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# Parents' Perceptions of Occupational Fit \*

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## Abstract

We study how adolescents' second-order beliefs about their parents' occupational preferences shape gendered career aspirations. In a consequential early-career choice setting, we combine a parental choice experiment with a randomized salience intervention among students. Parents give gendered recommendations, but students substantially overestimate fathers' preference for boys to choose male-dominated occupations as well as mothers' preference for girls to choose female-dominated occupations. Making the same-gender parent salient raises aspirations for gender-congruent occupations, while highlighting the opposite-gender parent and both parents has no effect. Salience does not shift perceived occupational fit, suggesting that identity-based second-order beliefs can reinforce occupational gender segregation.

JEL classification: J16, J24, I21, C93, D91

Keywords: gender norms; second-order beliefs; occupational aspirations; parental beliefs; identity and career choice; early-career choices; choice experiment; field experiment.

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# 1 Introduction

Despite substantial progress toward gender equality in education and the labor market, occupational gender segregation remains persistent. Boys and girls still pursue different educational tracks and career paths. These choices—such as whether to train in nursing or engineering, or which field of study to pursue—shape later earnings, job characteristics, and opportunities for career advancement (Bertrand, 2020; Blau and Kahn, 2017). Because such patterns often reflect social expectations rather than differences in talent, they may lead to inefficiencies in the allocation of skills, with consequences for individual outcomes, firm productivity, and economic growth (Hsieh et al., 2019; Lise and Postel-Vinay, 2020).

Many educational and occupational decisions are made in adolescence, when students are still forming aspirations and are highly influenced by their social environment (e.g., Bursztyn, Egorov and Jensen, 2019; Carlana, 2019; Getik and Meier, 2025). Parents are central to this process and shape expectations about which types of careers might suit their child (Giustinelli, 2016; Huttunen and Riukula, 2024; Polavieja and Platt, 2014). While prior work documents that parents influence children’s educational choices and long-run outcomes (Altmejd et al., 2021; Brenøe, 2022; Bulman et al., 2021; Chetty et al., 2014), less is known about how adolescents form beliefs about parental views on occupational fit, whether these beliefs are systematically biased, and how they shape aspirations for boys versus girls. We refer to these perceptions as adolescents’ second-order beliefs about parental views: beliefs about their own parents’ expectations and broader beliefs about what mothers and fathers typically recommend for boys versus girls.

This paper examines the role of these beliefs in shaping occupational aspirations. We focus on a novel mechanism through which parental influence can reinforce occupational gender segregation: adolescents form biased second-order beliefs about parental views on occupational fit and these beliefs become especially behaviorally relevant when the same-gender parent is salient. This mechanism fits naturally into an identity-based view of occupational choice (Akerlof and Kranton, 2000). Adolescents care not only about expected outcomes, but also about choosing options that align with identity-relevant norms and with the expectations of salient reference groups such as parents. In a setting where gender norms are central, social role theory implies that perceived fit is inherently gendered, reflecting beliefs about roles appropriate for women and men (Eagly and Wood, 2012).

This framework yields four testable hypotheses. First, parents recommend differ-

ent occupations to otherwise identical girls and boys, and these recommendations are gender-typical. Second, students overestimate how gender-typed parents' recommendations are, consistent with inferring parental views from stereotypes rather than precise signals. Third, making the same-gender parent salient increases students' aspirations for gender-congruent occupations more than making either both parents or the opposite-gender parent salient, reflecting greater weight on an identity-relevant reference group. Finally, if these shifts operate through updated beliefs about one's own suitability, salience should move perceived self-fit in tandem with aspirations.

We study these dynamics in the context of adolescents in Switzerland who are about to choose apprenticeships—a high-stakes early specialization choice comparable to track or field-of-study decisions in other systems. At this stage, around two-thirds of each cohort make a binding decision on their initial occupation, providing a setting well suited to examining the formation of occupational aspirations. This allows us to observe how parental influence operates at a formative moment, when beliefs and social expectations may shape long-term labor market trajectories. We first document that parents are students' most important source of occupational guidance and that parental approval is higher for gender-congruent than for gender-incongruent occupations. This approval gap is largest in same-gender parent-child pairs, and is strongest for sons relative to their fathers.

To more directly study how parents evaluate occupations, we conduct a survey-based choice experiment in which parents recommend occupations to hypothetical boys and girls while holding student ability and occupational preferences constant. When presented with a hypothetical female student, parents on average recommend occupations with a 14-percentage-point higher female share than for an otherwise identical male student, confirming our first hypothesis. This difference is notably larger than those observed among students or teachers, suggesting that parental views may be a particularly potent source of gender-typed expectations. We then examine whether students accurately perceive parents' views. While students generally recognize that parents hold gendered perceptions, they substantially overestimate these biases and markedly overstate how often fathers recommend male-dominated careers to sons and mothers recommend female-dominated careers to daughters. These patterns show that adolescents' second-order beliefs are more gender-typed than parents' actual recommendations, in line with our second hypothesis.

We next test whether making parents salient can influence adolescents' aspirations

and beliefs through a randomized field experiment among students actively searching for apprenticeships. We randomly present information about which occupations parents (or mothers/fathers) of similar children most commonly recommend and then prompt students to consider the views of either both parents, their same-gender parent, or their opposite-gender parent, and we measure how this affects students' occupational aspirations and beliefs. Consistent with our third hypothesis, highlighting the same-gender parent increases aspirations for gender-congruent careers by 0.07 standard deviations (SD), with the largest effects for boys, while we find no detectable effects when either both parents or the opposite-gender parent are made salient. We then test our fourth hypothesis by examining whether salience shifts perceived occupational fit in tandem with aspirations. We do not detect significant changes in beliefs about fit. This suggests an identity-based mechanism in which making the same-gender parent salient activates beliefs (and misperceptions) about parental endorsement rather than updating beliefs about self-fit.

This paper contributes to multiple strands of research. A large body of work has documented the intergenerational transmission of educational attainment and field of study, showing that these outcomes are causally influenced by parental background (Altmejd et al., 2021; Altmejd, 2024; Black, Devereux and Salvanes, 2005; Dahl, Rooth and Stenberg, 2024). However, the mechanisms behind these patterns remain incompletely understood. We contribute to this literature by identifying a novel pathway of transmission: adolescents' second-order beliefs about parental views on occupational fit.

We also contribute to the broader literature on social influences behind gender gaps in educational and occupational outcomes (e.g., Bem, 1981; Bertrand, 2020; Breda et al., 2023; Brenøe and Zölitz, 2020; Carlana, 2019; Correll, 2001; Del Carpio and Guadalupe, 2022; Eccles and Wigfield, 2002). While the role of teachers, peers, and role models has received considerable attention, the causal influence of parents—beyond observed characteristics—remains relatively underexplored. Recent experimental work has begun to isolate causal parental influence by varying different features of the choice environment. Müller (2024) randomizes whether students' stated educational aspirations are observable to parents and shows that observability induces adjustments in reported plans, consistent with parental pressure. Carlana and Corno (2024) vary whether mothers' or fathers' recommendations are made salient before students choose between math and literature tasks and find that parental salience shifts students' perceived comparative advantage and choices in gender-typical directions, with especially strong effects for

girls when mothers are made salient. Wolter and Zöllner (2025) document that adults are more likely to recommend male-dominated careers for hypothetical sons than for hypothetical daughters, suggesting that gendered advice could reinforce occupational gender segregation.

Our study adds to this work by focusing on adolescents' second-order beliefs about parents' views on occupational fit and by isolating a salience-based channel of parental influence. Empirically, we pair a parental choice experiment that randomizes the gender of otherwise identical hypothetical students with a preregistered field experiment among Swiss adolescents searching for apprenticeships. This design allows us to compare adolescents' beliefs about parental views to parents' actual recommendations and identify how these beliefs shape occupational aspirations. Unlike Müller (2024), we do not vary whether parents observe adolescents' stated plans; instead, we hold observability fixed and vary which parent is salient, separating the activation of perceived parental expectations from strategic reporting under visibility. Unlike Carlana and Corno (2024), we study occupational aspirations rather than academic task choice and additionally measure perceived occupational fit. We find that same-gender parent salience shifts aspirations toward gender-congruent occupations without corresponding changes in perceived fit, consistent with an identity-based reference-point mechanism rather than updated self-fit. Together, our findings highlight that gendered parental influence operates not only through parents' advice, but also through adolescents' beliefs about that advice and which parent is salient when aspirations are formed.

## **2 The Swiss Education System and Vocational Pathways**

In many education systems, adolescents make early choices that determine their initial occupational pathway. In Switzerland, this occurs primarily through the apprenticeship-based vocational education and training (VET) system. Apprenticeships play a central role in the education and skills formation of students in Switzerland. In 8<sup>th</sup> grade (age 13–14), most students are in school tracks preparing them for vocational education and training (VET), while about 22% attend the selective academic track (*Gymnasium*), which grants direct access to university (SCCRE, 2023). Roughly two-thirds of students choose VET, most commonly through the dual apprenticeship system, which combines three to four days per week of workplace training with one to two days per week of vocational schooling. Covering more than 230 recognized occupations, apprenticeships last two

to four years and lead to a Federal VET Certificate or Diploma. The system balances practical and academic learning, while also offering flexible routes to further education.

