064	0.267***	0.169**	0.177***	0.166**	0.160**	0.155**
	(0.041)	(0.072)	(0.067)	(0.066)	(0.066)	(0.065)	(0.065)
Female × Priority × Physics	0.156***	0.286***	0.164***	0.138**	0.122**	0.099	0.098
	(0.045)	(0.068)	(0.063)	(0.062)	(0.062)	(0.061)	(0.061)
Priority × Biology	-0.477***	-0.155***	0.259***	0.198***	0.112***	0.130***	0.139***
	(0.015)	(0.017)	(0.022)	(0.021)	(0.023)	(0.023)	(0.025)
Priority × Chemistry	0.189***	-0.363***	-0.375***	-0.299***	-0.302***	-0.314***	-0.311***
	(0.024)	(0.031)	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)
Priority × Geography	-0.328***	-0.192***	-1.556***	-1.289***	-1.198***	-1.160***	-1.155***
	(0.040)	(0.043)	(0.126)	(0.126)	(0.126)	(0.123)	(0.123)
Priority × History	-0.132***	-0.131***	-1.064***	-0.975***	-0.923***	-0.882***	-0.878***
	(0.021)	(0.026)	(0.049)	(0.049)	(0.049)	(0.048)	(0.048)
Priority × Mathematics	0.914***	-0.633***	-1.080***	-1.045***	-1.027***	-1.009***	-0.998***
	(0.024)	(0.052)	(0.049)	(0.048)	(0.048)	(0.047)	(0.047)
Priority × Physics	0.525***	-0.734***	-1.046***	-0.962***	-0.942***	-0.889***	-0.883***
	(0.023)	(0.043)	(0.043)	(0.042)	(0.042)	(0.041)	(0.041)
ENEM	-0.335***	-0.336***					
	(0.010)	(0.010)					
Mean dependent variable	0.75						
Std.dev dependent variable	1.54						
$\bar{R}^2$	0.068	0.161	0.484	0.507	0.508	0.516	0.516
Number of observations	98,304	98,304	98,304	98,304	98,304	98,304	98,304
Number of applicants	16,384	16,384	16,384	16,384	16,384	16,384	16,384
Female	Yes	Yes	No	No	No	No	No
Subject FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Subject-gender FE	No	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	No	No	Yes	Yes	Yes	Yes	Yes
ENEM × Subject FE	No	No	No	Yes	Yes	Yes	Yes
ENEM × Priority	No	No	No	No	Yes	Yes	Yes
Phase 1 scores	No	No	No	No	No	Yes	Yes
Phase 1 scores × Priority	No	No	No	No	No	No	Yes

Notes: Our sample includes 2001-2002 applicants who attended P_1 and P_2 for admission. The dependent variable is the number of questions omitted by an applicant in a given P_2 subject. 'Priority' is a dummy indicating if the subject is a priority in P_2 related to the applicant's first-choice major. 'ENEM' is the applicant's ENEM relative performance, i.e., the applicant's normalized ENEM score minus their gender-year group's average normalized ENEM. Individual ENEM scores are first normalized to have a mean of zero and a standard deviation (s.d.) of one for each year. Regressions include a gender dummy ('Gender FE'), subject dummies ('Subject FE'), subject-gender fixed effects ('Subject-gender FE'), and individual fixed effects ('Individual FE'). 'ENEM × Subject' is a quartic function for the interactions between the relative ENEM performance and subject dummies. 'ENEM × Priority' is a quartic function for the interactions between the relative ENEM performance and the priority subject dummy. 'Phase 1 scores' is the applicant's subject-specific relative P_1 performance, i.e., the applicants' normalized P_1 subject score minus their gender-year group's average. Subject-specific P_1 scores are first normalized to have a mean of zero and a s.d. of one for each subject-year. We use quartic functions to control for the relative P_1 performance ('Phase 1 Scores') and its interaction with 'Priority' ('Phase 1 Scores × Priority'). Cluster-robust standard errors (at the applicant level) are shown in parentheses. * significant at 10%; * significant at 5%; ** significant at 1%.

