# The Effect of Internships on Young Women's Education and Labor Force Outcomes: Experimental Evidence from India

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**Abstract**

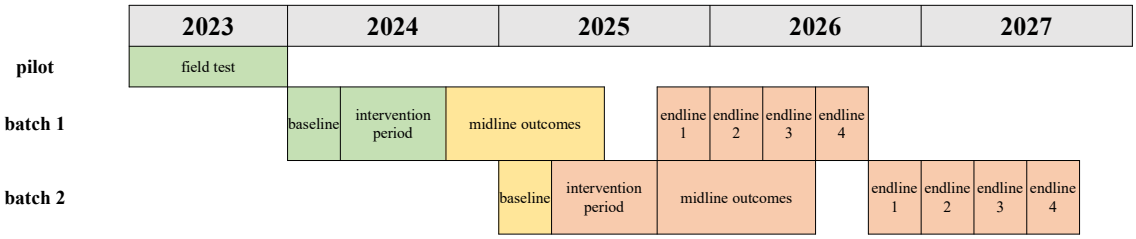
How can children with career goals turn their parents into champions of those goals? In India, many girls want to work outside the home, but parents face social and financial pressures to marry daughters who cannot secure a job or pursue further education. This experiment analyzes household decision-making around a daughter's transition out of secondary school by cross-randomizing two shocks to perceived income generating ability: (1) a short internship and (2) a 750 INR payment framed as a wage, which represents 5% of monthly household income. We analyze changes in child job search behavior and parental willingness to pay for career-related information. Post-high school, we assess the impact on key joint outcomes, such as marriage, labor market participation or further education, offering novel insights into how small but targeted shocks can align parents and girls to ultimately empower daughters.

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## Proposed Timeline

- Jun 22 –Aug 22: Scoping and focus group discussions
- Sep 22 –Mar 23: Study development
- Apr 23 –Aug 23: Testing survey instruments on pilot sample
- Sept 23 –Dec 23: Securing project funds
- Jan 24 –Feb 24: Baseline surveys for batch 1
- July 24 –Sep 24: Internship Intervention for batch 1
- Sep 24 –Jan 25: Midline surveys for batch 1
- Oct 24 –Oct 25: Endline surveys for pilot sample
- Nov 24 –March 25: Baseline surveys for batch 2
- Mar 25 –Aug 25: Internship Intervention for batch 2
- Jul 25 –Jul 26: Endline surveys for batch 1
- Jul 25 –Sep 25: Midline surveys for batch 2
- Jul 26 –Jul 27: Endline surveys for batch 2

**Figure 1:** Experiment Timeline and Status




*Notes:* Green cells represent data collection that is complete. Yellow represents fieldwork that is on-going at the time of this report. Orange represents data collection that has not yet begun. Only results from batch 1 and batch 2 will be included in analysis for the final report. We cite where we use pilot data for research design, hypothesis registration, and power calculations in this report.

## I. Introduction

Children often report ambitious goals, but are frequently derailed during the transition into adulthood. The transition is confounded by parental attitudes, which may be rooted in a household's socio-economic status or the child's gender. A central question arises: when a child expresses personal goals, how can parents be convinced to actively support these goals?

We study a critical subset of children: girls from low-income households in urban Delhi. Despite the availability of safe transportation and jobs across for all education levels, parents of low-income households face opposing financial pressures around investing in adolescent daughters. Parents can increase household income significantly by keeping daughters in the household and encouraging them to work.[1] Parents can also gain financially by removing daughters from the household through marriage.

In our sample, we document two mismatches between stated goals for daughters during high school and realized outcomes post-high school, suggesting the importance of investigating household decision making for daughters during the transition out of high school. First, daughters and parents do not plan on early marriage: only 2% of girls expect to marry by age 20, and only 12% of the relevant parental decision makers report marriage after high school is a high priority.[2] The post-high school reality is far different, as 38% of girls in the relevant demographic are married by the age of 20 (The DHS Program, 2022).[3] Second, over 90% of daughters report plans to work, and 70% of parental decision makers believe women should work. However, only 20% of eldest sisters in our sample worked or looked for work before marriage, which is consistent with India's female labor force participation rate.[4]

[1] Parents may be willing to allow their daughters to work only if the expected wage is high enough (See Appendix Figure B1.).

[2] See Appendix Figure B2.

[3] Probability that age of first marriage is less than or equal to 20, among women surveyed from the lowest income quintile in urban Delhi who have completed some secondary school (or more). This statistic is based on weighted survey responses, restricting the sample to women under the age of 30 to account for cohort differences in marriage age over time. We apply the weights provided in the data.

[4] We investigate older sisters to proxy for household level norms around higher education, labor force participation, and marriage. Appendix Figure B3 shows that a spike in marriage of sisters within the first two years that studies stop. Appendix Figure B4 shows that older sisters who worked before marriage are married 1.5 years later than sisters who did not work. These figures are purely descriptive. Many students in our sample did not have older sisters, and some have older sisters who were not yet married by the time

Parents and girls may be overly optimistic about post-high school job prospects.[5] Girls may underestimate the effort and exposure required for a successful job search or become discouraged when immediate results are not achieved, especially since they are not expected to join the labor force. Parents, in turn, may doubt their daughters' ability to secure employment within a reasonable time-frame, prompting early marriage as a fallback. A combination of these mechanisms may explain why, despite reported alignment in labor force participation during high school, daughters are often married shortly after high school.

We partner with the Directorate of Education (DoE) and Lend and Hand India to experimentally evaluate the impact of internships on a child's transition out of high school. This is a type of policy intervention which is frequently proposed by education and industry experts in India. While previous experimental evaluations show that internships support transitions from school to work (Gelber, Isen and Kessler (2016); Margaryan et al. (2022); Le Barbanchon, Ubfal and Araya (2023); Beam and Quimbo (2023)), none have explicitly focused on understanding the parent-child decision-making dynamics.[6] Understanding how internships affect intra-household decision-making is crucial to designing policies which intend to address the persistently low female labor force participation in India.

Our experiment cross-randomizes two interventions designed to influence a daughters perceived income-generating ability: (1) an short internship and (2) a cash payment of 750 INR (approximately 5% of monthly household income), framed as a wage.[7] We assess how these interventions impact key household outcomes post-high school, such as labor force participation, further education, and marriage. We collect data from both parents and children before and after the intervention to shed light on whether resulting effects come from the real changes on child effort or from increased parental support.

On the child-side, we track changes in beliefs, conversations with parents, and job-search

of data collection.

[5]See Appendix Figures B6 and B7 for baseline job-search expectations by degree type.

[6]Less than 10% of students in our sample report themselves as the primary decision-maker regarding marriage, higher education, and labor force participation. See Appendix Figure B5 for the full distribution of reported key decision-makers by gender.

[7]See Appendix Figure B8 for the distribution of monthly household income in the sample.

efforts. Beliefs and conversations are tracked via baseline and midline surveys. Changes in career planning are tracked through a childs willingness to pay for a book with information on different careers and recommended skills, certifications, and education options. Job-search efforts after high school are measured via endline phone surveys that are conducted periodically.

On the parent side, we evaluate changes in beliefs and investments in their child's futures by observing their willingness to accept career counseling in lieu of cash. Should we observe significant effects of the randomized payments (on either (a) parental outcomes at midline in the experimetal sample or (b) realized child-outcomes at endline in the pilot sample), we plan to inform some parents of the randomized nature of the cash payment. This will allow us to test whether changes in parental support are driven by shifts in their perceptions a daughter's income-generating potential, or by the salience of wages.

Ex-ante, our experiment contributes to three key strands of the economics literature. First, it builds on the literature examining the impacts of short-term labor force experiences on young adult jobseeker outcomes. Gelber, Isen and Kessler (2016) shows that participation in the New York City Summer Youth Employment Program increases wages and employment in the year of participation. Margaryan et al. (2022) finds that mandatory internships in German universities lead to higher employment and wages, particularly among students with weak labor market orientation. In Uruguay, Le Barbanchon, Ubfal and Araya (2023) demonstrates that randomly offering work-study programs raises wages. Similarly, Beam and Quimbo (2023) shows that short-term labor force exposure in the Philippines boosts employment after high school, while Alfonsi, Namubiru and Spaziani (2022) finds that information on internships reduces reservation wages and alters job search behavior among Ugandan youth. Our study advances this literature by examining the short-term effects of internships on a population unlikely to work despite expressing strong self-reported willingness.

Second, we contribute to the literature on household dynamics around human capital investments for children. Dizon-Ross (2019) finds that parents in Malawi hold incorrect beliefs about their childrens grades, which influences their human capital investments. In

Bangladesh, Buchmann et al. (2023) shows that parents respond to monetary incentives to delay their daughters' marriages but are less responsive to traditional womens empowerment programs. Similarly, Ashraf et al. (2020) finds that negotiation and soft-skills training for adolescent girls in Zambia are more effective in promoting educational attainment than standard safe-space interventions. Our experiment pushes this literature by disentangling the beliefs and actions of both parents and children, allowing us to explore where misalignment arises around labor force participation and marriage.

Finally, we contribute to the body of work on female labor force participation in South Asia. For brevity, we reference only key studies such as Fletcher, Pande and Moore (2017), Heath et al. (2024), Jayachandran (2020), and Sorsa et al. (2015). While both daughters and parents in our sample express a high willingness to participate in the labor force, female labor force participation in India remains persistently low. Our experiment examines whether short-term labor force exposure before the end of school can increase post-school labor force participation. We also investigate the differential effects of paid versus unpaid internships and assess whether earning money influences future labor force participation.

The rest of this report is organized as follows. Section II outlines the research context, randomization groups, theory of change, and hypotheses and mechanisms that guide all data collection and pre-registered statistical analyses. Section III describes the data collection process, fieldwork timeline, and target sample size, and pre-specified changes to the randomization groups at critical points. Section IV documents the specific outcome variables, regression models, statistical tests, and power analyses. It also pre-specifies which groups may be pooled for analysis if under-powered or if no effects are found, and discusses the presentation of regression results across the main and online appendices. Section V addresses key risks to the experiment and considers alternative interpretations of the main findings.

Figure 1 summarizes the timeline and status of ongoing fieldwork. All statistics reported in the text, figures, and tables are based on batch 1 data unless otherwise noted.

## II. Research design

### *A. Internship policy context*

Our experiment is run on 11th and 12th-grade students who are enrolled in a vocational course as part of their 5-course curriculum. The vocational course is part of the Central Board of Education's scored curriculum and is treated as a standard secondary school subject. The vocational curriculum is divided into two parts: a general component, which is consistent across all vocational subjects, and a specialized component, which varies by subject. Available subjects include Financial Markets Management, Information Technology, Retail, Travel and Tourism, Beauty and Wellness, Food Production, and Automotive, among others. The specific subjects offered in each school depend on the availability of vocational teachers, with typically one or two subjects available per school. After students receive their 10th-grade exam results, school administrators assign them to vocational courses.

Column 1 of Table 1 provides summary statistics for the students in our sample in the first wave in Delhi. The average 10th-grade score is 57 percent. The typical household size is 5 members, and the average monthly household income ranges from 10,000 to 15,000 INR, placing these households in the bottom quintile of the income distribution in Delhi.[8]

The Vocational Branch of the Directorate of Education (DoE) recommends that students in vocational courses complete internships as part of their education. This internship recommendation has been in place in Delhi for over five years. We collaborate with Lend a Hand India (LAHI), an NGO that specializes in vocational education and supports the DoE in implementing the internship recommendation.

Internships are typically 80 hours in total and held outside of the home. Most participating firms are small- and medium-sized enterprises (SMEs) located in the same postal area as the students school, minimizing travel barriers. Previous interns have worked in local NGOs, post offices, mutual fund offices, tech consultancies, department stores, beauty parlors, and

[8]Per capita monthly income in our sample is 3,000 INR, compared to 37,000 INR in Delhi overall (Statista, 2023).

tourism agencies.