Apprenticeships are typically entered directly after compulsory schooling, at ages 15–16. Apprenticeship graduates can enter the labor market or continue their education; five years after completion, about 29% have enrolled in tertiary education and 16% have pursued additional upper-secondary qualifications (FSO, 2021). Occupational choices are persistent: among those who do not continue studying, more than half remain in their trained occupation five years after graduation (FSO, 2021). This structure lets us observe a clearly defined early occupational choice.

Choosing an apprenticeship is therefore a consequential early decision. From the start of 8<sup>th</sup> grade, students take *occupational orientation*—a subject that often includes short trial apprenticeships (TAs) or company visits. These placements, typically lasting one to five days, give students first-hand experience of different careers. On average, students complete TAs or company visits in 3.3 distinct occupations, with 82% completing these activities in at least two occupations.<sup>1</sup> Apprenticeship applications usually begin in the summer between 8<sup>th</sup> and 9<sup>th</sup> grade, and contracts can be signed up to a year before training starts. Because students are minors, a parent’s co-signature is required, highlighting the important role families play in occupational choices.

### 3 Data and Motivating Evidence

#### 3.1 Data

We analyze three complementary online survey samples from German-speaking Switzerland, covering students at different stages of the apprenticeship search and their parents. All students are observed before entering an apprenticeship: most are still actively searching, and some have already secured contracts but not yet started. Taken together, these datasets provide a rich, multi-perspective view of perceptions of occupational fit in the Swiss VET system. Appendix Table A.1 shows an overview of the three samples and Appendix B provides further details.

Our first dataset, the *parent-student school sample*, includes 757 students in the 8<sup>th</sup> or 9<sup>th</sup> grade without a contract and 570 parents whose children are in this phase. Students

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<sup>1</sup>These statistics are based on 1,885 students (recruited through similar channels as our field experiment sample students, described in Section 3.1) who have already obtained an apprenticeship contract.

report their preferred occupations and perceived parental preferences; parents report the reverse. We also elicit beliefs about parental approval in gender-congruent (GC) and gender-incongruent (GIC) occupations, presented in Subsection 3.2. Data were collected through schools between November 2024 and April 2025.

Our second dataset, the *choice experiment sample*, comprises 1,251 parents, 1,878 students, and 465 teachers.<sup>2</sup> It forms the basis of the choice experiment in Section 4. We collected these data between October 2022 and April 2023 through schools, an occupational fair, teachers' unions, and a major apprenticeship-platform newsletter.<sup>3</sup>

Our third dataset, the *field experiment sample*, consists of 5,955 students without a contract, recruited in two waves (February–April 2024; November 2024–April 2025) via the platform newsletter and (in Wave 1) through schools; Section 5 describes the design. An endline survey in May–June 2025 with Wave 1 students included the choice experiment questions. The resulting endline sample (EL students) consists of 554 students and complements the choice experiment sample.

Appendix Table A.2 reports summary statistics. Student gender is roughly balanced; most parents (76%) and teachers (58%) are female. In the choice experiment sample, approximately 20% of parents and students, and 66% of EL students, report an apprenticeship contract. Most students are aged 13–14 and in 8<sup>th</sup> grade, except EL students in the choice experiment sample, who are almost all in 9<sup>th</sup> grade. The intermediate school track is the most common.

### 3.2 Motivating Patterns in Parental Influence and Gendered Perceptions

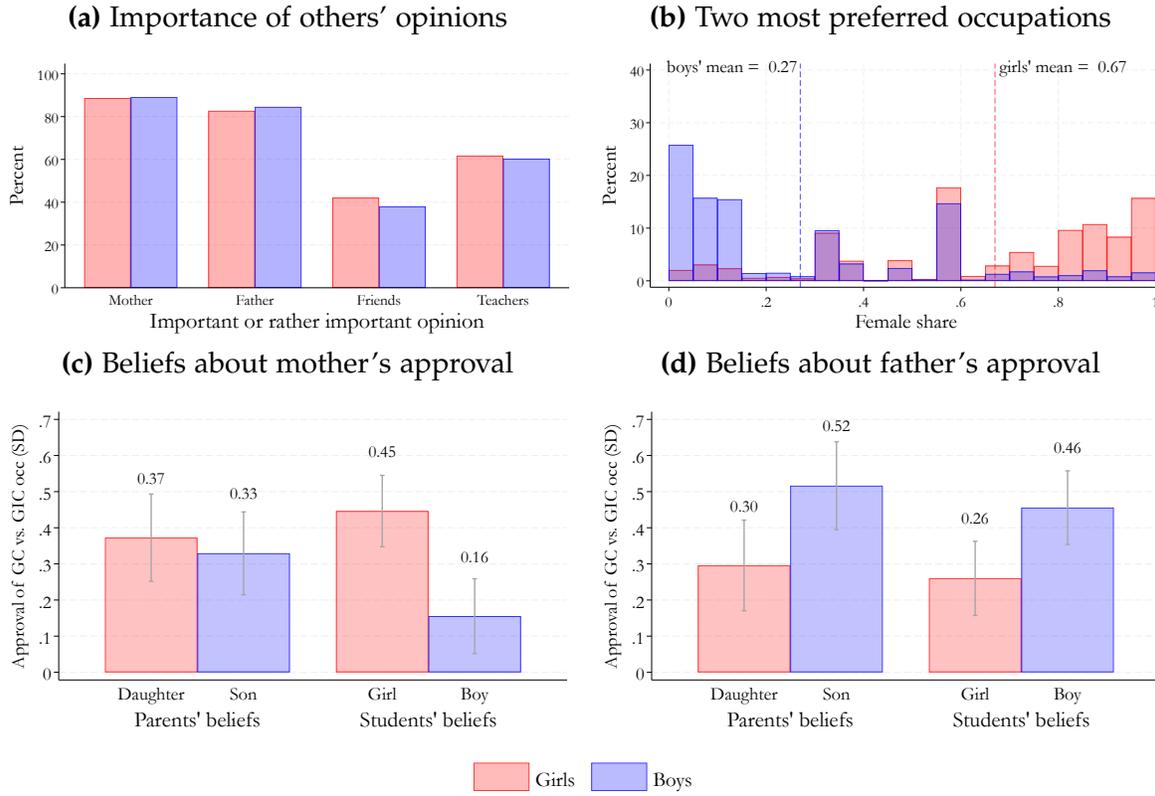
Figure 1 illustrates three patterns: parental influence, gender-typed preferences, and perceived parental approval gaps.

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<sup>2</sup>All students in this sample were randomized into the control group of Brenøe and Wassermann (2026).

<sup>3</sup>The platform is a primary channel for apprenticeship postings in German-speaking Switzerland.

**Figure 1:** Parental influence and occupational gender segregation



*Note:* **Graph (a)** shows the share of students who report that each person's opinion is (rather) important for their apprenticeship choice. **Graph (b)** shows the distribution of the female share in students' two most preferred occupations, with two observations per student. Graphs (a) and (b) use data from the first wave of the field experiment sample: (a) includes all control students, while (b) includes all students, as the question was asked pre-treatment. Vertical lines indicate means for girls (red) and boys (blue). **Graphs (c) and (d)** show differences in beliefs about mothers' and fathers' approval of the child doing an apprenticeship in a gender-congruent (GC) versus a gender-incongruent (GIC) occupation, as reported by parents about their own child and by students about their own mothers and fathers. The bars show coefficients from separate regressions of beliefs about parental approval on an indicator for a gender-congruent and one gender-incongruent occupation. The sample includes parents and students from the parent-student school sample. Beliefs about parental approval are standardized to have a mean of zero and a standard deviation (SD) of one. Vertical gray bars denote 95% confidence intervals.

Graph (a) documents the central role of parents. Students overwhelmingly report that their parents' opinions are (rather) important for their apprenticeship choice: 89% for mothers and 84% for fathers. By contrast, only 40% consider friends important and 61% say so about teachers. These patterns confirm that parents are the primary reference point for adolescents' apprenticeship decisions.

Graph (b) reveals pronounced gender differences in students' preferences: boys' top two occupations average about one-quarter female apprentices, versus about two-thirds for girls.<sup>4</sup> The same gap appears in realized placements (Appendix Figure A.1).

<sup>4</sup>The spike at 58% women in the apprenticeship for both girls and boys corresponds to the popular commercial clerk (KV) apprenticeship, which accounts for around 20% of all apprentices (FSO, 2025).

These patterns underscore that occupational aspirations and choices are highly gender-segregated.