Table O.38: Alternative Residuals: Including all P_1 Scores × Subject FE, Log (Annual Wages) Seven to 12 Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (7-12 years after admission exam)								
Female	-0.264***	-0.264***	-0.190***	-0.189***	-0.106***	-0.106***	-0.082***	-0.082***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.006		0.006		0.015***		0.014***
		(0.005)		(0.004)		(0.004)		(0.004)
Norm. ENEM scores			0.166***	0.166***			0.099***	0.099***
			(0.004)	(0.004)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.326	10.326	10.326	10.326	10.326	10.326	10.326	10.326
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (7-12 years after admission exam)								
Female	-0.262***	-0.262***	-0.186***	-0.186***	-0.112***	-0.112***	-0.088***	-0.088***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.005		0.005		0.014***		0.014***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.169***	0.169***			0.095***	0.095***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.628	10.628	10.628	10.628	10.628	10.628	10.628	10.628
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in the specification presented in Online Appendix O.15, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.39: Alternative Residuals: Linear P1-Score Function, Log (Annual Wages) Seven to 12 Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (7-12 years after admission exam)								
Female	-0.264***	-0.264***	-0.190***	-0.190***	-0.106***	-0.106***	-0.082***	-0.082***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.003		-0.003		0.018***		0.016***
		(0.005)		(0.005)		(0.004)		(0.004)
Norm. ENEM scores			0.166***	0.166***			0.099***	0.098***
			(0.004)	(0.004)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.326	10.326	10.326	10.326	10.326	10.326	10.326	10.326
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (7-12 years after admission exam)								
Female	-0.262***	-0.262***	-0.186***	-0.186***	-0.112***	-0.112***	-0.088***	-0.088***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.001		-0.004		0.017***		0.015***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.169***	0.169***			0.095***	0.094***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.628	10.628	10.628	10.628	10.628	10.628	10.628	10.628
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in the simpler specification, in which P_2 scores are the response variables and P_1 scores are the control variables. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.40: Alternative Residuals: Excluding Polynomials, Log (Annual Wages) Seven to 12 Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (7-12 years after admission exam)								
Female	-0.264***	-0.264***	-0.190***	-0.189***	-0.106***	-0.106***	-0.082***	-0.082***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.009**		0.009**		0.018***		0.018***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.166***	0.166***			0.099***	0.099***
			(0.004)	(0.004)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.326	10.326	10.326	10.326	10.326	10.326	10.326	10.326
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (7-12 years after admission exam)								
Female	-0.262***	-0.262***	-0.186***	-0.186***	-0.112***	-0.112***	-0.088***	-0.088***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.008*		0.008*		0.017***		0.017***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.169***	0.169***			0.095***	0.095***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.628	10.628	10.628	10.628	10.628	10.628	10.628	10.628
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification excluding the 'Female × Priority' interaction and the 'ENEM × Priority' and 'Phase 1 scores × Priority' polynomials, in which P_2 scores are the response variables. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.41: Alternative Residuals: Adding Coefficient Estimates, Log (Annual Wages) Seven to 12 Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (7-12 years after admission exam)								
Female	-0.264***	-0.263***	-0.190***	-0.189***	-0.106***	-0.107***	-0.082***	-0.082***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.014***		0.013***		0.019***		0.020***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.166***	0.166***			0.099***	0.099***
			(0.004)	(0.004)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.326	10.326	10.326	10.326	10.326	10.326	10.326	10.326
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (7-12 years after admission exam)								