Internships are designed to provide a learning experience rather than a direct means for firms to hire students. Schools are required to send multiple students to each firm for safety reasons, and at times, there are more interns than total full-time employees.

Field interviews with students from the Beauty and Wellness course interning in beauty parlors highlight the key channel of learning: many students initially view their work as simply applying the makeup skills they learned in class. The internship exposes them to beauty as an industry, emphasizing the importance of soft skills and business relationships. Students are involved in tasks such as greeting customers, holding lights in photo shoots, managing Google reviews, and cold-calling potential partners. A successful internship broadens a student's perspective about the types of jobs that exist and the types of skills they have within their vocational field.

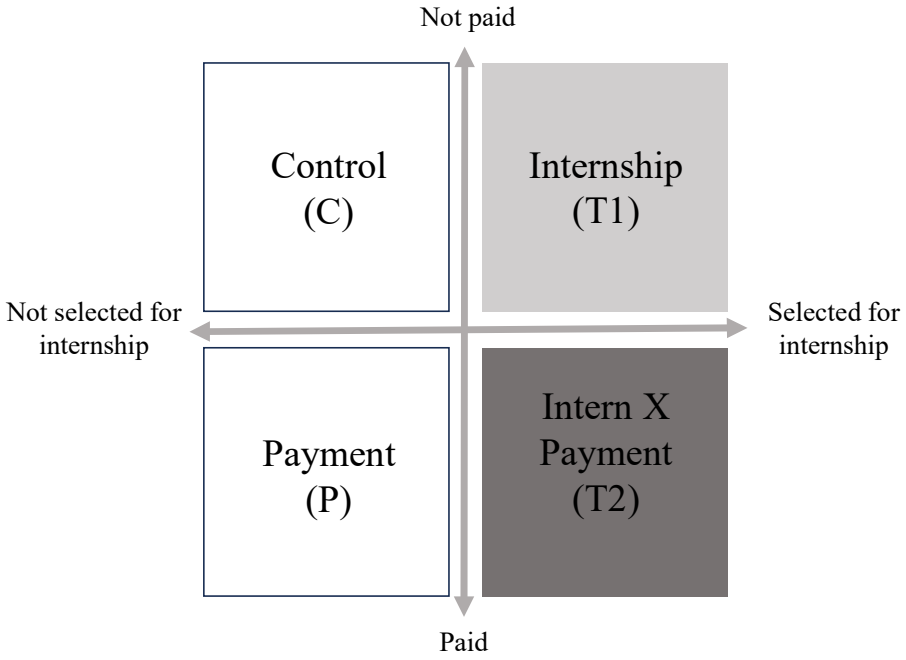
### *B. Randomization groups and theory of change*

Our experiment on internships is a randomized evaluation of an official educational policy. However, field interviews also reveal that some students were quasi-randomly paid for their 80-hours. Such payments seemed to drastically alter parental attitudes in favor of daughters working outside of the home. Hence we also evaluate the differences in paid vs unpaid internships. We cross randomize over two interventions: (1) the 80-hour internship and (2) a 750 INR payment framed as a wage. This results in 4 randomization groups, as shown in Figure 2.

We take on an intra-household decision making framework to characterize the theory of change. Households are comprised of (1) a set of parents, and (2) one daughter. Households can either "invest" in a daughter's future after high school, meaning she remains in the household and attends higher education or looks for work,[9] or they can not invest, meaning a daughter is married off. Once a daughter is married, she leaves the household and

[9]We dont consider household production as a reason to keep daughters in the household, as our experimental sample is low-income. This characterization may not apply to middle class or higher income families.

**Figure 2:** Student randomization groups




*Notes:* Randomization groups are (C, T1, T2, P), where C is neither paid nor selected for the internship, T1 is selected for the internship but not paid, T2 is selected for the internship and paid upon completion of the internship, and P is paid but not selected for the internship. We allocate the percentage split per group of the full sample to be $(40\%, 25\%, 25\%, 10\%)$. As detailed in Section III, we randomize before baseline. Our full sample excludes students who do not fill out baseline, hence the actual percentage of students in each group will still vary.

joins her husband's family, hence absolving her parents of all decision making and financial responsibility.

Under a collective household, parents and daughters are separate decision makers who are overall aligned in investment expectations *before* a daughter finishes high school; daughters and parents would both prefer that daughters attend higher education and work outside of the household for income.

On the child side, we anticipate the internship *experience* to drive effects. At baseline, students may have unrealistic expectations about what it means to work outside of the home or the qualifications necessary for certain careers. We also expect the internship experience to provide them with a basic understanding of professionalism. This refers to showing up on time, effective communication, and the opportunity to work with real clients and coworkers. This professional experience may improve a student's ability to find a suitable job. The internship may change a child's attitudes around the value of work experience relative to

studying from books. The experience may push them to think harder about the type of career they are interested in, and to seek more information on requirements of such careers. This may also push students to change their perspectives on different paths of higher education, and different means to support their career goals. Finally, we believe that the internship may change the personal confidence and motivation of the students, and impact how they communicate their future life plans to their families, which may make their plans seem more credible and thus attainable to their parents.

We anticipate limited persistent effects from payment on students. Students may use the 750 INR to purchase something small, which may remind them of the benefits of participating in the labor force. We suspect any real impacts of the 750 INR payment will act through the joint effect of interning and being paid ($T2$), as this is the group that specifically mimics a paid job.

On the parent side, we anticipate that both the internships and the payments shock the *salience* of their child's ability to generate income. Participating in the internship may also increase the credibility of a child's future plans to work in the eyes of the parents, as parents may feel that their child has matured from the experience. Changes in perceived income generating ability through both the unpaid or paid internships is another margin by which we may shift parental investments in daughters.

### *C. Primary Hypotheses*

The primary hypotheses of our study revolve around how the interventions influence key "joint" or "household"-level outcomes for daughters: labor force participation, age of marriage, and higher education. These hypotheses are rooted in the expectation that internships may improve girls labor market readiness, while the internship and the cash transfer could shift parental preferences in favor of delaying marriage and investing in their daughter's education or career development.

(i) **H1:** Participation in internships (T1) will increase the likelihood of labor force participation one year after high school and improve the quality of higher education choices

**Table 1:** Balance table

| | Full Sample | Control | Intern | Intern × Paid | Paid | p-value |
|---|---|---|---|---|---|---|
| N | 740 | 294 | 196 | 180 | 70 | |
| | | | *Panel A: Personal Characteristics* | | | |
| Female (=1) | 0.527 | 0.531 | 0.546 | 0.494 | 0.543 | 0.771 |
| | (0.500) | (0.500) | (0.499) | (0.501) | (0.502) | |
| Plans to work (=1) | 0.935 | 0.945 | 0.908 | 0.939 | 0.957 | 0.392 |
| | (0.247) | (0.228) | (0.290) | (0.241) | (0.205) | |
| Will be allowed to intern (=1) | 0.872 | 0.864 | 0.878 | 0.856 | 0.929 | 0.276 |
| | (0.335) | (0.343) | (0.329) | (0.353) | (0.259) | |
| Class 10th percentage (%) | 57.180 | 56.913 | 56.518 | 57.687 | 58.964 | 0.457 |
| | (10.459) | (10.592) | (10.298) | (10.134) | (11.213) | |
| | | | *Panel B: Household Characteristics* | | | |
| Father works (=1) | 0.827 | 0.837 | 0.776 | 0.850 | 0.871 | 0.170 |
| | (0.378) | (0.370) | (0.418) | (0.358) | (0.337) | |
| Mother works (=1) | 0.265 | 0.265 | 0.270 | 0.272 | 0.229 | 0.897 |
| | (0.442) | (0.442) | (0.445) | (0.446) | (0.423) | |
| Father finished HS (=1) | 0.239 | 0.245 | 0.219 | 0.222 | 0.314 | 0.457 |
| | (0.427) | (0.431) | (0.415) | (0.417) | (0.468) | |
| Mother finished HS (=1) | 0.170 | 0.184 | 0.133 | 0.172 | 0.214 | 0.322 |
| | (0.376) | (0.388) | (0.340) | (0.379) | (0.413) | |
| Parent thinks women should work (=1) | 0.716 | 0.688 | 0.711 | 0.736 | 0.804 | 0.263 |
| | (0.451) | (0.464) | (0.455) | (0.442) | (0.401) | |
| Household size (N) | 5.277 | 5.364 | 5.015 | 5.363 | 5.429 | 0.039 |
| | (1.716) | (1.820) | (1.376) | (1.925) | (1.509) | |

*Notes:* This data is collected from the two surveys conducted thus far for batch 1: a students baseline survey which was conducted in school and a parents baseline survey which was conducted over the phone. Results will change when fieldwork for batch 2 begins. The parent survey completion rate is close to 90% for batch 1, and Appendix Figure B9 compares the distribution of which household member the student reported was the key decision maker, relative to which household decision maker was actually surveyed in the parents baseline.

made. This hypothesis predicts that girls who participate in internships during their final year of high school will be more likely to enter the labor force within a year of completing school and/or choose better quality majors for those pursuing higher education. Internships are expected to enhance students professional skills, expose them to workplace norms, and provide them with on-the-job training. Consequently, these girls will be better prepared to find employment, navigate the job market post-graduation, and maker higher education decision better aligned with labor market demands.

(ii) **H2:** Receiving only a cash payment (P) will not change any household level outcomes measured after high school, as a cash payment without any indication that there is a

change in the child's ability to continue earning.

(iii) **H3:** The combined intervention (T2: internship + cash transfer) will have the strongest impact on delaying marriage, increasing labor force participation, and leading to improved higher education choices. This hypothesis suggests that the combination of labor market exposure (through the internship) and the financial incentive (the cash transfer) will have a compounding effect. The internship provides the skills and exposure needed for labor market entry, while the cash transfer reinforces parental support by demonstrating the daughters income-generating potential. Together, these factors are expected to produce the most significant impacts on both delayed marriage and employment outcomes.

### *D. Secondary Hypotheses*

The secondary hypotheses are designed to explore other dimensions of how our interventions might influence behavior and decision-making within the household. These hypotheses include mechanisms related to parental attitudes, job search behavior, and differences in treatment effects by gender.

(i) **H4:** Internships will improve students' job search behavior and parental willingness to invest in career-related information. This hypothesis posits that participating in an internship will change how students approach job searching by increasing their awareness of professional opportunities and improving their job search strategies. At the same time, internships may make parents more likely to invest in their daughters careers, as they witness their daughters gaining practical skills.

(ii) **H5:** Paid internships (T2) will increase the perceived credibility of the daughters income potential, leading to greater willingness to invest in her career. This hypothesis suggests that receiving a cash payment for completing an internship will enhance parental perceptions of their daughters income-generating abilities. Parents who see direct financial returns from their daughters work are expected to invest more in her future education or career by delaying marriage plans and providing more support for

job-search activities.

(iii) **H6:** Gender heterogeneity: The impact of paid internships will be stronger for girls compared to boys. This hypothesis examines whether the effects of the intervention vary by gender. Given that societal expectations for boys and girls differ significantly in the Indian context, we expect that the paid internship (T2) will have a more pronounced effect on girls.

### *E. Mechanism Testing*

Mechanism testing is crucial in this study as it allows us to unpack how and why the interventions (internships and cash payments) produce their effects. Understanding the mechanisms will help explain the changes in outcomes like labor force participation, marriage timing, and educational continuation. Below, we specify several key mechanisms that we hypothesize may drive these changes.