Graphs (c) and (d) provide direct evidence on gendered perceptions of occupational fit. In the parent–student school sample, parents and students report perceived maternal and paternal approval for a gender-congruent and a gender-incongruent occupation, for randomly assigned occupation pairs (Appendix Table A.3). Parents report their own approval for their child and their beliefs about the other parent’s approval; students report their beliefs about their mother’s and father’s approval.

Three patterns emerge. First, across all respondents, both mothers and fathers are perceived as substantially more approving of gender-congruent than gender-incongruent occupations: the estimated differentials range from 0.16 to 0.52 standard deviations (SD). Second, students’ beliefs exhibit a strong same-gender pattern: girls perceive a larger approval gap for mothers than for fathers, while boys perceive the opposite. Third, parents’ own reports partly validate these perceptions. Fathers display considerably larger approval gaps for sons than for daughters, whereas mothers show similar approval gaps for sons and daughters. These patterns persist in matched student–parent pairs reporting on the same occupations (Appendix Figure A.2), and suggest that perceived parental approval is particularly gendered in same-gender parent–child pairs.

Overall, the descriptive evidence underscores three themes motivating our framework and experiments: parental opinions carry the greatest weight in occupational choice, adolescents’ aspirations are already strongly gender-typed, and perceived parental approval—elicited about one’s own mother and father—is particularly gendered in same-gender parent–child pairs.

## **4 Perceptions of Occupational Fit: Evidence from Hypothetical Profiles**

### **4.1 Design of the Choice Experiment**

We use a choice experiment to test the first two hypotheses outlined in the introduction. The first hypothesis asks whether parents systematically recommend different occupations to otherwise identical girls and boys, reflecting gender-typical patterns. The second asks whether students overestimate the gender-typing of parental recommendations.

We conducted a choice experiment among three types of respondents—parents, stu-

dents, and teachers—to examine how individuals recommend potential occupational trajectories for hypothetical students with different characteristics. The survey structure was identical across groups, but the framing was adapted to each perspective; Appendix Figure A.3 illustrates the presentation of student profiles in the survey. Parents imagined four hypothetical students attending the same 8<sup>th</sup> grade class as their child, while teachers considered six hypothetical students in their own classroom. Students in 8<sup>th</sup> grade imagined these individuals as classmates, and 9<sup>th</sup> graders as younger students at their school. To create a relatable scenario, respondents were told that the hypothetical students had worked hard in math and German but differed in talents and grades, and were considering which apprenticeship to pursue after 9<sup>th</sup> grade.

Respondents viewed detailed profiles of each student. For each profile, we randomized attributes: name and photo (balanced by gender), math and German grades, a broad interest (math, languages, or social interaction), and a career priority (high salary, good work-life balance, helping others, or good promotion prospects). These attributes were selected to make the student profiles concrete and comparable while keeping the information set manageable. By presenting several academically and professionally relevant characteristics, we reduce the relative emphasis on gender, which varies only subtly through the randomized name and photo. Respondents then answered: “Which apprenticeships do you think would fit well to [NAME]? Please give her/him 2 suggestions.” They chose from 13 common apprenticeships varying in gender composition and skill requirements (see Appendix Table A.4), with short descriptions accessible via a clickable information box.<sup>5</sup>

In the endline survey among students from our field experiment sample, we included a shortened version of the choice experiment. Each student recommended occupations for one hypothetical female and one hypothetical male student. After making these recommendations, students were told that parents of similar children had also suggested occupations for the same profiles. We then asked them which two occupations they believed mothers and fathers in our parent sample had most frequently recommended for each. To incentivize accuracy, students were entered into a lottery for an iPhone for each correct guess. This design enables us to compare students’ beliefs about parental recommendations to the actual recommendations made by parents.

We quantify recommendations using three outcomes based on the two suggested

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<sup>5</sup>Appendix Figure A.4 shows that respondents generally possess good knowledge of occupational characteristics; their estimates of skill requirements and earnings are positively correlated with actual values.

occupations: (i) the average female share among apprentices in the recommended occupations, providing a continuous measure of gender-typing; (ii) an indicator for recommending at least one care occupation (ISCED 09); and (iii) an indicator for recommending at least one STEM occupation (ISCED 05–07). These measures capture both the gender composition and substantive domain of the recommended pathways.

**Empirical strategy.** Our choice experiment allows us to examine (i) whether respondents recommend different occupations to hypothetical female versus male students, and (ii) how students’ beliefs about parental recommendations compare with what parents actually recommend. First, we examine whether respondents systematically recommend different occupations to hypothetical female versus male students, holding all other profile characteristics constant. While our primary focus is on parents’ recommendations, we also estimate the same specification for students and teachers to compare magnitudes across respondent groups. For each outcome, we estimate the following regression at the hypothetical-student level:

$$Y_{hi} = \beta_0 + \beta_1 \text{Female}_h + X'_h \delta + \theta_i + \varepsilon_{hi}, \quad (1)$$

where  $Y_{hi}$  is respondent  $i$ ’s recommendation for hypothetical student  $h$ , and  $\text{Female}_h$  indicates the student’s gender. The vector  $X_h$  includes the randomized profile attributes (grades, interests, and career priorities). Respondent fixed effects  $\theta_i$  ensure identification comes from within-respondent comparisons of profiles differing only in gender. Standard errors are clustered at the respondent level. The coefficient  $\beta_1$  captures the average gender gap in recommended occupations, conditional on otherwise identical characteristics.

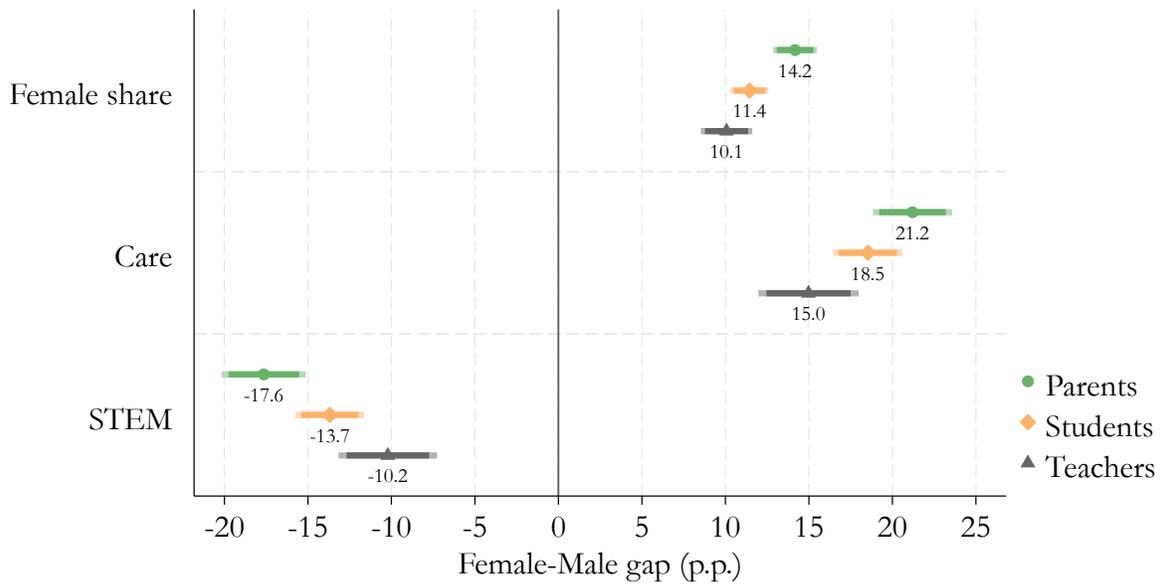
Second, we assess how students’ beliefs about parents’ occupational recommendations align with the recommendations parents actually make, and whether this differs for hypothetical boys and girls. We adjust for differences in the hypothetical students’ characteristics and the respondent’s (or their child’s) school track,  $S_i$ , allowing us to predict the average recommendation or belief for each respondent type while holding these factors constant. We estimate the following regression separately for male and female hypothetical students:

$$Y_{hi} = \gamma_0 + \gamma_t \text{RespondentType}_{it} + X'_h \mu + \lambda S_i + u_{hi}. \quad (2)$$

Here,  $Y_{hi}$  and  $X_h$  are defined as in Equation 1 and  $\text{RespondentType}_{it}$  indicates whether the recommendation comes from parents, students, or from students' beliefs about mothers or fathers. For each hypothetical student gender, we predict mean recommendations for each respondent type by averaging over the observed distributions of  $X_h$  and  $S_i$ . This shows how closely students' beliefs match parental recommendations and highlights systematic misperceptions.