Female	-0.262***	-0.261***	-0.186***	-0.185***	-0.112***	-0.112***	-0.088***	-0.088***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.013***		0.012**		0.019***		0.019***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.169***	0.169***			0.095***	0.095***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.628	10.628	10.628	10.628	10.628	10.628	10.628	10.628
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, adding the 'Priority' coefficients for priority subjects for male students and the 'Priority' and 'Female × Priority' coefficients for female students, in which P_2 scores are the response variables. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.42: Alternative Residuals: Separate regressions by subject and gender, Log (Annual Wages) Seven to 12 Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (7-12 years after admission exam)								
Female	-0.264***	-0.264***	-0.190***	-0.190***	-0.106***	-0.107***	-0.082***	-0.083***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.015***		0.017***		0.015***		0.016***
		(0.004)		(0.004)		(0.004)		(0.004)
Norm. ENEM scores			0.166***	0.166***			0.099***	0.099***
			(0.004)	(0.004)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable	10.215	10.215	10.215	10.215	10.215	10.215	10.215	10.215
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (7-12 years after admission exam)								
Female	-0.262***	-0.262***	-0.186***	-0.186***	-0.112***	-0.112***	-0.088***	-0.089***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.014***		0.016***		0.014***		0.015***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.169***	0.169***			0.095***	0.095***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable	10.518	10.518	10.518	10.518	10.518	10.518	10.518	10.518
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects from separate regressions by gender and subject (excluding language, that never is a priority subject), displayed in Online Appendix Table O.28. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.43: Alternative Residuals: Separate regressions by subject and gender, Control for all P_1 subject scores, Log (Annual Wages) Seven to 12 Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (7-12 years after admission exam)								
Female	-0.264***	-0.264***	-0.190***	-0.190***	-0.106***	-0.107***	-0.082***	-0.083***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.015***		0.017***		0.015***		0.016***
		(0.004)		(0.004)		(0.004)		(0.004)
Norm. ENEM scores			0.166***	0.166***			0.099***	0.099***
			(0.004)	(0.004)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable	10.215	10.215	10.215	10.215	10.215	10.215	10.215	10.215
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (7-12 years after admission exam)								
Female	-0.262***	-0.262***	-0.186***	-0.186***	-0.112***	-0.112***	-0.088***	-0.089***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.014***		0.016***		0.014***		0.015***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.169***	0.169***			0.095***	0.095***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable	10.518	10.518	10.518	10.518	10.518	10.518	10.518	10.518
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects from separate regressions by gender and subject (excluding language, that never is a priority subject), displayed in Online Appendix Tables O.29 and O.30. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.44: Higher Education Degree

	6-14		7-12		Any moment	
	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable: Higher education degree						
Female	0.018***	0.018***	0.020***	0.019***	0.015***	0.015***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Relative priority performance		0.002		0.003**		0.004**
		(0.001)		(0.002)		(0.001)
Norm. ENEM scores	0.009***	0.009***	0.012***	0.012***	0.008***	0.008***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Number of observations	30,992	30,992	29,814	29,814	31,967	31,967
Mean dependent variable (Men)	0.942	0.942	0.929	0.929	0.939	0.939
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between six and 14 years (columns (1) and (2)), seven and 12 years (columns (3) and (4)), and any time between 2002 and 2018 (columns (5) and (6)). The dependent variable is a dummy variable equal to one if the applicant has a higher education degree according to the RAIS dataset. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.45: Formal Employment Participation Six to 14 Years After Admission Exam

	6				7				8			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dependent variables: Formal Employment Participation 6 to 8 years after UNICAMP exam												
Female	-0.023***	-0.022***	-0.047***	0.013**	-0.036***	-0.035***	-0.059***	0.006	-0.033***	-0.032***	-0.055***	0.008
	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)