(i) **Parental Attitudes toward Daughters Career Prospects**: One of our central mechanisms involves a shift in parental attitudes toward their daughters' career prospects and the decision-making in the household. In traditional low-income households in India, parents often prioritize early marriage for girls over career development. The internship intervention could alter this perspective by demonstrating the daughters capacity to work and possibly generate income. For instance, the internship may expose the daughter to workplace norms and increase her employability, while the cash payment provides immediate financial evidence of her income-generating ability. This change in parental attitudes is expected to result in delayed marriage and greater support for further education or employment.

(ii) **Perceived Credibility of Girls Future Employment**: A key barrier to girls participation in the labor force is the lack of credibility in their ability to secure future employment. This mechanism tests whether the internships improve the credibility of girls in the eyes of both parents and the girls themselves. Parents may initially doubt that their daughters have the skills or experience needed to obtain gainful employment.

However, participation in an internship could change this by providing girls with real-world work experience, and a cash payment could further reinforce this credibility.

(iii) **Social Norms and Pressure**:In many Indian households, social norms and external pressures from extended family or neighbors influence decisions around daughters education and marriage. This mechanism explores whether the interventions reduce the pressure parents feel to marry off their daughters quickly after high school by shifting the focus toward employment or better higher education opportunities.

(iv) **Changes in Daughters Self-Efficacy and Confidence**: Another important mechanism is the potential change in self-efficacy and confidence among girls who participate in internships. For many girls, internships may be their first exposure to a professional work environment, providing them with not only new skills but also a stronger sense of independence and self-efficacy. For many girls, this will be their first exposure to a professional work environment, which may foster a sense of independence and self-efficacy. This increased confidence could encourage girls to actively pursue employment or better quality higher education after high school, rather than defaulting to marriage. Testing this mechanism involves measuring changes in the girls' confidence and career aspirations before and after the intervention.

(v) **Time Discounting and Immediate Financial Incentives**: The cash payment introduces an immediate financial incentive that could influence household decision-making, especially in contexts where income is scarce. Households may heavily discount future potential earnings, preferring immediate financial benefits. By offering a cash payment amounting to 5% of the monthly household income during high school, the intervention provides an immediate return on investment, which may shift preferences toward delaying marriage and investing in further education or job search activities. This mechanism tests whether the cash payment reduces the households inclination to make short-term decisions such as marrying off a daughter by making the benefits of future employment more tangible.

These mechanisms will be tested using a combination of survey data (collected from both parents and children) and outcome measures such as willingness to pay for career counseling, job search behavior, quality of higher education enrollment, and labor market participation rates. See Section IV for pre-specified variable construction and regression analyses.

## III. Data collection

### *A. Randomization procedure with contingent sub-treatment*

The experiment is conducted in two batches. The first batch will target 800 students, while the second will target 2,800 students, resulting in a targeted main sample size of 3,600 students. Our sample size may be larger or smaller depending on the number of schools that ultimately agree to participate in the baseline survey.

At the beginning of each batch, we obtain a list of government schools offering vocational courses, along with the names of enrolled students in each vocational class. We send our field team to the Head of School (HoS) with a permission letter from the DoE to request permission to baseline survey. Of the schools where HoS's agree, students are then pre-randomized into four treatment arms. The randomization is stratified by school and gender, although most schools in Delhi are not co-educational. Table 1 provides a summary of balance across randomization groups for the first batch of the experiment in Delhi. We anticipate that our final experimental sample will be mostly girls, but we aim to include around 400 boys to conduct gender heterogeneity testing.

Given the nature of the intervention, we do not expect perfect compliance with the internship offer, as some students may choose not to participate. Based on preliminary field tests conducted in Spring 2023, interviews with vocational teachers, administrative data from Lend a Hand India, and baseline data, we anticipate a final internship take-up rate around 80%.

To maintain comparability across randomization groups under imperfect compliance, it is crucial that compliance with internship completion does not vary by payment. Prior to

the internship period, students information about the payment is held constant. Groups P and C, which are not selected for the internship match, are informed that they will enter a lottery for 750 INR at midline. Groups T1 and T2, which are selected for the internship match, are told that *upon completion of the internship*, they will be eligible for the same 750 INR lottery. Figure 3 illustrates the randomization and intervention timeline, and Appendix Figure A1 details the exact language provided to students.

In the first wave (Batch 1), we focus on the four main randomization groups shown in Figure 2. If we are powered to detect differences between T1 and T2, we will implement a secondary messaging intervention in Batch 2 to isolate potential mechanisms affecting parental willingness to invest in their childs career. Specifically, parents in Group T2a, whose children receive 750 INR for completing the internship, will receive the same messaging as before. However, parents in Group T2b will be told that the payment was determined by lottery, thereby shutting down any perceived ability signal. Figure 3 Panel A shows the contingency plan for the parent messaging intervention in Batch 2, while Panel B provides the implementation timeline. Appendix Figure A2 includes the specific messaging given to parents.

If we find no significant effects of pure payment (P) at midline, we will drop this group in Batch 2. The mean differences between P and C at midline will be used to generate bounds for students willingness-to-pay exercises.

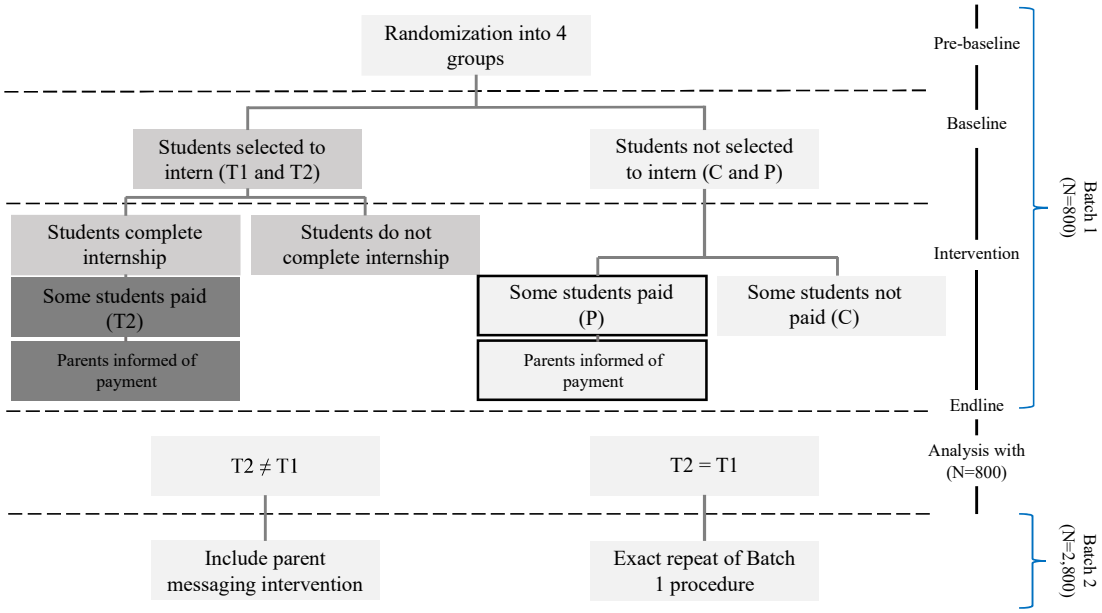
### *B. Description of fieldwork*

During the pre-intervention period, we conduct baseline surveys in schools with 11th class students and baseline surveys with parents over the phone. Both students and their parents are informed about their selection for the internship match during the pre-intervention period to allow households time to plan. Baseline surveys take place approximately three months before the start of the internship period.

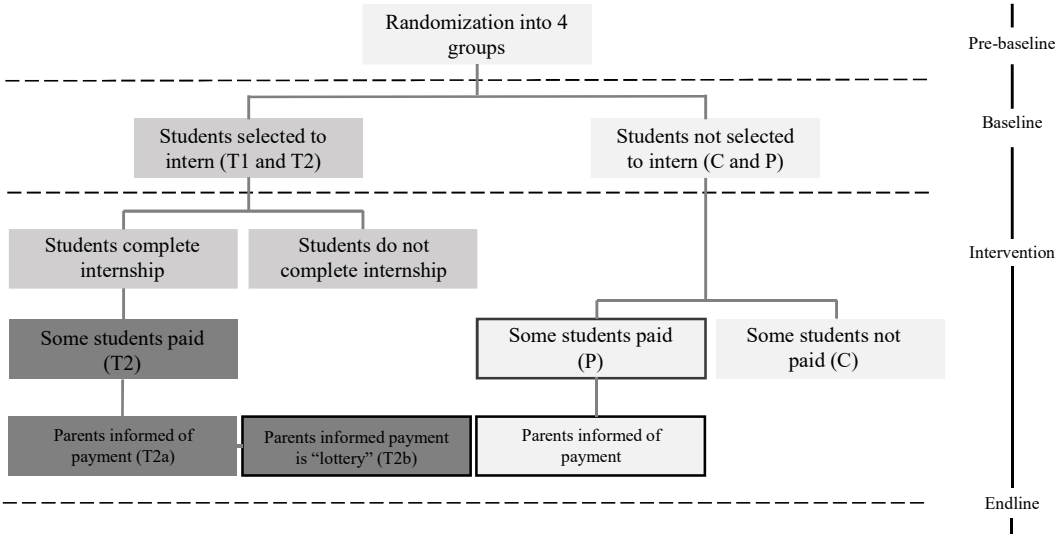
Before the internships begin, Lend a Hand India (LAHI) field staff, in collaboration with vocational teachers, secure internships at local firms. The field staff and teachers evaluate

**Figure 3:** Randomization timeline

**Panel A.** Batch 1 with contingency plan for batch 2




**Panel B.** Batch 2, with parent messaging




*Notes:* We will only proceed with Panel B should we find ample evidence that there is an effect of paid internships over unpaid internships in the main analysis sample.

the working conditions at each firm, after which they organize site visits for the selected students.

The internship period typically occurs during the holidays between 11th and 12th grade, although some internships take place during the early months of 12th grade, before or after school hours, depending on whether the school operates in the morning or evening. Students have the flexibility to complete their internships either over a two-week period (working full-

time for 40 hours per week) or over four weeks on a part-time basis during the school term. This flexibility is expected to facilitate greater participation and allow for the staggering of student placements across employers, simplifying the verification process for vocational teachers and field staff. Internship completion is verified through two mechanisms: (1) each batch of students is accompanied by a chaperone to ensure their safety during transit, and (2) vocational teachers and LAHI staff conduct random audits of firms throughout the internship period.

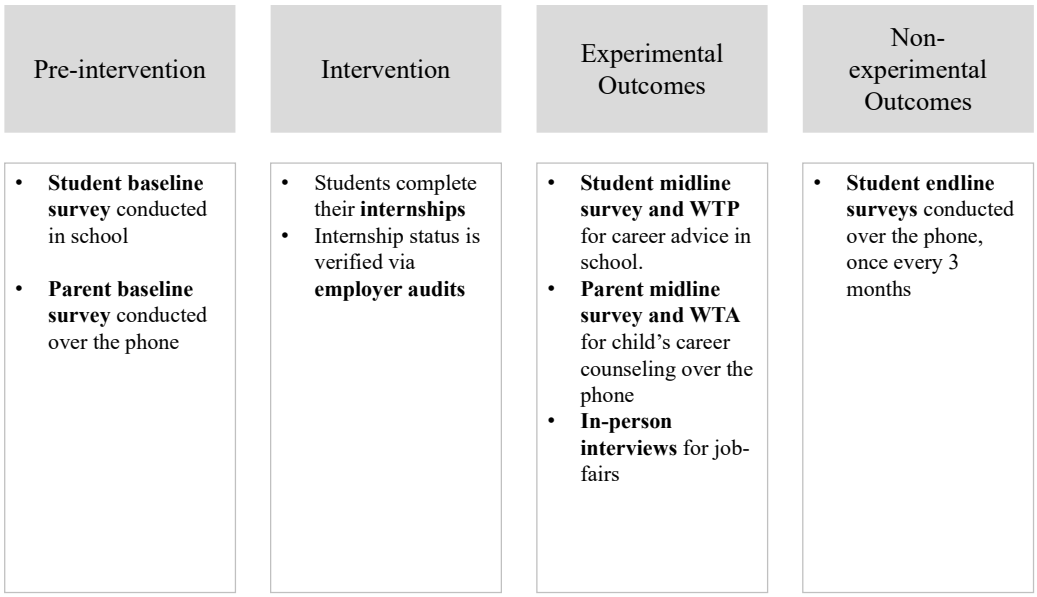
We collect experimental outcomes following the intervention period. During the midline survey, students are informed whether they will receive the 750 INR payment and are given cash on the spot. To measure student career investment, each student is provided with 200 INR for a Becker-DeGroot-Marschak willingness-to-pay exercise. Students must decide how much of the money to keep and how much to spend on a career guidebook that outlines different career paths, along with the educational and skill qualifications required.