## 4.2 Occupational Recommendations by Hypothetical Student Gender

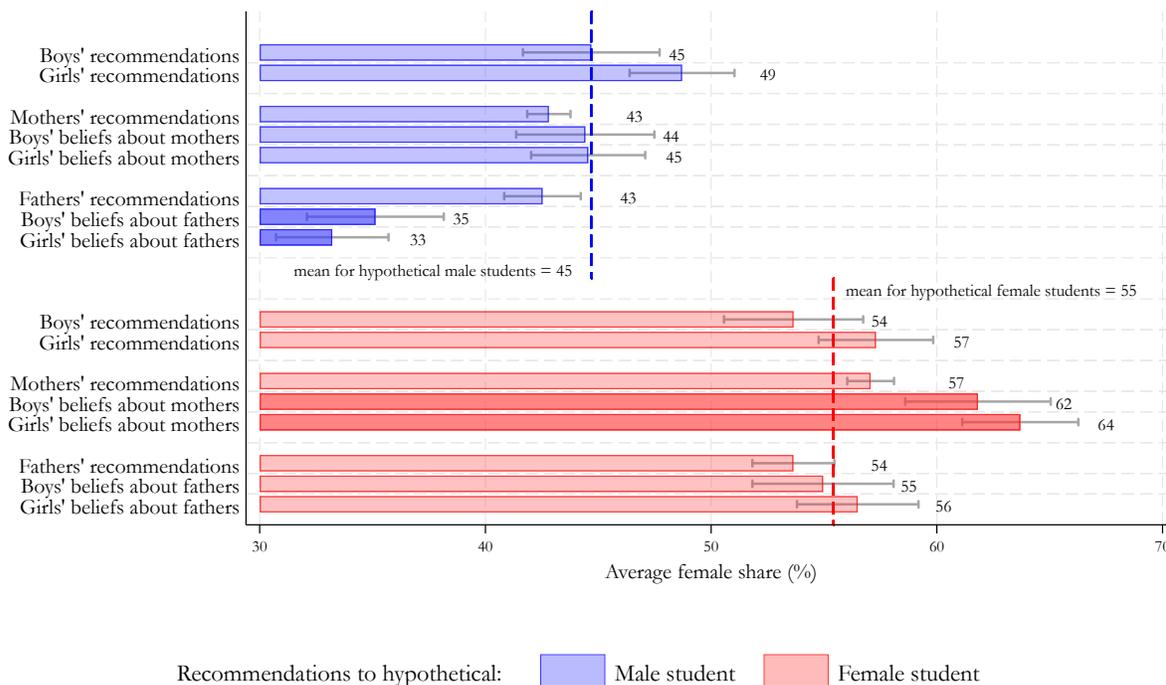
**Figure 2:** Gender differences in recommendations by parents, students, and teachers



*Note:* The figure shows the coefficient on the hypothetical student being female from regressions of three outcomes: the average female share of the two recommended occupations, a dummy for at least one care recommendation, and a dummy for at least one STEM recommendation (all in percentage points). The sample includes all parents, students, and teachers from the choice experiment sample (excluding EL students). These regressions correspond to Equation (1) and include respondent fixed effects; standard errors are clustered at the respondent level. Shaded bars represent confidence intervals: lighter (darker) shading denotes 95% (90%) intervals.

Figure 2 reveals substantial gender gaps in occupational recommendations. Consistent with our first hypothesis, parents recommend gender-typical occupations: female students receive recommendations with 14 percentage points higher female representation than otherwise identical male students. For context, this corresponds to the difference in female share between design engineers (11%) and gardeners (25%). They are also 21 percentage points more likely to suggest care occupations and 18 percentage

**Figure 3: Students’ perceptions of parental recommendations**



*Note:* The figure shows the predicted average female share of recommendations to hypothetical male and female students by type of recommender or belief. The sample includes all parents and EL students from the choice experiment sample. The predictions are described for Equation (2). Robust standard errors are used. Horizontal gray bars denote 95% confidence intervals. Vertical lines denote the means of students’ and parents’ recommendations to hypothetical male (blue) and female (red) students.

points less likely to suggest STEM occupations for girls. Students and teachers display similar but smaller gender gaps: students recommend occupations with 11 percentage points higher female representation to girls, while the gap in teachers’ recommendations is 10 percentage points. The difference between students’ and teachers’ gender gaps is not statistically significant, but the gap for parents is significantly larger than for both groups.

These findings raise a key question: do students accurately perceive parents’ gendered occupational recommendations? Figure 3 addresses this by comparing students’ beliefs about mothers’ and fathers’ recommendations with parents’ actual choices and students’ own recommendations. Across all respondent types, we observe a gender gap: the average female share of recommended occupations is higher for hypothetical female students than for male students.

For hypothetical male students, mothers and fathers recommend occupations with

a similar average female share (both 43%). Students' estimates of mothers' recommendations (44–45%) closely match mothers' actual choices, and neither difference is statistically significant. However, students significantly ( $p < 0.01$ ) underestimate the female share of fathers' recommendations to hypothetical male students: both boys and girls believe that fathers suggest occupations with only about 34% female apprentices (indicated with dark blue bars). In other words, both boys and girls believe fathers recommend more male-dominated occupations to boys than they actually do. Within our identity-based framework, these second-order beliefs about fathers' recommendations in general are likely to particularly shape boys' perceptions of which occupations "fit" them, because the same-gender parent serves as a salient reference point.

Turning to hypothetical female students, we find an analogous pattern, but now for beliefs about mothers. Boys and girls accurately anticipate fathers' recommendations (55–56% versus 54%) and students' own recommendations are also similar to their beliefs about fathers' choices. However, students significantly ( $p < 0.01$ ) overestimate how female-dominated mothers' recommendations are: they believe mothers would recommend occupations with about 63% female apprentices to hypothetical female students, compared to an actual share of 57%. Students' beliefs about mothers' recommendations are thus significantly ( $p < 0.01$ ) more female-dominated than both mothers' actual choices and their own recommendations.

Taken together, these results suggest that while students correctly recognize that parents' perceptions are gendered, they systematically overestimate fathers' preference for male-dominated occupations for boys and mothers' preference for female-dominated occupations for girls. To put magnitudes into perspective, students perceive the gender gap in fathers' recommendations to be almost twice as large as the actual gap, and they overstate the gap in mothers' recommendations by roughly one third. In line with our second hypothesis, adolescents' second-order beliefs about parents are more gender-typed than parents' actual recommendations, particularly for the same-gender parent. We observe similar patterns for recommending an occupation in care and in STEM (Appendix Figure A.5). These results also align with our findings in Section 3.2 that students believe differences in parental support for choosing gender-congruent versus gender-incongruent occupations to be larger when the child and parent are of the same gender.

## 5 Field Experiment on Parental Influence and Occupational Aspirations

### 5.1 Design of the Parental Salience Intervention

We conducted a two-wave field experiment to examine whether increasing parental salience influences students' aspirations for and beliefs about gender-congruent occupations. We expected that making parental views salient, and providing information about what other parents think, would reinforce gender segregation in students' occupational preferences. Both waves were preregistered in the AEA RCT Registry (Brenøe and Rutnam, 2024a,b).

Students were randomly assigned to a control group or one of three treatments that differed only in the parent referenced: both parents (T<sub>1</sub>), the same-gender parent (T<sub>2</sub>: mothers for girls, fathers for boys), or the opposite-gender parent (T<sub>3</sub>: fathers for girls, mothers for boys). Aside from the parental reference, content and structure were identical across arms. For clarity, we describe the both-parents treatment (T<sub>1</sub>) in detail below. In our pre-registered analysis plan, and consistent with the third and fourth hypothesis outlined in the introduction, we hypothesized that T<sub>1</sub> and T<sub>2</sub> would increase interest in gender-congruent occupations, with larger effects for T<sub>2</sub>, and that any such increases would be accompanied by higher perceived fit in these occupations. Based on Wave 1 results, we further expected T<sub>3</sub> to reduce gender-congruent aspirations.

The treatment consisted of two components: an *information* component and a *priming* component. In the information component, students were informed that many parents of similarly aged and similarly performing children viewed certain occupations as a good fit for children of the same gender—healthcare assistant, medical secretary and assistant, and social care worker for girls, or design engineer, information technologist, and mechanical engineer for boys. Each student was randomly shown two of the three occupations for their gender. These occupations are heavily gender-segregated (Appendix Table A.3) and were also frequently recommended by parents in our choice experiment sample.

Following the information component, the priming component aimed to increase the salience of the student's parents in relation to their occupational choices. Students answered questions about parental involvement in their career decisions. Specifically, they reported how often they had discussed career choices with their parents, how well

they believed their parents thought they would fit the gender-congruent occupations presented in the information component, which factors their parents considered important when choosing a career, and which occupations their parents thought would suit them well. In contrast, control-group students answered unrelated questions about TAs and the factors they personally considered important for their own career choice. Each treatment effect should be interpreted as the combined effect of the information and parent-salience prompts relative to control. In Wave 2, control students were also asked which occupations they prefer.<sup>6</sup>

Appendix Section B.7 details the survey questions for each wave. In Wave 1, students were randomized to the control group, T1, or T2, stratified by gender and whether their baseline top-choice occupation is heavily dominated by their own gender ( $\geq 70\%$ ); 40% were assigned to control and 30% each to T1 and T2. In Wave 2, students were randomized to the control group or T3, stratified by gender, an attention check, and a proxy for high math skills; half were assigned to each group.<sup>7</sup> Baseline characteristics are well balanced across treatment arms (Appendix Tables A.5, A.6, and A.7).