Relative priority performance		0.012***	0.012***	0.002		0.013***	0.013***	0.002		0.013***	0.013***	0.001
		(0.003)	(0.003)	(0.003)		(0.002)	(0.002)	(0.002)		(0.002)	(0.002)	(0.002)
Norm. ENEM scores			-0.057***	-0.005			-0.056***	-0.006**			-0.052***	-0.009***
			(0.003)	(0.003)			(0.002)	(0.003)			(0.003)	(0.003)
Mean dependent variable (Men)	0.561	0.561	0.561	0.561	0.626	0.626	0.626	0.626	0.652	0.652	0.652	0.652
	9				10				11			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dependent variables: Formal Employment Participation 9 to 11 years after UNICAMP exam												
Female	-0.032***	-0.031***	-0.049***	0.001	-0.023***	-0.022***	-0.038***	0.004	-0.023***	-0.022***	-0.035***	-0.003
	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)
Relative priority performance		0.011***	0.011***	0.002		0.008***	0.008***	0.001		0.005**	0.005**	0.000
		(0.002)	(0.002)	(0.003)		(0.002)	(0.002)	(0.003)		(0.002)	(0.002)	(0.003)
Norm. ENEM scores			-0.042***	-0.011***			-0.037***	-0.014***			-0.029***	-0.010***
			(0.002)	(0.003)			(0.002)	(0.003)			(0.003)	(0.003)
Mean dependent variable (Men)	0.673	0.673	0.673	0.673	0.683	0.683	0.683	0.683	0.685	0.685	0.685	0.685
	12				13				14			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Dependent variables: Formal Employment Participation 12 to 14 years after UNICAMP exam												
Female	-0.023***	-0.023***	-0.034***	-0.005	-0.025***	-0.025***	-0.035***	-0.015***	-0.020***	-0.020***	-0.029***	-0.016***
	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.006)
Relative priority performance		0.002	0.002	-0.002		0.002	0.002	-0.002		0.001	0.001	-0.003
		(0.003)	(0.003)	(0.003)		(0.002)	(0.002)	(0.002)		(0.003)	(0.002)	(0.003)
Norm. ENEM scores			-0.025***	-0.009***			-0.024***	-0.009***			-0.021***	-0.007**
			(0.003)	(0.003)			(0.003)	(0.003)			(0.003)	(0.003)
Mean dependent variable (Men)	0.682	0.682	0.682	0.682	0.668	0.668	0.668	0.668	0.654	0.654	0.654	0.654
Number of observations	36,933	36,933	36,933	36,933	36,933	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Major FE	No	No	No	Yes	No	No	No	Yes	No	No	No	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variables are dummy variables equal to one if the individual worked in the formal labor market (i.e., is in RAIS) between six and 14 years after the applicant took the UNICAMP admission exam. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.46: Log (Annual Wages) Six to 14 Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (6-14 years after admission exam)								
Female	-0.265***	-0.264***	-0.189***	-0.188***	-0.115***	-0.115***	-0.090***	-0.091***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.010**		0.009**		0.018***		0.018***
		(0.004)		(0.004)		(0.004)		(0.004)
Norm. ENEM scores			0.172***	0.172***			0.100***	0.100***
			(0.004)	(0.004)			(0.005)	(0.005)
Number of observations	31,092	31,092	31,092	31,092	31,092	31,092	31,092	31,092
Mean dependent variable (Men)	10.357	10.357	10.357	10.357	10.357	10.357	10.357	10.357
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (6-14 years after admission exam)								
Female	-0.268***	-0.268***	-0.191***	-0.190***	-0.124***	-0.124***	-0.100***	-0.100***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Relative priority performance		0.010**		0.009**		0.018***		0.018***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.175***	0.175***			0.098***	0.098***
			(0.004)	(0.004)			(0.005)	(0.005)
Number of observations	31,092	31,092	31,092	31,092	31,092	31,092	31,092	31,092
Mean dependent variable (Men)	10.732	10.732	10.732	10.732	10.732	10.732	10.732	10.732
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between six and 14 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between six and 14 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.47: Log (Annual Wages) Six to Nine Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (6-9 years after admission exam)								
Female	-0.268***	-0.267***	-0.197***	-0.196***	-0.099***	-0.100***	-0.074***	-0.075***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)	(0.011)	(0.011)
Relative priority performance		0.017***		0.015***		0.019***		0.020***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.152***	0.152***			0.099***	0.099***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	27,857	27,857	27,857	27,857	27,857	27,857	27,857	27,857
Mean dependent variable (Men)	10.091	10.091	10.091	10.091	10.091	10.091	10.091	10.091
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes
Panel B: Maximum annual wages (6-9 years after admission exam)								
Female	-0.275***	-0.274***	-0.205***	-0.204***	-0.109***	-0.109***	-0.084***	-0.085***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)	(0.011)	(0.012)	(0.012)