We also conduct a midline survey with parents over the phone. Parents of students in Groups P and T2 compliers are informed about the 750 INR payment. Parents then participate in a willingness-to-accept exercise for a one-on-one career counseling session for their child, where they choose between receiving cash or the counseling session, with one choice randomly implemented.

Long-term, non-experimental outcomes are assessed through periodic endline phone surveys with students after they graduate from high school, where we track labor market participation, job search behavior, further education enrollment, and marriage status.

We conduct the full set of field activities for each batch. Figure 1 provides a comprehensive timeline of field activities, along with what work is complete and ongoing. Figure 4 outlines the general data collection activities for each batch.

**Figure 4:** Description of field activities and data collection




## IV. Data analysis

Table 2 summarizes all outcome variables, grouped by main and secondary, along with power calculations. We report OLS minimum detectable effect sizes on the impacts of an unpaid internship relative to the control group ($T1-C$). This is because we pre-specify later in this section that should we find no marginal effects of payment, we will pool all internship groups and compare against the control group ($\{T1, T2\}$ - C). Intent-to-treat MDEs are calculated by the method described in (Duflo, Glennerster and Kremer, 2007) where the OLS MDE is divided by expected compliance, which is 80%.

### *A. Primary results*

We are interested in the effect of internships and payment on revealed-choice, experimental and non-experimental primary outcomes of willingness to pay for career advice, willingness to accept a career counseling session, participation in an in-person interview, job-search behavior, higher education enrollment, and probability of marriage one year after high school. Our primary regression specification is:

$$Y_i = \beta_0 + \beta_1 T1_i + \beta_2 T2_i + \beta_3 P_i + \gamma \mathbf{X_i} + \varepsilon_i \tag{1}$$

$Y_i$ will be an outcome variable, $T1_i$, $T2_i$, and $P_i$ are indicators for a household's randomization group, and $\mathbf{X_i}$ is a vector of household level baseline covariates. Appendix Table A1 reports relevant hypothesis test on coefficients. We are not inherently interested in comparing P to T2, which is to compare the impact of pure payment to a paid internship. We pre-specify that we only want to compare the coefficient on P relative to C in order to bound wealth effects on willingness to pay when comparing coefficients on T1 and T2.

Depending on compliance with the internship, our analyses in the main text may take on three forms. Under the unlikely possibility of perfect compliance on the internship match, we will only report standard OLS interpretation of Equation 1.

We do not expect perfect compliance. Under this case, we will report both the Intent-to-treat interpretation of Equation 1 along with compliance rates from Equation 2. Should compliance be high enough, we may also report 2SLS results in the main text.

$$I\{\text{interned}\}_i = \pi_0 + \pi_1 T1_i + \pi_2 T2_i + \pi_3 P_i + \gamma \mathbf{X_i} + \zeta_i \tag{2}$$

As described in Sections II and III, we randomize students into 4 groups before baseline, but hold fixed the information set for students who are matched to internships $\{T1, T2\}$ and students who are not matched to internships $\{C, P\}$ until midline. This is to ensure internship compliance rates do not vary with payment. We will statistically test whether $\pi_1 = \pi_2$, and $\pi_3 = 0$ from Equation 2. Should we reject either test, we will only interpret the optional 2SLS results as having constant treatment effects, and only share 2SLS results in an appendix section.

As pre-specified in Section III, should we proceed with sub-treatment messaging, $T2$ in batch 1 is the same as $T2a$ in batch 2. These two groups will be pooled together in the full analysis and reported as a main result.

### *B. Secondary results*

All secondary outcome variables are motivated by unpacking mechanisms around the primary results. They can be roughly divided into three categories: (1) self-reported attitudes, (2) gender heterogeneity, and (3) parental interpretation of payment. Secondary outcome variables will be posted in the main report only if they provide evidence for or against an important economic channel. Otherwise, all results on secondary outcomes will be posted in either a main appendix, or an online appendix.

Self-reported attitudes are asked to either both students and parents, parents only, or students only. We include measures around parent-child conversation topics, beliefs around job-search outcomes, and attitudes around the general maturity, responsibility, and ability of the child. Parents are also asked a general set of questions gauging attitudes about marriage, higher education, and labor force participation for sons and for daughters. All questions are reported in Appendix Table A3.

From students-only, we also collect five sets of psychometric indices: motivation, self-efficacy, self-esteem, positivity, and negotiation.[10] The motivation for schooling and interning is measured using the Situational Motivational Scale (Guay, Vallerand and Blanchard, 2000); Appendix Table A4 lists all questions. Self-efficacy questions are adapted from Hillman (1986) and classified based on a combination of positive or negative feeling, associated with internal or external locust of control, and considered as fixed or variable ability. Appendix Table A5 for the full set of questions. We pre-specify two self-efficacy measures of interest, which are positive with internal locus of control, having fixed and variable ability. Positivity is measured using Caprara et al. (2012). Self-esteem is measured using the Rosenberg Self-esteem scale (Rosenberg, 1965). Negotiation is measured using the Alliance Negotiation

[10]See Appendix Table B10 for baseline differences by gender of key psychometric indices.

Scale (Doran, Safran and Muran, 2016). Appendix Table A6 has the full set of questions used for Positivity, Self-esteem, and Alliance Negotiation. Unless otherwise specified, all questions that make up psychometric indices listed in Appendix Tables A4, A5, and A6 will only be reported as part of the relevant standardized index.

Finally, should there be a marginal effect of paid internships relative to unpaid internships for girls, we will investigate whether parents interpret payment for work as ability by including sub-treatment group $T2b$ in batch 2. We use Equation B in Appendix Table A2. We will statistically test whether messaging has an effect. If there is a statistically significant difference, we will report results on $T2b$ in the main body of the report. If there is no statistically significant difference and if the magnitude of change is small, we will pool all paid interns back into a $T2$ indicator, and report main results using the exact regressors in Equation 1. Under this second scenario, we will still post results on the effect of $T2b$ broken out from $T2a$ in the main Appendix.

### *C. Pre-specified contingency analyses*

We may still be underpowered to detect effects given the full sample size. Hence, we pre-specify that should we not be able to detect differences on the marginal effects of payment, we will pool treatment groups (C and P) and (T1 and T2). Regressions and statistical tests in Appendix Table A1 will be replaced by Panel A of Appendix Table A2.

## V. Risks to interpretation

The primary risk to the interpretability of our results is low take-up of the internship. To mitigate this, we will collaborate closely with students and vocational teachers to remind and encourage students to complete their internships. Also, what increases our confidence is the baseline survey data which indicates a strong desire among students to work outside the home. Additionally, over 70% of parents expect all their children to work, regardless of gender, and nearly 90% of students anticipate no family or social pressures that would

**Table 2:** Minimum detectable effect sizes on $\beta_1$ by outcome

| | $\mu$ | $s$ | $MDE_{OLS}$ | $MDE_{ITT}$ |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) |
| **A. Main outcomes** | | | | |
| WTA Career counseling for child (INR)$^\star$ | 147 | 90 | 7.5% | 9.4% |
| WTP Career advice book (INR)$^\star$ | 63 | 19 | 4% | 5% |
| Attends in-person job fair interview $^\dagger$ | 0.20 | 0.6 | 35% | 44% |
| Child graduates from high school$^\ominus$ | 0.45 | 0.5 | 13.5% | 17% |
| Child enrolled in higher education$^\ominus$ | 0.37 | 0.48 | 16% | 20% |
| Child is married within 1 year$^\ominus$ | 0.41 | 0.49 | 14.5% | 18.1% |
| Child looks for work while studying$^\dagger$ | 0.04 | 0.57 | 170% | 213% |
| Female participates in labor force | 0.21 | 0.41 | 23.8% | 30% |
| Number of months searching for work | 4.3 | 3 | 8.1% | 10.2% |
| Monthly reservation wage (INR) | 18,000 | 15,219 | 10% | 12.5% |
| **B. Secondary outcomes** | | | | |
| Attitude questions (SDs) | 0 | 1 | 8% | 10% |
| Conversation topics about post-12th | 0.54 | 0.5 | 11.2% | 14% |

*Notes:* From our main analysis sample of girls $(N_C, N_{T1}) = (1,440; 900)$. $\star$: Distribution from field-test sample. $\dagger$: Distribution from Beam and Quimbo (2023). $\ominus$: Distribution generated from The DHS Program (2022), among women under 30, who live in urban Delhi, who are in the lowest quintile of wealth in urban Delhi, who completed at least some secondary school. All other distributions used in this power analysis are from the batch 1 baseline survey.

hinder their ability to intern.[11] Moreover, students report minimal concerns about sacrificing personal time, and parents generally express no objections to their children's participation in internships.[12,13] If take-up rates fall below 50%, we will adapt the midline survey to explore the disconnect between high reported interest in labor market experience and actual participation in the internship.

A second risk to our analysis is selective attrition. To address this, we will restrict the analysis to students who completed the baseline survey in school, although sample sizes and group compositions will inevitably vary. Experimental outcomes related to parent and student attitudes, as well as willingness to invest in career advice, may be subject to attrition at the midline and endline. We address selective attrition at midline and endline in three ways. First, we will offer virtual surveying over Google Meet with our survey team for students who did not attend the in-person midline surveys. Second, we will ensure that all students who are eligible for payment but did not come to the in-person midline will be paid by

[11]See Appendix Figure B11 for students perceived family and social pressure around interning.
[12]See Appendix Figure B12 for student perceived time cost of interning.
[13]See Appendix Figure B13 for parental reasons to support or refuse internship participation.

coordinating with the vocational teacher to conducting home visits. Third, we will conduct bounding exercises on midline and endline outcomes to account for selective attrition across randomization group. From our pilot sample and batch 1 surveying, we find that in-person surveys are far more susceptible to attrition than phone surveys.[14]

Another potential concern is treatment spillover effects. Although the internships are designed to be light-touch and experiential, it is possible that student outcomes could be influenced by friendships within their vocational classes. To account for this, we will collect data on each students two closest friends within the class and compare outcomes accordingly. We also use the method proposed in Breza et al. (2020) to construct network structure within class. We do not expect significant spillover effects on short-run attitudes at midline as we expect the internship to be an experience more than an informational treatment, nor do we think classroom friendships should impact parents willingness to invest in their children's careers.

Even if we achieve high take-up, low attrition, and minimal spillover effects, we may still observe no effect on experimental or non-experimental outcomes. In such cases, we will investigate secondary outcomes to assess whether the intervention had any measurable impact. If there are no observable changes in students' job search expectations or attitudes toward internships, we will be limited in drawing conclusions about household decision-making dynamics from the intervention. However, if we do observe shifts in either parental or student-reported attitudes, this would suggest that the internship may influence attitudes, even if not directly impacting outcomes.