We pre-specified two primary outcomes, both measured immediately after the intervention. Gender-congruent aspirations (*GC aspirations*) are captured by a covariance-weighted index of two components: (i) the own-gender share in an incentivized TA choice and (ii) points allocated across four fictive apprenticeship offers, reflecting preferences for gender-congruent versus gender-incongruent occupations. Corroborating the relevance of this measure, Appendix Figure A.6 shows that *GC aspirations* are strongly positively correlated with the own-gender share in students' final apprenticeship contracts in the EL sample. Gender-congruent beliefs (*GC beliefs*) are measured by a covariance-weighted index based on three questions on perceived skill fit, enjoyment of tasks, and expected collegial fit for two gender-congruent occupations (one shown in the information component, and one not shown). Both indices are standardized to have mean zero and SD one in the control group.<sup>8</sup>

**Descriptive evidence on the treatment.** The intervention appears effective in increasing the salience of parents' views. Immediately afterward, around 60% of treated stu-

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<sup>6</sup>These questions were added to better balance survey length across treatment and control groups.

<sup>7</sup>In Wave 2, we did not elicit students' occupational preferences prior to treatment to avoid attenuating treatment effects; only control students reported preferences. High math skills are defined as being in the high school math track, or in the middle, mixed or other track with a math grade of at least 5.0 ("good" in the Swiss grading system).

<sup>8</sup>See Appendix Section B.1 for details.

dents reported that their parents thought they would fit well or very well in the two gender-congruent occupations shown. Girls were slightly more likely than boys to report this (Appendix Figure A.7), possibly because the occupations displayed to girls are more common. Conversations about career choices were also frequent: roughly 45% reported talking “much” and about 30% “very much” with their parents. Together, these responses indicate that students frequently discuss occupational choice with their parents and that the treatment successfully prompted them to consider their parents’ views.

**Empirical strategy.** Our goal is to estimate the causal effects of the interventions on students’ gender-congruent aspirations and beliefs. To avoid contamination bias, we separately compare each treatment arm to the control group within the same experimental wave, following Goldsmith-Pinkham, Hull and Kolesár (2024): T<sub>1</sub> and T<sub>2</sub> are compared to the Wave 1 control group, and T<sub>3</sub> to the Wave 2 control group. For each primary outcome, we estimate the following individual-level regression:

$$Y_i = \beta_0 + \beta_1 \text{Treat}_i^n + X_i' \delta + \gamma_S + \varepsilon_i, \quad (3)$$

where  $Y_i$  is the outcome for student  $i$ , and  $\text{Treat}_i^n$  is an indicator equal to one if the student was assigned to treatment arm  $n$  and zero otherwise.  $X_i$  includes baseline covariates: age, grade, school track, math and German grades, prior TA experience, region, and recruitment month.<sup>9</sup> For Wave 1, we additionally control for recruitment channel and the own-gender share of baseline occupational preferences.  $\gamma_S$  denotes strata fixed effects. We use heteroskedasticity-robust standard errors and apply inverse probability weights (IPW) to adjust for small imbalances in attrition for boys (Appendix Table B.4).<sup>10</sup> As prespecified, our primary analysis pools male and female students. We also examine heterogeneity by gender, stage in the occupational choice process (8<sup>th</sup> grade versus higher), and math proficiency.

## 5.2 Effects of Parental Salience on Occupational Aspirations

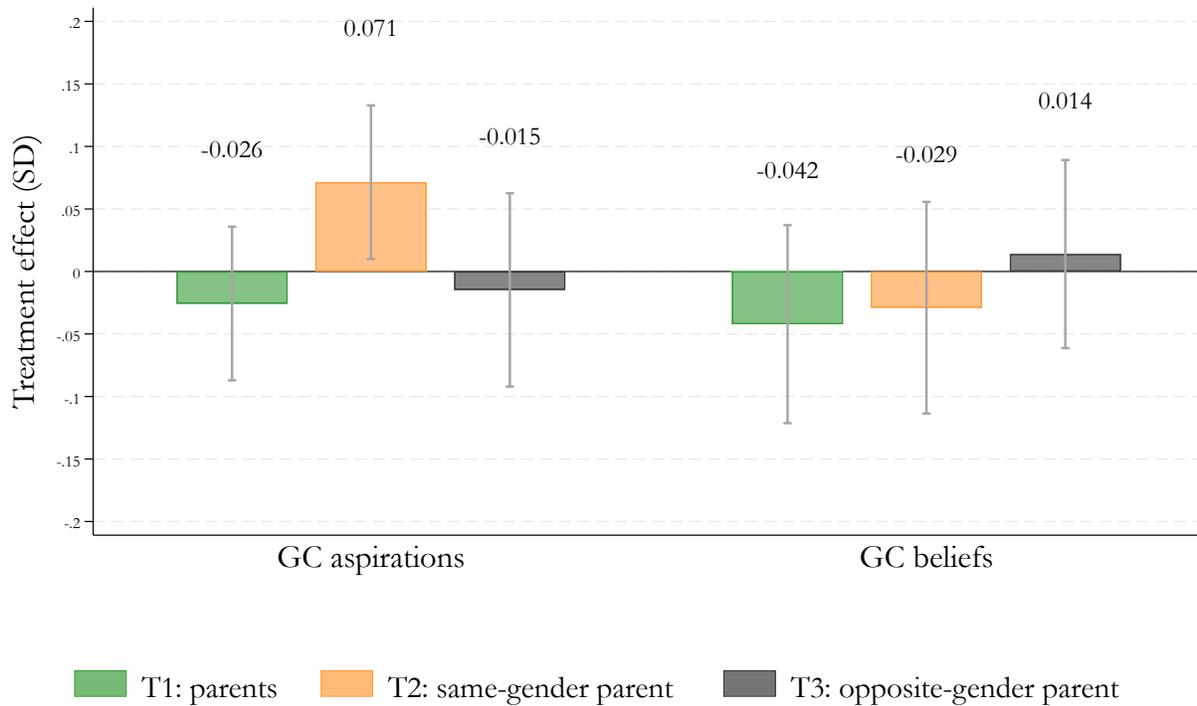
We now examine how increasing the salience of both parents (T<sub>1</sub>), the same-gender parent (T<sub>2</sub>), and the opposite-gender parent (T<sub>3</sub>) affects students’ gender-congruent aspirations and beliefs (Figure 4). Making either both parents or the opposite-gender

<sup>9</sup>See Appendix Section B.2 for details.

<sup>10</sup>Results are similar without IPW (Appendix Table B.5).

parent salient has no significant effect on aspirations, with estimates close to zero in the pooled sample. In contrast, emphasizing the same-gender parent raises aspirations for gender-congruent occupations by 0.071 SD, consistent with our third hypothesis that cues about the same-gender parent have the strongest impact on aspirations. Although our fourth hypothesis predicts that perceived self-fit could act as a mechanism driving these effects, we detect no significant changes in gender-congruent beliefs. Thus, parental salience shifts the subjective value of gender-congruent occupations without systematically changing perceived self-fit.

**Figure 4:** Treatment effects on aspirations and beliefs



*Note:* Each bar represents the coefficient on the treatment dummy from separate regressions of gender-congruent (GC) aspirations and beliefs on each of the three treatment dummies. This analysis is based on the field experiment sample. GC aspirations is a covariance-weighted average of the own-gender share of the trial apprenticeship (TA) lottery occupation and the average points given to GC occupations, standardized to have a mean of zero and SD of one in the control group. GC beliefs is a covariance-weighted average of three belief items, similarly standardized. All regressions control for gender, age, grade, school track (math and German), subject grades, region, month of recruitment, number of prior TAs, and strata fixed effects. Regressions for T1 and T2 also control for recruitment channel, and average own-gender share of baseline occupational preferences. IPW adjusts for differential attrition. Robust standard errors are used. Vertical gray bars denote 95% confidence intervals.