Relative priority performance		0.020***		0.018***		0.021***		0.021***
		(0.005)		(0.005)		(0.005)		(0.005)
Norm. ENEM scores			0.151***	0.151***			0.098***	0.098***
			(0.005)	(0.005)			(0.006)	(0.006)
Number of observations	27,857	27,857	27,857	27,857	27,857	27,857	27,857	27,857
Mean dependent variable (Men)	10.354	10.354	10.354	10.354	10.354	10.354	10.354	10.354
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between six and nine years after the admission exam. The dependent variable is the log of the average or maximum annual wages between six and nine years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.48: Formal Employment Participation between 7 and 12 Years After Admission Exam

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dependent variable: Formal employment participation between 7 and 12 years after admission exam								
Female	-0.033***	-0.032***	-0.041***	-0.040***	-0.008	-0.008	-0.009*	-0.009*
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.005)
Relative priority performance		0.007***		0.008***		0.003		0.003
		(0.002)		(0.002)		(0.002)		(0.002)
Norm. ENEM scores			-0.019***	-0.019***			-0.006**	-0.006**
			(0.002)	(0.002)			(0.003)	(0.003)
Number of observations	36,933	36,933	36,933	36,933	36,933	36,933	36,933	36,933
Mean dependent variable (Men)	0.824	0.824	0.824	0.824	0.824	0.824	0.824	0.824
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission. The dependent variable is a dummy variable equal to one if the individual worked in the formal labor market (i.e., is in RAIS) between seven and 12 years after the applicant took the UNICAMP admission exam. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.49: Log (Annual Wages) between Seven and 12 Years After Admission Exam: Trimming

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Average annual wages (7-12 years after admission exam)								
Female	-0.264	-0.263	-0.190	-0.189	-0.106	-0.107	-0.082	-0.082
	[-0.266,-0.262]	[-0.265,-0.262]	[-0.191,-0.188]	[-0.191,-0.187]	[-0.107,-0.105]	[-0.108,-0.106]	[-0.083,-0.081]	[-0.083,-0.081]
Relative priority performance		0.014		0.013		0.019		0.020
		[0.013,0.015]		[0.012,0.014]		[0.019,0.020]		[0.019,0.020]
Norm. ENEM scores			0.166	0.166			0.099	0.099
			[0.165,0.167]	[0.165,0.167]			[0.098,0.099]	[0.098,0.099]
Panel B: Maximum annual wages (7-12 years after admission exam)								
Female	-0.262	-0.261	-0.186	-0.185	-0.112	-0.112	-0.088	-0.089
	[-0.264,-0.260]	[-0.263,-0.259]	[-0.188,-0.184]	[-0.187,-0.184]	[-0.112,-0.110]	[-0.113,-0.111]	[-0.089,-0.087]	[-0.090,-0.088]
Relative priority performance		0.012		0.012		0.019		0.019
		[0.012,0.014]		[0.011,0.013]		[0.018,0.019]		[0.019,0.020]
Norm. ENEM scores			0.169	0.169			0.095	0.095
			[0.168,0.170]	[0.168,0.170]			[0.094,0.095]	[0.094,0.096]
Number of random draws	500	500	500	500	500	500	500	500
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average or maximum annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. In this table, we use a bounding exercise similar to Carrell et al. (2018), where we randomly drop from our sample applicants with higher than the median relative priority performance sequentially until the relative priority performance estimate in the participation regression is close to zero (smaller than 0.001). We use the trimmed sample from column (2) to estimate column (1), the trimmed sample from column (4) to estimate column (3), the trimmed sample from column (6) to estimate column (5), and the trimmed sample from column (8) to estimate column (7). By iterating the process 500 times, we obtain a distribution of the estimates of interest. In brackets, we display the empirically-computed 95% confidence interval of the estimated coefficients, the 2.5th (lower bound) and 97.5th (upper bound) percentiles. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.50: Blinder-Oaxaca Decomposition: Log (Annual Wages) between Seven and 12 Years After Admission Exam

	Average				Maximum			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Overall								
Men	10.326***	10.326***	10.326***	10.326***	10.628***	10.628***	10.628***	10.628***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Women	10.062***	10.062***	10.062***	10.062***	10.367***	10.367***	10.367***	10.367***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Difference	0.264***	0.264***	0.264***	0.264***	0.262***	0.262***	0.262***	0.262***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Explained	0.001	0.073***	0.169***	0.195***	0.001	0.073***	0.156***	0.181***