If we find changes in parental or student behaviors but no corresponding shifts in household-level outcomes, this could provide insight into the relative bargaining power of parents and students during the transition out of high school. If changes in household outcomes are primarily driven by student behavior, this would imply that interventions should focus more on students themselves. Conversely, if household outcomes are more strongly influenced

[14]Our batch 1 parent phone baseline and our first student endline survey in the pilot sample had around a 90% completion rate.

by parental behavior, it would suggest that parents are the key decision-makers. In this case, policies designed to promote investment in daughters may be more effective if they include conditional cash transfers aimed at delaying marriage, supporting employment, and encouraging further education.

A caveat to consider is that we only measure short-run parental attitude changes and willingness to invest. There may be longer-term shifts in parental perspectives that we are unable to capture in this study. If we observe no short-run changes in parental attitudes in the first batch of data, we will add additional questions about parental attitudes in the follow-up surveys for the second batch. Finally, if we find changes only in short-run experimental outcomes but not in long-run outcomes in the first batch, we will investigate whether these results stem from spillovers, small sample size, or the limited efficacy of internships in helping students transition out of high school.

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## Appendix A. Descriptions of messaging, instruments, and regressions

**Appendix Figure A1:** Baseline survey script on randomization into internship group

| | | |
|---|---|---|
| No_intern_group | The Delhi government recommends all 11th and 12th class students in vocational class to complete an 80-hour internship.<br><br>To study this policy, we are matching some students in vocational classes to internships. You have not been chosen at this time; however, we will consider you if we have extra spots.<br><br>We will be interviewing all students again in a few months, and there will be prizes. You have a chance to win 750 INR upon participating in the future interviews. | If C = 1 or P = 1 |
| Intern_group | The Delhi government recommends all 11th and 12th class students in vocational class to complete an 80-hour internship.<br><br>To study this policy, we are matching some students in vocational classes to internships. You have been selected as part of this match. We will be working with your vocational trainer (VT) to get you an internship this break. Please tell your parents and plan ahead.<br><br>We will be interviewing all students again in a few months, and there will be prizes. **Upon completing the internship**, you have a chance to win 750 INR for your efforts. | If T1 = 1 or T2 = 1 |

**Appendix Figure A2:** Lottery messaging

**Panel A.** Student notification of payment at endline

| | | |
|---|---|---|
| Lottery_win | Congratulations! You have been selected to win 750 INR. This is meant to mimic a salary for working.<br><br>We hope that it will incentivize you to keep earning. | If P = 1 OR (T2 = 1 and interned = 1) |
| Lottery_lost | You will not receive an extra 750 INR. However, there are more prizes at the end of the survey for every student. | If C = 1 OR T1 = 1 OR (T2 = 1 and interned = 0) |

**Panel B.** Parent notification of payment at endline, with optional messaging intervention

| | | |
|---|---|---|
| Parent_reward_notice | We also wanted to inform you that ${student_name} was paid 750 INR. This is a reward meant to mimic wages for working. | If (T2a = 1 and interned = 1) or P = 3 |
| Parent_gift_notice | We also wanted to inform you that ${student_name} was paid 750 INR. This is a gift that is meant tomimic wages for working. Payment was determined by a lottery and ${student_name} was randomly selected. | If T2b = 1 and interned = 1 |

**Appendix Table A1:** Primary regressions, with statistical tests and interpretation

| $Y_i = \beta_0 + \beta_1 \text{Interned}_i + \beta_2 \text{Interned} \times \text{Paid}_i + \beta_3 \text{Paid}_i + \varepsilon_i$ | |
|---|---|
| $H_0 : \beta_1 = 0$<br>$H_a : \beta_1 \neq 0$ | Main effect of internship |
| $H_0 : \beta_2 = 0$<br>$H_a : \beta_2 \neq 0$ | Main effect of paid internship |
| $H_0 : \beta_3 = 0$<br>$H_a : \beta_3 \neq 0$ | Main effect of payment |
| $H_0 : \beta_1 = \beta_2$<br>$H_a : \beta_1 \neq \beta_2$ | Extra effect of payment on interns |

**Appendix Table A2:** Contingency regressions, with statistical tests and interpretation

| | |
|---|---|
| (A) $Y_i = \beta_0 + \beta_1 \text{Interned}_i + \varepsilon_i$ | |
| $H_0 : \beta_1 = 0$<br>$H_a : \beta_1 \neq 0$ | Main effect of internship |
| (B) $Y_i = \eta_0 + \eta_1 I\{\text{Lottery}\}_i + \varepsilon_i$<br>if $T2 = 1$ and Paid $= 1$ | |
| $H_0 : \eta_1 = 0$<br>$H_a : \eta_1 \neq 0$ | Parental beliefs on child's ability for payment |

**Appendix Table A3:** Self-reported attitude questions used as short-run outcomes

| | |
|---|---|
| **A: Child-level** | |
| To what extent do you think participating in the internship will help you pursue this profession? | Not helpful to extremely Helpful |
| To what extent do you think you may face pressure from relatives/neighbors for participating in this internship? | No pressure to total pressure |
| To what extent do you think your parents may face pressure from relatives/neighbors for letting you participate in this internship? | No pressure to total pressure |
| I trust my family to make the best decisions for my future. | Likert |
| **B: Parent-level** | |
| I trust my child to make the best decision for their own future | Likert |
| All parents who have the money should send their sons to university or trade school | Likert |
| All parents who have the money should send their sons to university or trade school | Likert |
| All parents who have the money should send their daughters to university or trade school | Likert |
| It is very important for parents to secure a marriage match for their daughter as soon as she finishes class 12th | Likert |
| It is very important for parents to secure a marriage match for their son as soon as he finishes class 12th. | Likert |
| It is better if females do not earn income outside of the home. | Likert |
| Females should only earn income outside of the home if they are paid a very high wage. Otherwise, it is better for them to stay home. | Likert |
| Only the most skilled females should earn income outside of the home. | Likert |
| Many parents cannot imagine their daughters earning income outside of the home. | Likert |
| **C: Asked to both parents and children** | |
| During school breaks, the best way to split time between studying and interning is to ... | Only study to only intern |
| During school breaks, the best way to split time between relaxing and studying is to ... | Only intern to only relax |
| During school breaks, the best way to split time between interning and relaxing is to | Only intern to only relax |
| I feel that I (student) know what my goals are in life. | Likert |
| I feel that I (student) am responsible for my age. | Likert |
| I feel that I (student) am highly skilled for my age. | Likert |
| Pretend you (student) graduate from high school and receive a full-time job. How much do you think you will earn, INR per month, in this first job? | Integer |
| Pretend you (student) graduate from high school and are looking for a full-time job. How many months do you think it will take you to find a suitable full-time job after graduating from high school? | Integer |
| Pretend you (student) graduate from an ITI or trade school and receive a full-time job. How much do you think you will earn, INR per month, in this first job? | Integer |
| Pretend you (student) graduate from an ITI or trade school and are looking for a full-time job. How many months do you think it will take you to find a suitable full-time job after graduating from the ITI or trade school? | Integer |
| Pretend you (student) graduate from college with a bachelors degree and receive a full-time job. How much do you think you will earn, INR per month, in this first job? | Integer |
| Pretend you (student) graduate from college with a bachelors degree and are looking for a full-time job. How many months do you think it will take you to find a suitable full-time job after graduating from college? | Integer |

**Appendix Table A4:** Motivation indices

| *Education* |
|---|
| I go to school because I think that this activity is interesting. |
| I go to school because I am doing it for my own good. |
| I go to school because I am supposed to do it. |
| There may be good reasons to go to school, but personally I dont see any. |
| I go to school because it is something that I have to do. |
| I go to school but I am not sure if it is worth it |
| I go to school because it is fun. |
| I go to school by personal decision. |
| I go to school because I dont have any choice. |
| I dont know why I go to school; I dont see what this activity brings me |
| I go to school because I feel good when doing this activity. |
| I go to school because I believe that it is important for me |
| I go to school because I feel that I have to do it. |
| I go to school, but I am not sure it is a good thing to pursue it |
| *Work experience* |
| I want to pursue internships because I think it will be interesting |
| I want to pursue internships for my own good |
| I want to pursue internships because I am supposed to do it. |
| There may be good reasons to do the internships, but personally I dont see any |
| I pursue internships because it is something that I have to do. |
| I pursue internships, but I am not sure if it is worth it |
| I pursue internships because I think it will be fun. |
| I pursue internships by personal decision. |
| I pursuing internships because I dont have any choice |
| I dont know why I pursue internships; I dont see what it will bring me |
| I pursue internships because I will feel good when doing internships. |
| I pursue internships because I believe that it will be important for me |
| I pursue internships because I feel that I have to do it. |
| I pursue internships, but I am not sure it is a good thing to pursue. |

**Appendix Table A5:** Self-efficacy questions

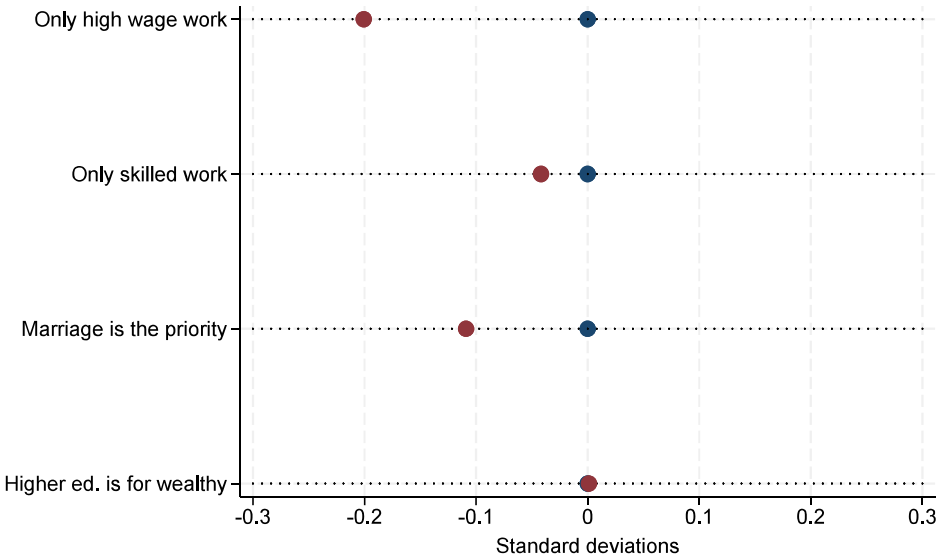
| |
|---|
| *Positive internal fixed* |
| A teacher says to you, Your work is fine. This could happen because you did a good job. |
| People think you are bright. This could happen because you really are smart. How sure are you that this would be the reason? |
| You learn something quickly in school. This could happen because you are smart. |
| *Positive internal variable* |
| Suppose your parents say you are doing well in school. This could happen because you are trying really hard to do well. |
| Suppose you did better than usual in a subject at school. That could have happened because you tried harder. |
| *Positive external fixed* |
| People think you are bright. This could happen because people like to think nice things about others. |
| You learn something quickly in school. This could happen because your teacher is a good teacher. |
| *Positive external variable* |
| Suppose your parents say you are doing well in school. This could be because they are in a good mood. |
| Suppose you did better than usual in a subject at school. This could have happened because you were lucky. |
| A teacher says to you, Your work is fine. This could happen because teachers always say something like this to encourage pupils. |
| *Negative internal fixed* |
| You find it hard to do your homework. This could happen because you are not smart. |
| You received a poor grade in a subject. This could have happened because you were not good in that subject. |
| *Negative internal variable* |
| You read a story and can not remember much of it. This could have happened because you did not read it carefully. |
| You are having trouble understanding something in school. This could have happened because you did not listen carefully. |
| Suppose you study to become a teacher, scientist, or doctor and you fail. This could happen because you did not work hard enough. |
| You received a poor grade in a subject. This could have happened because you were not good in that subject. |
| *Negative external fixed* |
| You read a story and can not remember much of it. It could have happened because the story was not any good. |
| You find it hard to do your homework. This could happen because your teacher is not good at explaining how to do homework. |
| *Negative external variable* |
| Suppose your parents say you are doing well in school. This could be because they are in a good mood. |
| You are having trouble understanding something in school. This could have happened because it was an unlucky day for you. |
| Suppose you study to become a teacher, scientist, or doctor and you fail. This could happen because you needed some help and other people were not able to help you. |
| You received a poor grade in a subject. This could have happened because you were not lucky enough to do well. |