**Table 1: Heterogeneity in treatment effects on students’ aspirations and beliefs**

	Gender			Grade		Math skills	
	All (1)	Boys (2)	Girls (3)	8th (4)	Higher (5)	Low (6)	High (7)
<b>Panel A: GC aspirations</b>							
T1: parents	-0.026 (0.031)	0.019 (0.043)	-0.068 (0.045)	-0.045 (0.035)	0.014 (0.066)	0.001 (0.045)	-0.053 (0.044)
T2: same-gender parent	0.071** (0.031)	0.093** (0.045)	0.036 (0.043)	0.089*** (0.034)	-0.016 (0.078)	0.110** (0.047)	0.031 (0.043)
T3: opposite-gender parent	-0.015 (0.039)	0.040 (0.051)	-0.083 (0.061)	0.017 (0.049)	-0.088 (0.067)	-0.001 (0.064)	-0.021 (0.050)
Number of observations							
C + T1	2,141	1,102	1,039	1,617	524	1,058	1,083
C + T2	2,016	992	1,024	1,574	442	983	1,033
C + T3	2,674	1,489	1,185	1,747	927	1,029	1,645
Control mean							
1 <sup>st</sup> wave	0.000	0.096	-0.103	0.016	-0.053	0.074	-0.069
2 <sup>nd</sup> wave	0.000	0.089	-0.113	0.017	-0.033	-0.007	0.005
<b>Panel B: GC beliefs</b>							
T1: parents	-0.042 (0.040)	0.003 (0.057)	-0.090 (0.058)	-0.045 (0.046)	-0.097 (0.086)	-0.045 (0.061)	-0.043 (0.054)
T2: same-gender parent	-0.029 (0.043)	-0.007 (0.062)	-0.045 (0.059)	0.008 (0.048)	-0.155 (0.101)	0.013 (0.064)	-0.084 (0.059)
T3: opposite-gender parent	0.014 (0.038)	0.075 (0.050)	-0.062 (0.060)	0.064 (0.047)	-0.094 (0.066)	0.011 (0.063)	0.010 (0.048)
Number of observations							
C + T1	2,182	1,125	1,057	1,650	532	1,072	1,110
C + T2	2,062	1,012	1,050	1,605	457	1,003	1,059
C + T3	2,732	1,518	1,214	1,790	942	1,057	1,675
Control mean							
1 <sup>st</sup> wave	0.000	-0.187	0.198	0.015	-0.049	-0.081	0.075
2 <sup>nd</sup> wave	-0.000	-0.167	0.212	0.013	-0.024	-0.101	0.065

*Note:* This table reports coefficients from separate regressions of gender-congruent (GC) aspirations and gender-congruent (GIC) beliefs on each treatment dummy, estimated in different subsamples. This analysis is based on the field experiment sample. Panels correspond to the two outcomes; columns indicate subsamples; rows report treatment coefficients. The number of observations reflects the control and treatment groups used in each comparison. Control group means for each subsample are shown by wave. Variable construction, controls, and weighting follow the specification described in the note of Figure 4. Robust standard errors are reported in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Table 1 explores heterogeneity in treatment effects on gender-congruent aspirations (Panel A) and beliefs (Panel B) by key student characteristics. Column (1) reports the pooled effects from Figure 4, while the remaining columns present subsample results. The effect of the same-gender parent treatment on gender-congruent aspirations is driven by boys, whose aspirations increase by 0.093 SD ( $p < 0.05$ ), compared to a smaller, insignificant 0.036 SD for girls. Effects are also concentrated among 8<sup>th</sup> graders (0.089 SD) and students with lower math proficiency (0.110 SD)—groups earlier in the occupational decision-making process and more likely to select gender-typical careers. The significant effect of the same-gender parent treatment for boys, but not girls, may reflect that girls have already internalized their mothers’ views, while boys remain more

responsive to same-gender cues due to stronger gender identity norms. These patterns align with evidence that gender norms are more tightly linked to economic behavior for men than for women (Brenøe et al., 2024).

For the both-parents treatment, the small negative point estimate in the pooled sample appears to be driven by girls, among whom the intervention reduces aspirations for female-dominated occupations by 0.068 SD and lowers gender-congruent beliefs by 0.090 SD, though neither estimate is statistically significant.<sup>11</sup> Finally, we find no evidence that highlighting the opposite-gender parent affects aspirations or beliefs in any subsample.

These effects mirror patterns in the choice experiment and belief data. The choice experiment shows that students overestimate how strongly fathers favor male-dominated occupations for boys and how strongly mothers favor female-dominated occupations for girls. In the belief data on perceived parental approval (Figure 1), both students and parents perceive fathers as relatively more supportive of gender-congruent choices for boys, and students perceive mothers as relatively more supportive of such choices for girls. Taken together, these patterns from distinct samples indicate that students perceive their same-gender parent to have more strongly gendered views about their occupational choice.

These results are also consistent with the occupations students report their own parents think suit them best. Appendix Figure A.8 shows that the occupations that boys' fathers think suit them best are substantially more male-dominated than the occupations boys' mothers think suit them best. At the 25<sup>th</sup> percentile of the distribution, fathers think occupations with a 62% male share suit them best, compared to a 42% male share for mothers. Similarly, the occupations girls' mothers think suit them best are substantially more female-dominated than the occupations girls' fathers think suit them best. At the 25<sup>th</sup> percentile, mothers think occupations with a 58% female share suit them best, while fathers think occupations with a 38% female share suit them best. Overall, these patterns suggest that students' responsiveness to same-gender parent salience reflects both accurate perceptions—realizing that same-gender parents do favor gender-congruent careers more—and misperceptions, overestimating the strength of these preferences.

Overall, the results indicate that parental views—especially those of the same-gender

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<sup>11</sup>These findings informed our hypothesis that the opposite-gender parent might exert a countervailing influence relative to the same-gender parent.

parent—can shape students’ occupational aspirations in gender-typical directions, even in response to a light-touch intervention. However, we find no consistent evidence that these salience cues shift students’ own beliefs about fit. The effects are concentrated among boys, who both overestimate fathers’ preferences and face more gendered paternal encouragement.

## 6 Conclusion

Parents’ views of “what fits” can shape adolescents’ occupational aspirations as they select upper-secondary tracks or fields of study. This paper shows that parents recommend substantially different occupations to hypothetical boys and girls, and that students overestimate the same-gender parent’s preferences for gender-congruent careers. In a field experiment, a light-touch intervention that makes the same-gender parent salient shifts students’ aspirations toward gender-congruent occupations, particularly for boys. These shifts occur without detectable changes in perceived self-fit, consistent with a channel operating through perceived parental expectations or identity rather than through updating self-assessments. This highlights how social expectations, rather than internal evaluations of ability, can shape career intentions.

Our findings underscore the role of second-order beliefs—what adolescents think their parents think—in reinforcing gender-typical aspirations. Even subtle cues, such as reflecting on a specific parent’s views, can activate beliefs that influence consequential decisions. This mechanism helps explain how gendered aspirations persist absent explicit pressure. Efforts to reduce occupational segregation may benefit from addressing both actual parental preferences and adolescents’ misperceptions, for example through guidance programs that engage parents or encourage explicit conversations about occupational fit.

While our study focuses on Swiss students navigating a vocational education system, these mechanisms are likely relevant in other contexts where students specialize early and family influence is strong. The interplay between perceived expectations, social identity, and gendered norms likely transcends country or institutional context. Recognizing these dynamics is critical for designing interventions that broaden opportunity and reduce early educational and occupational segregation.

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# **Parents' Perceptions of Occupational Fit**

Online Appendix

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Daphne Rutnam

# A Appendix Figures and Tables

## A.1 Tables

**Table A.1:** Overview of samples

Sample	Subsamples	Purpose	Paper exhibits	Data collection	Recruitment	N
<b>Parent-student school sample</b>	Parents	Descriptive statistics	Figure 1 (c) and (d)	November 2024 - April 2025	Schools	570
	Students	Descriptive statistics	Figure 1 (c) and (d)	November 2024 - April 2025	Schools	757
<b>Choice experiment sample</b>	Parents	Choice experiment	Figure 2, Figure 3	October 2022 - January 2023	Schools, newsletter	1,251
	Students	Choice experiment	Figure 2	October 2022 - April 2023	Schools, newsletter	1,878
	Teachers	Choice experiment	Figure 2	October 2022 - December 2022	Schools, occupational fair, teachers' unions	465
	EL students	Choice experiment (beliefs about parents)	Figure 3	May - June 2025	Field experiment sample students (W1)	554
<b>Field experiment sample</b>	Students (W1)	Descriptive statistics, field experiment	Figure 1 (a) and (b), Figure 4, Table 1	February - April 2024	Schools, newsletter	3,223
	Students (W2)	Field experiment	Figure 4, Table 1	November 2024 - April 2025	Newsletter	2,732

*Note:* This table lists all samples used in the paper. For each sample, the table reports the subsamples, the purpose for which the data is used, the paper exhibits in which the data is used, the data collection period, the recruitment channels, and the number of observations (N). Students (W1) and students (W2) correspond to the two waves of the field experiment sample. Endline (EL) students refers to the sample of students from the first wave of the field experiment sample who completed the endline survey and are included in the choice experiment.