	(0.001)	(0.003)	(0.012)	(0.012)	(0.001)	(0.004)	(0.012)	(0.012)
Unexplained	0.264***	0.191***	0.096***	0.070***	0.261***	0.188***	0.105***	0.080***
	(0.009)	(0.009)	(0.014)	(0.014)	(0.009)	(0.010)	(0.015)	(0.015)
Explained								
Relative priority performance	0.001***	0.001***	0.001***	0.002***	0.001***	0.001***	0.001***	0.002***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Norm. ENEM scores		0.072***		0.042***		0.073***		0.041***
		(0.003)		(0.004)		(0.003)		(0.004)
Major FE			0.167***	0.151***			0.155***	0.140***
			(0.012)	(0.012)			(0.012)	(0.012)
Unexplained								
Relative priority performance	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Norm. ENEM scores		0.003		0.002		0.004		0.002
		(0.003)		(0.003)		(0.003)		(0.003)
Major FE			-0.004	-0.003			0.002	0.003
			(0.010)	(0.011)			(0.011)	(0.011)
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable	10.215	10.215	10.215	10.215	10.518	10.518	10.518	10.518
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The table presents a Blinder-Oaxaca decomposition for annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. Columns (1) to (4) present the results for the log of the average annual wages, and columns (5) to (8) present the results for the log of the maximum annual wages. We compute real annual wages in Brazilian 2002 *reais*. Panel 'Overall' presents the overall Blinder-Oaxaca decomposition. Row 'Men' reports the average of the log wages for men, row 'Women' reports the average of the log wages for women, and row 'Difference' reports the raw gender wage gap. Explained is the portion of the gender gap explained by the observable differences $(X^m - X^f) \times \beta^m$, while unexplained is the portion related to differences in the coefficients $(\beta^m - \beta^f) \times X^f$. Panel 'Explained' decomposes how much of the explained portion of the gender wage gap relates to each covariate, and panel 'Unexplained' decomposes how much of the unexplained portion of the gender wage gap relates to each covariate. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table O.51: Quantile Regressions: Log (Average Annual Wages) Seven to 12 Years After Admission Exam

	10		25		50		75		90	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Panel A: Without major FE										
Female	-0.218***	-0.217***	-0.282***	-0.280***	-0.293***	-0.292***	-0.250***	-0.250***	-0.248***	-0.248***
	(0.026)	(0.026)	(0.014)	(0.014)	(0.010)	(0.010)	(0.008)	(0.008)	(0.010)	(0.010)
Relative priority performance		0.019		0.024***		0.013***		0.007*		0.010*
		(0.013)		(0.007)		(0.005)		(0.004)		(0.005)
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	No	No	No	No	No	No	No	No	No	No
Panel B: With major FE										
Female	-0.019	-0.019	-0.091***	-0.092***	-0.115***	-0.116***	-0.117***	-0.117***	-0.146***	-0.146***
	(0.030)	(0.030)	(0.017)	(0.017)	(0.011)	(0.011)	(0.009)	(0.009)	(0.011)	(0.011)
Relative priority performance		0.024*		0.032***		0.020***		0.013***		0.017***
		(0.014)		(0.007)		(0.005)		(0.004)		(0.005)
Exam year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Major FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906	29,906
Mean dependent variable (Men)	10.326	10.326	10.326	10.326	10.326	10.326	10.326	10.326	10.326	10.326

Notes: Our sample includes 2001-2004 applicants who attended P_1 and P_2 for admission and worked in the formal labor market between seven and 12 years after the admission exam. The dependent variable is the log of the average annual wages between seven and 12 years after the applicant took the UNICAMP admission exam. We compute real annual wages in Brazilian 2002 *reais*. We run recentered influence function (RIF) regressions to estimate quantile regressions. We present results for the 10th (Columns (1) and (2)); 25th (Columns (3) and (4)); 50th (Columns (5) and (6)); 75th (Columns (7) and (8)); and 90th (Columns (9) and (10)) quantiles. 'Relative priority performance' is the difference between the applicant's average residuals in priority and non-priority subjects in our main specification, excluding the 'Female × Priority' interaction. We normalize the variable to have a mean of zero and a standard deviation (s.d.) of one. 'Norm. ENEM scores' is the applicant's ENEM score normalized to have a mean of zero and a s.d. of one for each year. We include admission exam year fixed effects ('Exam year FE') and (intended) major fixed effects ('Major FE'), considering the first-choice major individuals declared when registering for the admission exam. Standard errors based on 999 applicant-level cluster-bootstrap replications are shown in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%.