**Appendix Table A6:** Self-esteem, Positivity, Alliance Negotiation

| *Self esteem index* |
|---|
| On the whole, I am satisfied with myself. |
| At times, I think I am no good at all. |
| I feel that I have a number of good qualities. |
| I am able to do things as well as most other people. |
| I feel I do not have much to be proud of. |
| I certainly feel useless at times. |
| I feel that Im a person of worth, at least on an equal plane with others. |
| I wish I could have more respect for myself. |
| All in all, I am inclined to feel that I am a failure. |
| I take a positive attitude towards myself. |
| *Positivity index* |
| I have great faith in the future. |
| I am satisfied with my life. |
| Others are generally here for me when I need them. |
| I look forward to the future with hope and enthusiasm. |
| At times, the future seems unclear to me. |
| I feel I have many things to be proud of. |
| I generally feel confident in myself. |
| *Alliance negotiation index* |
| I feel that I can disagree with my parents without harming our relationship |
| My parents encourage me to express any concerns I have with them about our relationship |
| I am comfortable expressing frustration with my parents when it arises |
| My parents encourage me to express any anger I feel towards them |
| My parents are able to admit when they are wrong about something we disagree on |
| I feel that my parents tell me what to do, without much regard for my wants or needs |
| I feel like I do not have a say regarding what I do in the household. |
| I pretend to agree with my parents goals to maintain peace in the house |
| My parents and I are not good at finding a solution if we disagree |

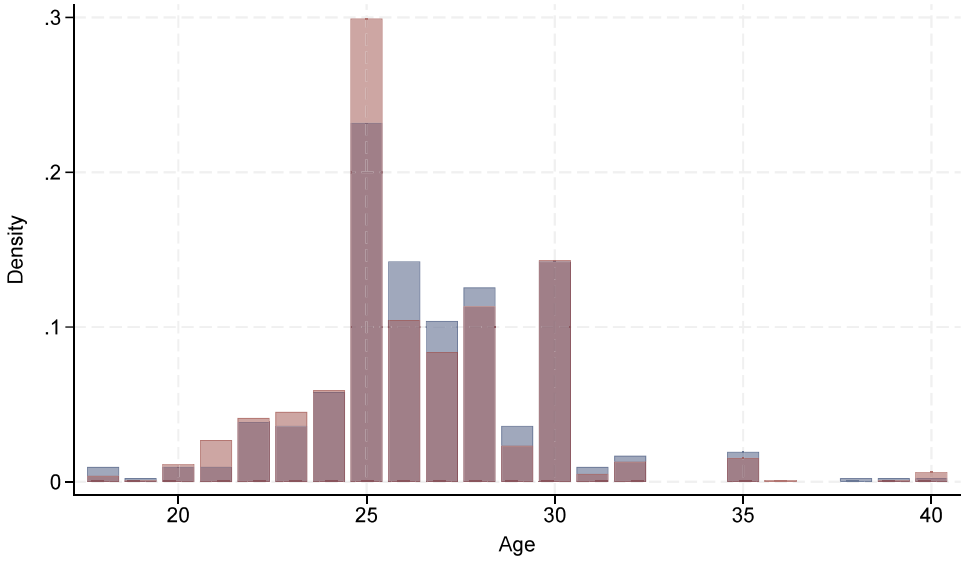
## Appendix B. Baseline figures

**Appendix Figure B1:** Parental beliefs about higher education, marriage, and working outside of the home



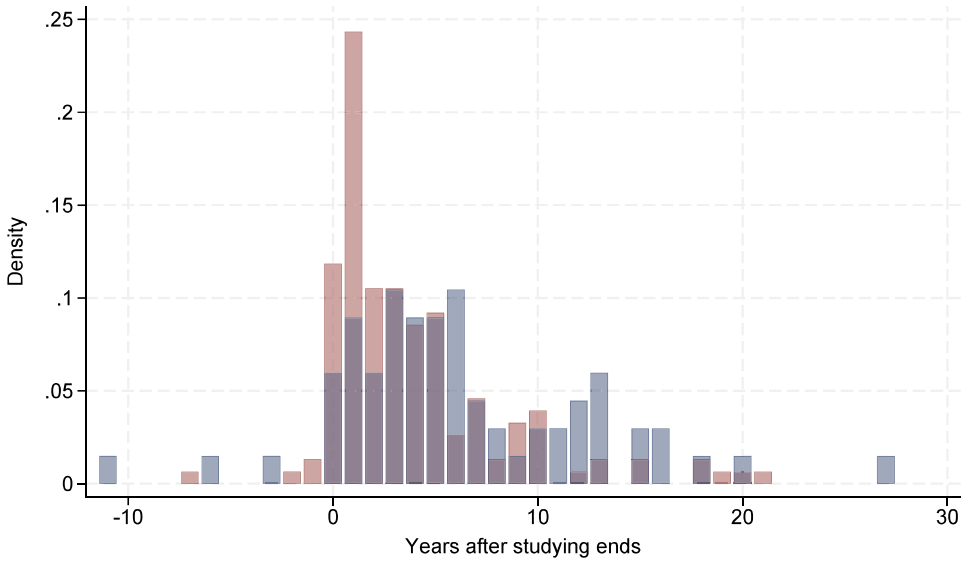

*Notes:* These questions are asked to parents about their beliefs on girls vs boys in general. Blue represents beliefs about boys, red represents beliefs about girls. See Panel B of A3 for questions. Responses standardized by group mean and SD around beliefs about boys. Higher is coded as more "progressive".

**Appendix Figure B2:** Age that students plan to be married



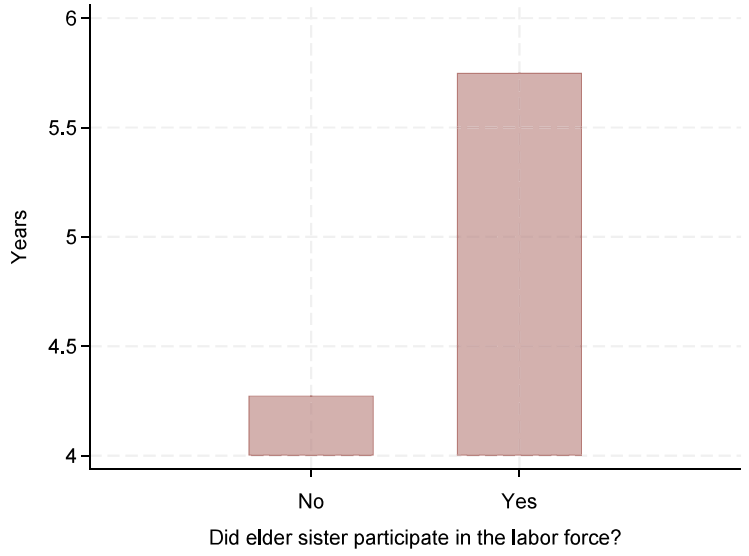

*Notes:* Self-reported student expected age of marriage at baseline. Female responses in pink. Male responses in blue.

**Appendix Figure B3:** How many years after studying stopped was the first sister and first brother married




*Notes:* This figure is not conditioned on graduation or level of degree enrollment. Pink is the first sister married per household. Blue is the first brother married per household. This figure is conditional on having one elder brother or one sister being married.

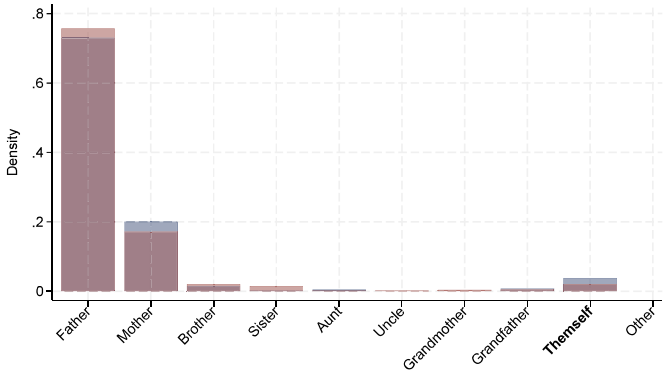
**Appendix Figure B4:** Participating in the labor force delays sister marriages by 1.5 years



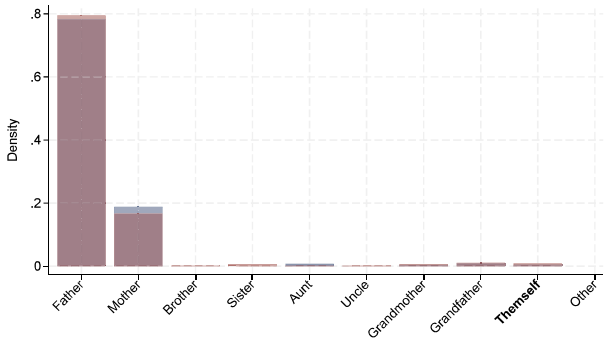

*Notes:* Conditional on having one elder sister that is married.