**Table A.2: Sample characteristics**

	Parent-student school sample		Choice experiment sample				Field experiment sample
	Parents	Students	Parents	Students	Teachers	EL students	Students
<b>Channel of recruitment</b>							
Schools	100.0	100.0	91.5	32.9	36.3	36.5	23.0
Newsletter choice experiment			8.5	67.1			
Newsletter experiment W1						63.5	31.2
Newsletter experiment W2							45.9
Occupational fair					44.9		
Teachers' unions					18.7		
<b>Characteristics</b>							
Female respondent	76.7	56.1	75.9	46.2	58.3	57.8	46.9
Apprenticeship contract	0.0	0.0	19.3	18.3		65.7	0.0
Daughter	55.4		46.7				
Student age: 13-14		72.4		59.3			69.5
8th grade	82.5	77.5	45.2	53.6		0.0	71.3
9th grade	17.5	22.5	37.8	35.1		85.6	20.0
<b>School track</b>							
Low school track	21.2	30.8	16.1	18.6	35.3	13.0	17.2
Intermediate school track	48.1	42.8	43.4	41.9	25.6	44.9	41.7
High school track	24.7	19.0	34.2	32.1	6.9	35.4	33.3
<b>Region</b>							
Lake Geneva region	4.4	4.8	0.0	0.4	4.5	3.8	2.5
Espace Mittelland	18.8	12.3	16.2	19.5	27.1	20.0	19.2
Northwestern Switzerland	4.2	12.0	20.8	16.5	12.7	9.0	11.8
Zurich	24.6	24.4	32.5	29.1	20.2	25.1	29.2
Eastern Switzerland	38.6	32.0	17.7	21.6	25.6	30.9	27.3
Central Switzerland	8.6	13.7	12.8	12.8	9.5	11.2	10.0
<b>Survey duration (minutes)</b>							
Median	12.6	12.4	14.0	12.7	9.9	7.2	10.9
Number of observations	570	757	1,251	1,878	465	554	5,955

*Note:* This table displays summary statistics of the samples. Shares in each sample are reported as percentages. Endline (EL) students refers to the sample of students from the first wave of the field experiment sample who completed the endline survey and are included in the choice experiment. The three newsletter recruitment channels correspond to three waves: newsletter choice experiment (October 2022 to April 2023), newsletter experiment W1 (February to April 2024), and newsletter experiment W2 (November 2024 to April 2025). In all samples, most of the students not aged 13-14 are aged 15-16, with few aged 17-18. Students in 10<sup>th</sup> grade or other grades are reported as "other" and not shown separately. Low, intermediate, and high school track refer to standardized school tracks across cantons. Mixed and other school tracks are omitted in this table. The high share of teachers in the low school track reflects a survey instruction: teachers who do not teach in secondary school, or who teach in a mixed secondary school, are asked to consider students in the low school track and are therefore classified as such.

**Table A.3: GC and GIC occupations**

Occupation (DE)	Occupation (EN)	Female share (%)	No. graduates	Math req.	German req.	Expected earnings (CHF)
<b>GC for boys/GIC for girls</b>						
Polymechaniker/in EFZ	Mechanical engineer	3.4	1,032	73	43	84,772
Informatiker/in EFZ	Information technologist	7.9	1,571	59	56	108,131
Konstrukteur/in EFZ	Design engineer	11.4	424	82	53	96,229
<b>GC for girls/GIC for boys</b>						
Fachmann/-frau Betreuung EFZ	Social care worker	84.5	2,506	27	74	85,309
Fachmann/-frau Gesundheit EFZ	Healthcare assistant	88.1	3,947	24	72	96,791
Medizinische/r Praxisassistent/in EFZ	Medical secretary and assistant	99.1	837	37	71	94,784

*Note:* This table displays the gender-congruent (GC) and gender-incongruent (GIC) occupations used in the questions regarding beliefs about fit and in the information treatment of the experiment. For each occupation, the table also reports the average female share of graduates, the average annual number of graduates (no. graduates), the average math requirements (math req.), the average German requirements (German req.), and the expected annual earnings for a male graduate from that apprenticeship at age 30 in Zurich in CHF (expected earnings). See Appendix Section B.3 for details on how these apprenticeship characteristics are constructed.

**Table A.4: Choice experiment occupations**

Occupation (DE)	Occupation (EN)	Female share (%)	No. graduates	Math req.	German req.	Expected earnings (CHF)	Care	STEM
Dentalassistent/in EFZ	Dental assistant	98.9	740	22	58	88,835	Yes	No
Detailhandelsfachmann/-frau EFZ	Retail specialist	59.7	3,018	33	61	85,797	No	No
Informatiker/in EFZ	Information technologist	7.9	1,571	59	56	108,131	No	Yes
Fachmann/-frau Betreuung EFZ	Social care worker	84.5	2,506	27	74	85,309	Yes	No
Gärtner/in EFZ	Gardener	24.6	679	51	44	78,854	No	No
Konstrukteur/in EFZ	Design engineer	11.4	424	82	53	96,229	No	Yes
Koch/Köchin EFZ	Cook	37.8	1,012	25	43	75,218	No	No
Medizinische/r Praxisassistent/in EFZ	Medical secretary and assistant	99.1	837	37	71	94,784	Yes	No
Kaufmann/-frau EFZ	Commercial clerk	57.7	7,320	45	69	105,947	No	No
Logistiker/in EFZ	Logistics technician	10.3	1,391	23	32	80,528	No	No
Mediamatiker/in EFZ	Digital media technician	33.6	293	60	74	97,928	No	No
Schreiner/in EFZ	Carpenter	14.6	789	65	43	75,531	No	Yes
Zeichner/in EFZ	Draftsman	34.6	1,022	73	58	97,190	No	Yes

*Note:* This table displays the 13 occupations used in the choice experiment. For each occupation, the table also reports the average female share of graduates, the average annual number of graduates (no. graduates), the average math requirements (math req.), the average German requirements (German req.), the expected annual earnings for a male graduate from that apprenticeship at age 30 in Zurich in CHF (expected earnings), whether the occupation is in care, and whether the occupation is in STEM. See Appendix Section B.3 for details on how these apprenticeship characteristics are constructed.

**Table A.5: Balance table for the pooled sample**

Variable	C (W1) (1)	C (W2) (2)	T1 (3)	T2 (4)	T3 (5)	(3)-(1)	(4)-(1)	(5)-(2)
Female	0.487 (0.500)	0.440 (0.497)	0.490 (0.500)	0.495 (0.500)	0.449 (0.498)	0.004	0.008	0.010
Student age: 13-14	0.713 (0.452)	0.675 (0.469)	0.692 (0.462)	0.714 (0.452)	0.688 (0.464)	-0.022	0.000	0.011
Student age: 15-16	0.268 (0.443)	0.301 (0.459)	0.283 (0.451)	0.270 (0.444)	0.273 (0.446)	0.015	0.002	-0.026
8th grade	0.765 (0.424)	0.656 (0.475)	0.745 (0.436)	0.776 (0.417)	0.654 (0.476)	-0.020	0.012	-0.003
9th grade	0.161 (0.367)	0.233 (0.423)	0.172 (0.378)	0.167 (0.373)	0.246 (0.431)	0.012	0.007	0.014
Low math track	0.216 (0.411)	0.184 (0.388)	0.230 (0.421)	0.228 (0.420)	0.179 (0.384)	0.013	0.013	-0.001
High math track	0.256 (0.437)	0.340 (0.474)	0.231 (0.421)	0.237 (0.426)	0.341 (0.474)	-0.025	-0.020	-0.004
Low German track	0.216 (0.411)	0.176 (0.381)	0.217 (0.412)	0.221 (0.415)	0.168 (0.374)	0.000	0.006	-0.005
High German track	0.285 (0.452)	0.377 (0.485)	0.279 (0.449)	0.278 (0.448)	0.395 (0.489)	-0.005	-0.008	0.012
Math grade: 4,0 or less	0.196 (0.397)	0.136 (0.343)	0.193 (0.395)	0.167 (0.373)	0.130 (0.337)	-0.002	-0.028*	-0.005
Math grade: 4,5	0.297 (0.457)	0.306 (0.461)	0.306 (0.461)	0.324 (0.468)	0.296 (0.457)	0.009	0.028	-0.006
Math grade: 5,0	0.297 (0.457)	0.300 (0.458)	0.278 (0.448)	0.282 (0.450)	0.302 (0.459)	-0.020	-0.016	-0.001
German grade: 4,0 or less	0.098 (0.297)	0.076 (0.265)	0.107 (0.310)	0.102 (0.302)	0.088 (0.284)	0.009	0.004	0.013
German grade: 4,5	0.309 (0.462)	0.300 (0.458)	0.302 (0.459)	0.331 (0.471)	0.305 (0.461)	-0.007	0.022	0.007
German grade: 5,0	0.401 (0.490)	0.401 (0.490)	0.390 (0.488)	0.387 (0.487)	0.377 (0.485)	-0.010	-0.014	-0.024
Northwestern Switzerland	0.089 (0.284)	0.158 (0.365)	0.085 (0.279)	0.099 (0.298)	0.144 (0.351)	-0.004	0.010	-0.014
Zurich	0.234 (0.423)	0.353 (0.478)	0.236 (0.425)	0.227 (0.419)	0.372 (0.483)	0.004	-0.007	0.017
Eastern Switzerland	0.336 (0.473)	0.207 (0.405)	0.329 (0.470)	0.316 (0.465)	0.209 (0.407)	-0.008	-0.021	0.002
Central Switzerland	0.115 (0.320)	0.077 (0.267)	0.117 (0.321)	0.119 (0.324)	0.084 (0.277)	0.001	0.004	0.006
Recruited February 2024	0.742 (0.438)	0.000 (0.000)	0.747 (0.435)	0.736 (0.441)	0.000 (0.000)	0.005	-0.006	0.000
Recruited March to April 2024	0.258 (0.438)	0.000 (0.000)	0.253 (0.435)	0.264 (0.441)	0.000 (0.000)	-0.005	0.006	0.000
Recruited November to December 2024	0.000 (0.000)	0.436 (0.496)	0.000 (0.000)	0.000 (0.000)	0.445 (0.497)	0.000	0.000	0.009
Recruited January 2025	0.000 (0.000)	0.352 (0.478)	0.000 (0.000)	0.000 (0.000)	0.358 (0.480)	0.000	0.000	0.007
Previous TAs	2.991 (1.653)	2.935 (1.717)	2.916 (1.598)	3.014 (1.676)	2.951 (1.732)	-0.075	0.023	0.018
At least 1 previous TA	0.913 (0.282)	0.879 (0.326)	0.923 (0.266)	0.903 (0.295)	0.894 (0.308)	0.011	-0.009	0.016
At least 3 previous TAs	0.599 (0.490)	0.595 (0.491)	0.576 (0.494)	0.603 (0.490)	0.569 (0.495)	-0.023	0.004	-0.026
Recruited through schools	0.420 (0.494)	0.000 (0.000)	0.431 (0.496)	0.424 (0.494)	0.000 (0.000)	0.010	0.004	0.000
GC top-ranked BL occ	0.520 (0.500)		0.541 (0.499)	0.515 (0.500)		0.021	-0.004	
Own-gender share of top-ranked BL occ	0.711 (0.259)		0.714 (0.259)	0.701 (0.269)		-0.005	-0.007	
Average own-gender share of preferred BL occs	0.700 (0.196)		0.702 (0.203)	0.697 (0.208)		-0.003	-0.002	
Attention check correct		0.907 (0.291)			0.906 (0.292)			-0.002
Number of observations	1,308	1,381	941	974	1,351			