**Appendix Figure B5:** Primary decision maker regarding student outcomes

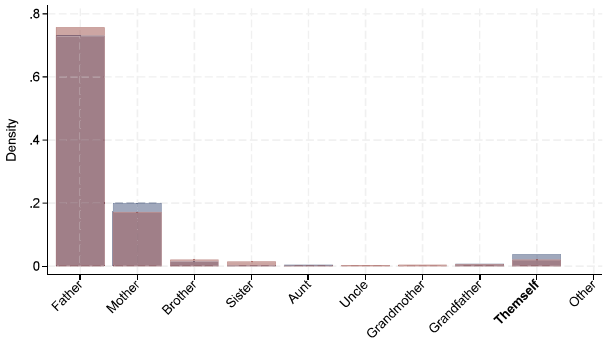
**Panel A.** Working




**Panel B.** Marriage




**Panel C.** Higher education

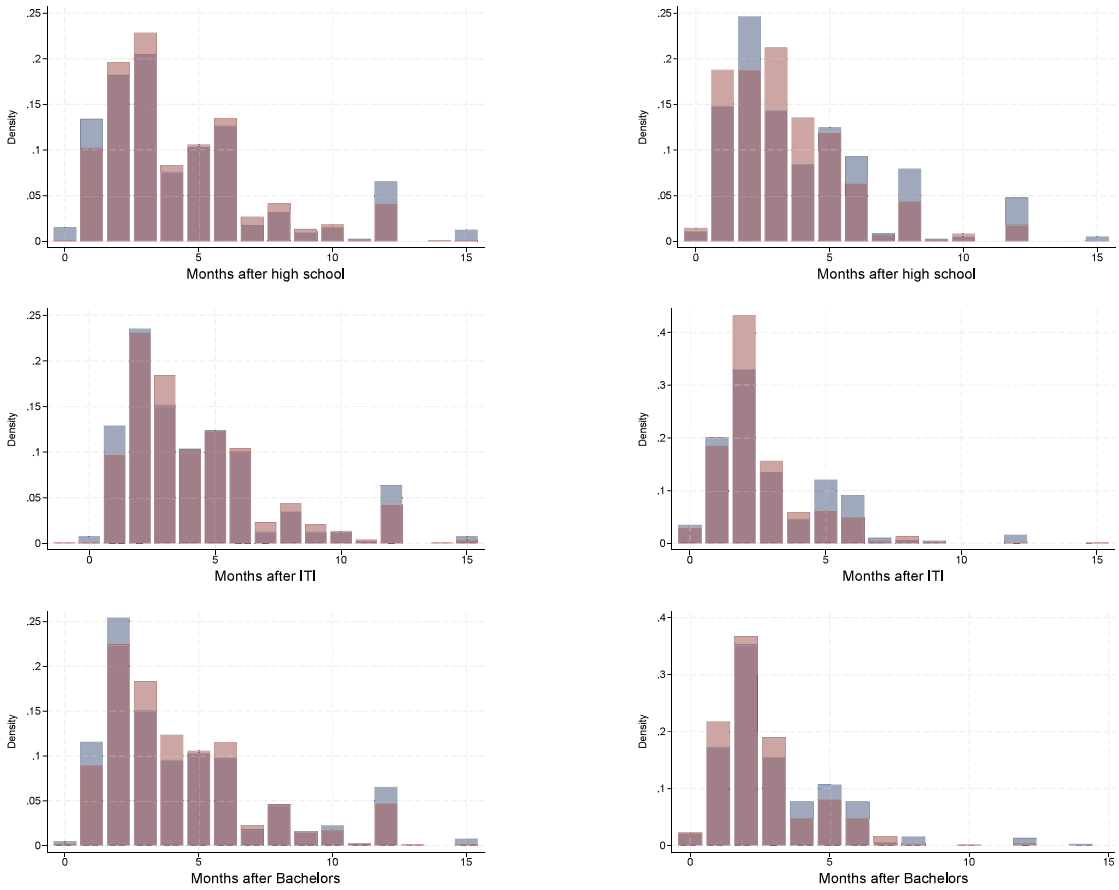



*Notes:* Parents were only asked about household decision making for daughters if they had a daughter. Parents were only asked about household decision making for sons if they had a son. Daughters are in pink. Sons are in blue.

## **Appendix Figure B6:** Time to find first job expectations

**Panel A.** Students

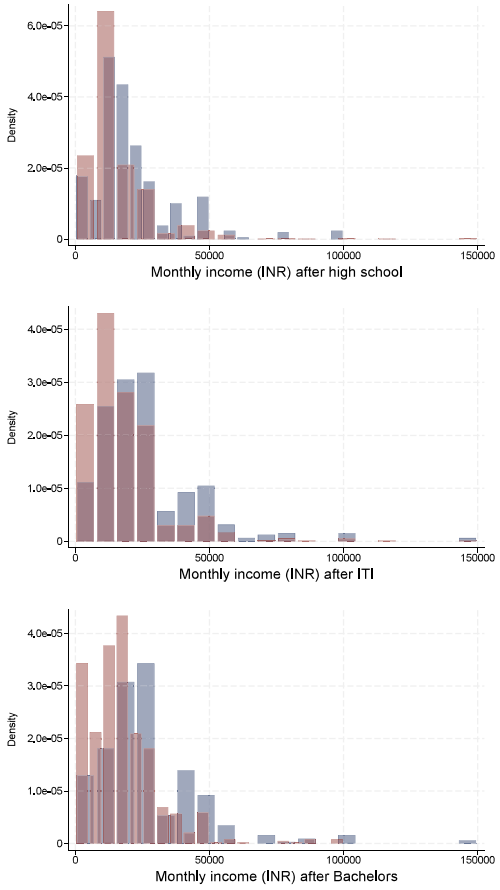
**Panel B.** Parents



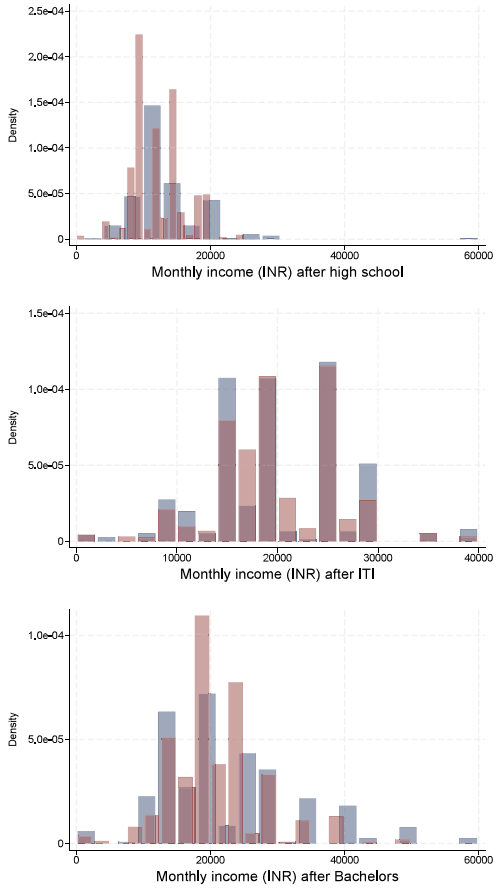

*Notes:* These questions were asked to both students and parents about the student enrolled in our experimental sample. Panel A represents student beliefs on how many months it will take them to find a job, conditional on only having a high school degree, having an ITI degree, and having a Bachelors degree. Panel B represents parent beliefs. Female student responses are in pink. Male student responses are in blue.

## **Appendix Figure B7:** Expected income from first job

**Panel A.** Students

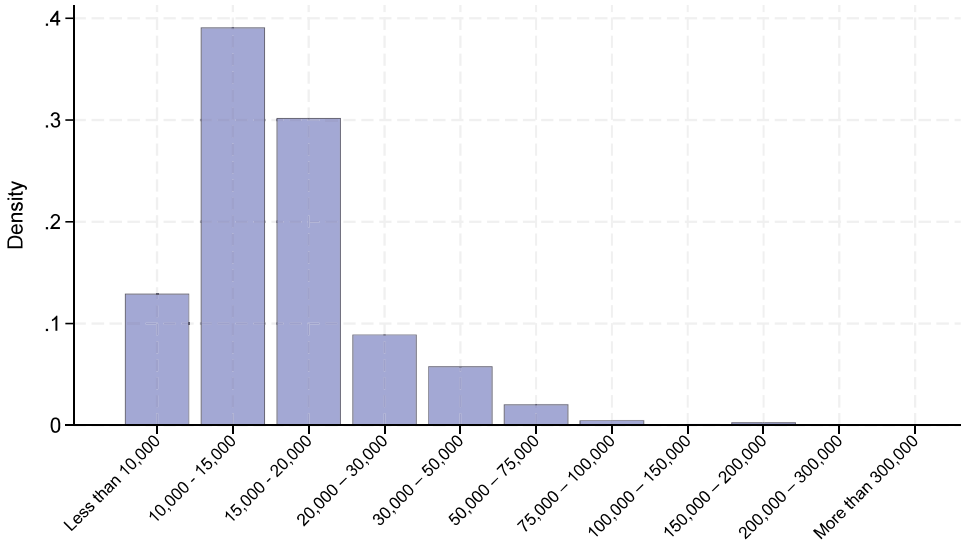



**Panel B.** Parents




*Notes:* These questions were asked to both students and parents about the student enrolled in our experimental sample. Panel A represents student beliefs on monthly income, conditional on only having a high school degree, having an ITI degree, and having a Bachelors degree. Panel B represents parent beliefs. Female student responses are in pink. Male student responses are in blue.

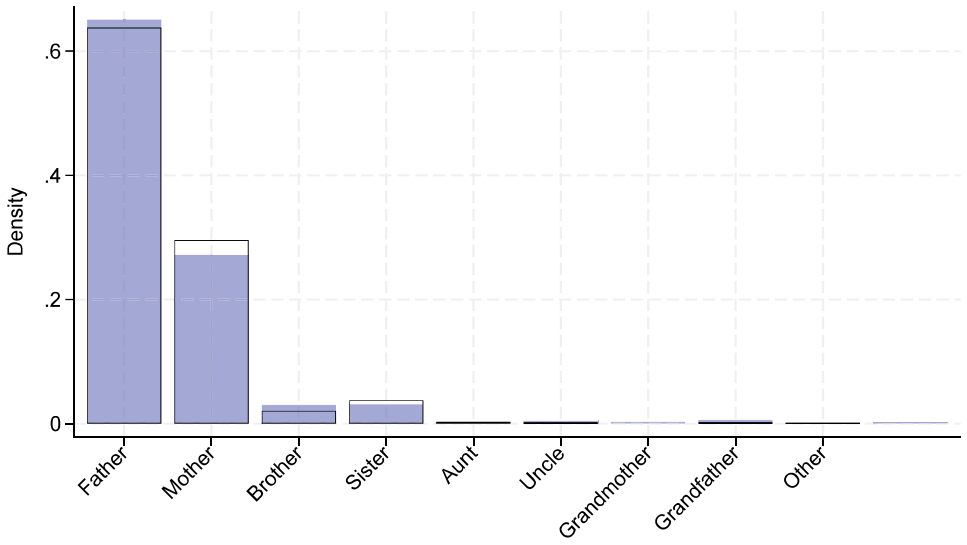
**Appendix Figure B8:** Monthly household income (INR)



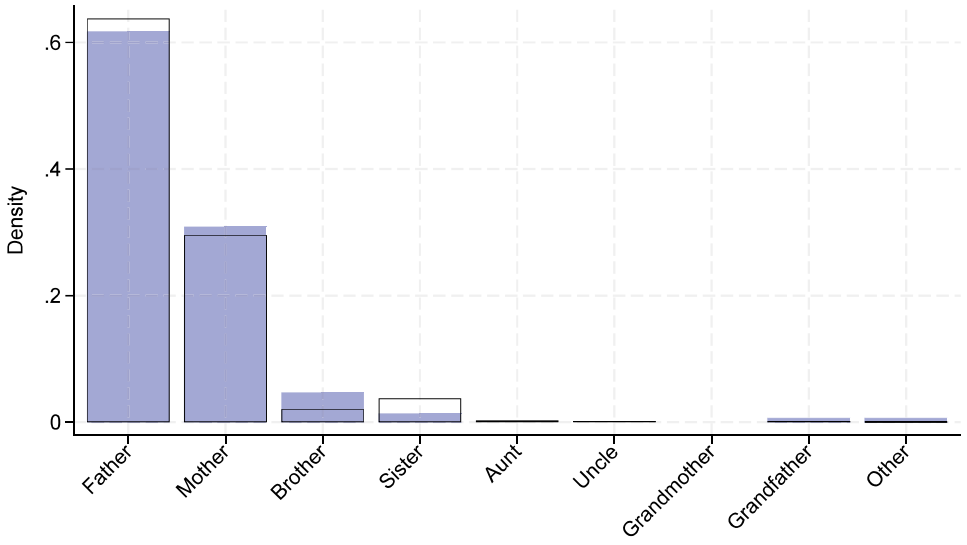

*Notes:* This data was collected in the parent baseline survey. Respondents were asked which category best described their monthly household income. There is some margin for error, as respondents may have rounded up or down if they were at a cutoff value.

**Appendix Figure B9:** Comparison of student reported key decision maker, and which decision maker was actually surveyed

**Panel A.** Full parent baseline

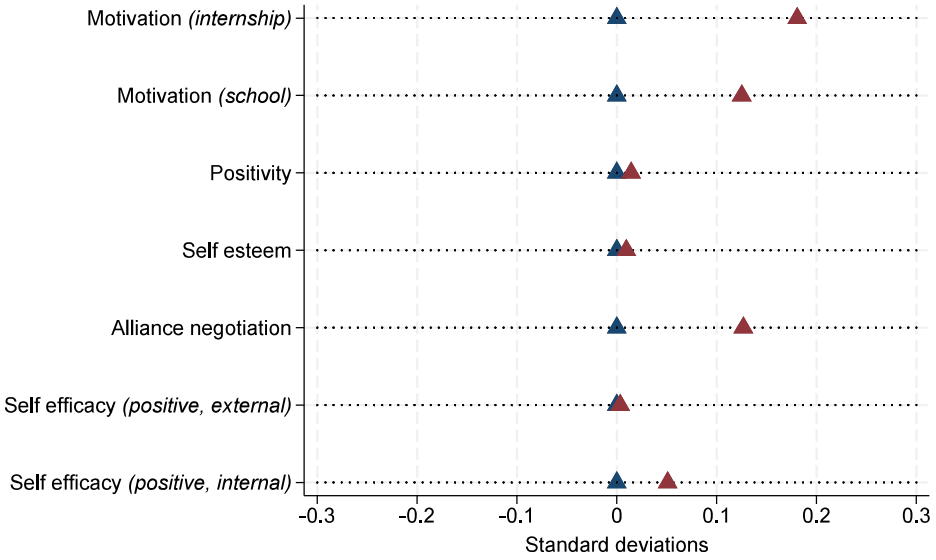



**Panel B.** Missing parent baseline




*Notes:* The black represents the distribution of decision makers who were surveyed over the phone. We refer to this survey as the "parent baseline". The black bars are the same between Panel A and Panel B. The blue represents the relevant sample of students. Panel A has the full sample of students surveyed at baseline. Panel B has the sample of students who are missing the "parent baseline".

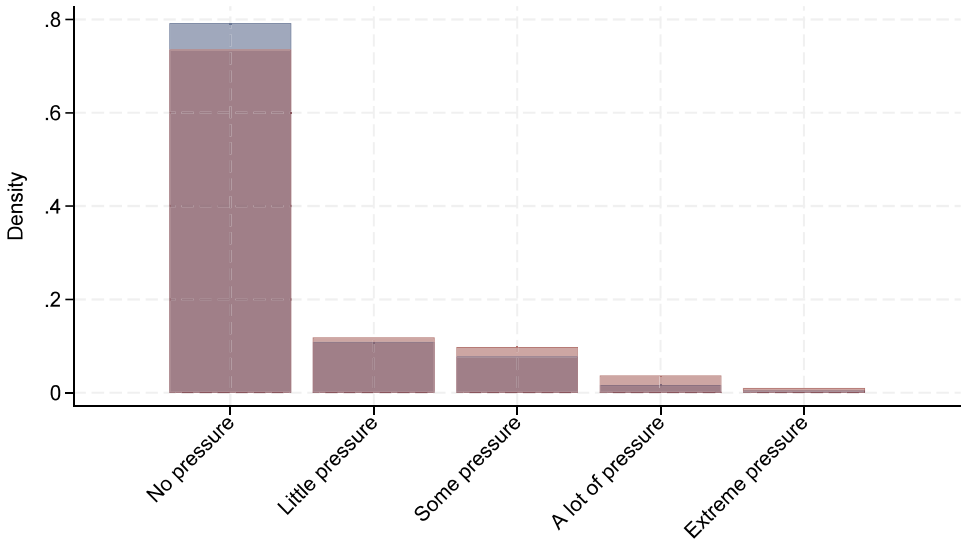
**Appendix Figure B10:** Student psychometric indices at baseline by gender



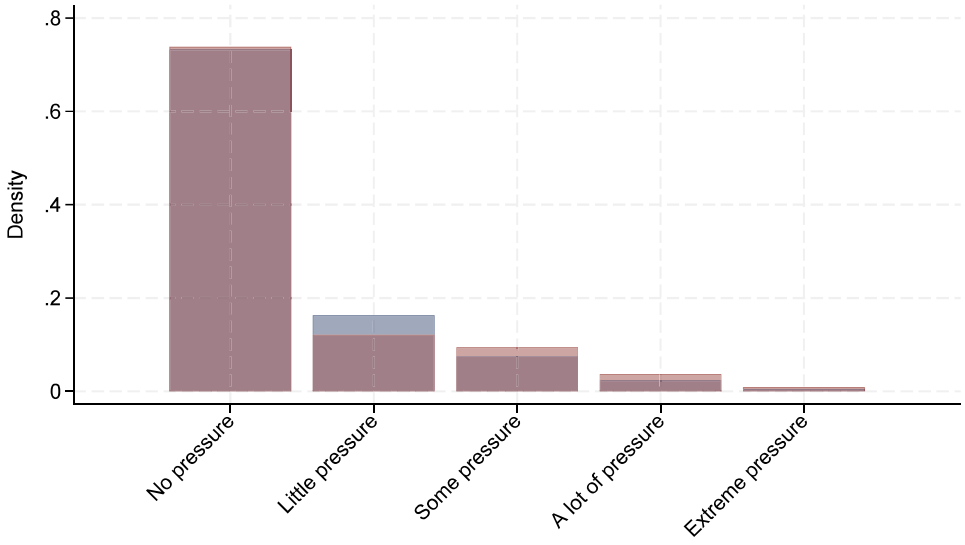

*Notes:* Responses standardized to boys. Red represents female responses. Blue represents male responses. Higher is better for all indices. Internal and external self-efficacy measures refer to locus of control (Hillman, 1986).

**Appendix Figure B11:** How much social pressure against completing an internship

**Panel A.** From family to student



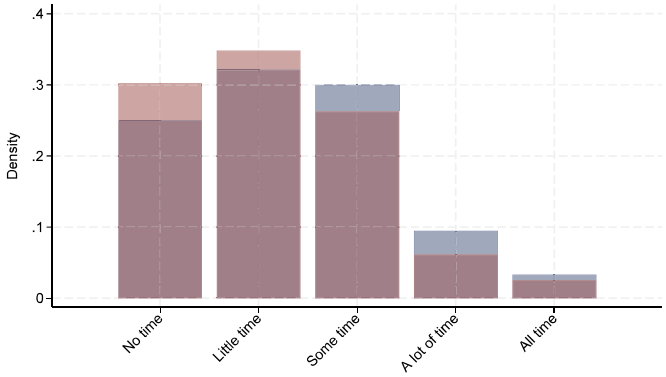

**Panel B.** From others to family



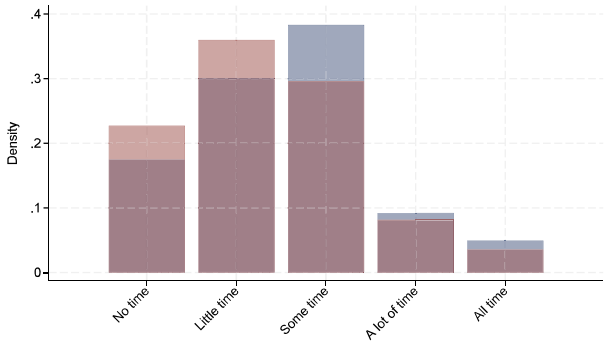

*Notes:* Student self-reported at baseline. Responses from girls in pink. Responses from boys in blue.

**Appendix Figure B12:** How much time the internship will take up regarding:

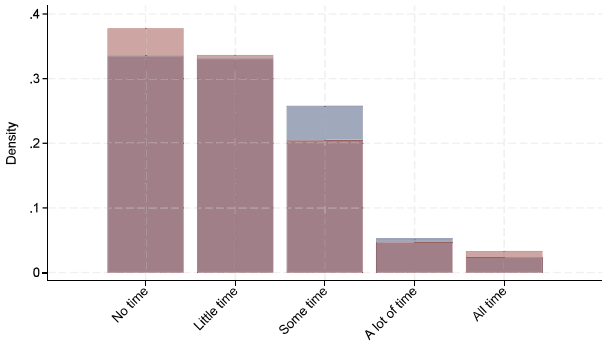
**Panel A.** Leisure




**Panel B.** Studying



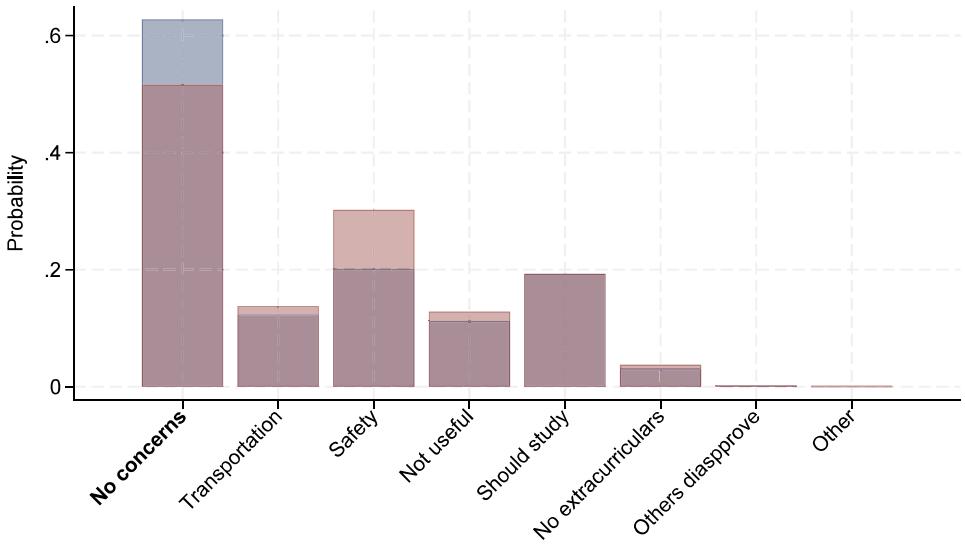

**Panel C.** Chores



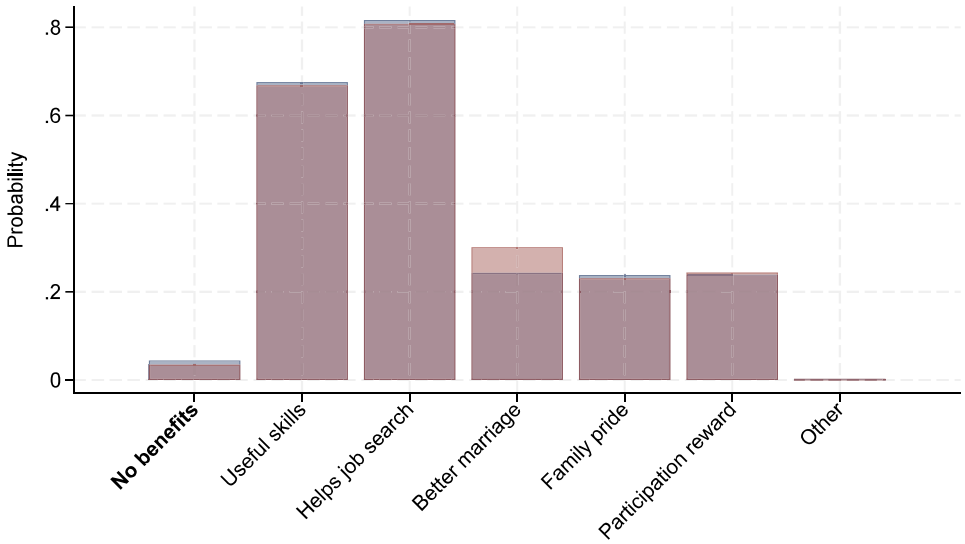

*Notes:* Student self-reported at baseline. Responses from girls in pink. Responses from boys in blue.

**Appendix Figure B13:** Parent attitudes around internship opportunities for high school students

**Panel A.** Concerns




**Panel B.** Benefits




*Notes:* Selected all that apply. Applies to concerns around girls and boys in high school generally. Responses about girls in pink. Responses about boys in blue.