*Note:* This table displays baseline characteristics for the field experiment sample, separately by control and treatment group. Column (1) shows means for the control group (C) in the first wave (W1), while Column (2) shows means for C in the second wave (W2). Columns (3) to (5) display means for the three treatment groups: T1 (parents), T2 (same-gender parent), and T3 (opposite-gender parent). The final columns report the difference between each treatment and control group, estimated from separate regressions of each variable on the corresponding treatment dummy with strata fixed effects. Previous TAs refers to the number of previous trial apprenticeships. GC top-ranked BL occ refers to gender-congruence of the top-ranked occupation at baseline. Average own-gender share of preferred BL occs refers to the average own-gender share of preferred occupations at baseline. Binary and categorical variables are reported as shares, and continuous variables as means. Standard deviations are reported in parentheses. Omitted categories are: (a) for age group: 17-18 years; (b) for school grade: other; (c) for math and German track: intermediate, mixed, or other; (d) for math and German grade: 5,5 or 6,0; (e) for region: Lake Geneva and Espace Mittelland; (f) for recruitment month: February to April 2025. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Table A.6: Balance table for male students**

Variable	C (W1) (1)	C (W2) (2)	T1 (3)	T2 (4)	T3 (5)	(3)-(1)	(4)-(1)	(5)-(2)
Student age: 13-14	0.718 (0.450)	0.673 (0.469)	0.694 (0.461)	0.715 (0.452)	0.684 (0.465)	-0.025	-0.003	0.011
Student age: 15-16	0.265 (0.442)	0.301 (0.459)	0.279 (0.449)	0.268 (0.444)	0.276 (0.447)	0.015	0.003	-0.025
8th grade	0.776 (0.417)	0.667 (0.472)	0.744 (0.437)	0.785 (0.412)	0.660 (0.474)	-0.033	0.008	-0.007
9th grade	0.148 (0.355)	0.216 (0.412)	0.177 (0.382)	0.157 (0.364)	0.246 (0.431)	0.030	0.009	0.030
Low math track	0.237 (0.426)	0.181 (0.385)	0.233 (0.423)	0.244 (0.430)	0.207 (0.405)	-0.006	0.007	0.026
High math track	0.259 (0.439)	0.335 (0.472)	0.217 (0.412)	0.250 (0.433)	0.340 (0.474)	-0.041	-0.009	0.005
Low German track	0.249 (0.433)	0.176 (0.381)	0.235 (0.425)	0.258 (0.438)	0.195 (0.396)	-0.016	0.009	0.019
High German track	0.277 (0.448)	0.363 (0.481)	0.258 (0.438)	0.276 (0.448)	0.376 (0.485)	-0.017	-0.000	0.013
Math grade: 4,0 or less	0.182 (0.386)	0.129 (0.336)	0.171 (0.377)	0.171 (0.377)	0.113 (0.317)	-0.009	-0.011	-0.016
Math grade: 4,5	0.306 (0.461)	0.292 (0.455)	0.290 (0.454)	0.335 (0.473)	0.297 (0.457)	-0.016	0.030	0.005
Math grade: 5,0	0.294 (0.456)	0.302 (0.460)	0.310 (0.463)	0.285 (0.452)	0.313 (0.464)	0.015	-0.010	0.011
German grade: 4,0 or less	0.130 (0.336)	0.098 (0.298)	0.140 (0.347)	0.148 (0.356)	0.113 (0.317)	0.008	0.018	0.015
German grade: 4,5	0.358 (0.480)	0.320 (0.467)	0.375 (0.485)	0.380 (0.486)	0.345 (0.476)	0.017	0.022	0.025
German grade: 5,0	0.368 (0.483)	0.403 (0.491)	0.350 (0.477)	0.337 (0.473)	0.368 (0.483)	-0.017	-0.030	-0.035
Northwestern Switzerland	0.089 (0.286)	0.161 (0.368)	0.087 (0.283)	0.116 (0.320)	0.147 (0.354)	-0.002	0.026	-0.015
Zurich	0.261 (0.439)	0.358 (0.480)	0.233 (0.423)	0.244 (0.430)	0.391 (0.488)	-0.025	-0.016	0.034
Eastern Switzerland	0.295 (0.456)	0.204 (0.403)	0.333 (0.472)	0.291 (0.455)	0.196 (0.397)	0.036	-0.005	-0.008
Central Switzerland	0.122 (0.328)	0.078 (0.268)	0.119 (0.324)	0.100 (0.300)	0.075 (0.264)	-0.005	-0.023	-0.002
Recruited February 2024	0.726 (0.446)	0.000 (0.000)	0.742 (0.438)	0.732 (0.444)	0.000 (0.000)	0.016	0.006	0.000
Recruited March to April 2024	0.274 (0.446)	0.000 (0.000)	0.258 (0.438)	0.268 (0.444)	0.000 (0.000)	-0.016	-0.006	0.000
Recruited November to December 2024	0.000 (0.000)	0.415 (0.493)	0.000 (0.000)	0.000 (0.000)	0.427 (0.495)	0.000	0.000	0.012
Recruited January 2025	0.000 (0.000)	0.372 (0.484)	0.000 (0.000)	0.000 (0.000)	0.378 (0.485)	0.000	0.000	0.006
Previous TAs	2.890 (1.637)	2.891 (1.716)	2.908 (1.560)	2.888 (1.696)	2.895 (1.715)	0.019	-0.002	0.002
At least 1 previous TA	0.915 (0.279)	0.873 (0.333)	0.929 (0.257)	0.890 (0.313)	0.895 (0.307)	0.014	-0.025	0.022
At least 3 previous TAs	0.566 (0.496)	0.585 (0.493)	0.571 (0.495)	0.575 (0.495)	0.552 (0.498)	0.004	0.009	-0.033
Recruited through schools	0.376 (0.485)	0.000 (0.000)	0.404 (0.491)	0.392 (0.489)	0.000 (0.000)	0.026	0.016	0.000
GC top-ranked BL occ	0.547 (0.498)		0.588 (0.493)	0.555 (0.497)		0.041	0.008	
Own-gender share of top-ranked BL occ	0.734 (0.259)		0.751 (0.247)	0.735 (0.263)		0.000	-0.001	
Average own-gender share of preferred BL occs	0.725 (0.191)		0.741 (0.193)	0.729 (0.203)		0.006	0.002	
Attention check correct		0.886 (0.318)			0.890 (0.313)			0.003
Number of observations	671	774	480	492	744			

Note: This table displays baseline characteristics for the field experiment sample, separately by control and treatment group, restricted to boys only. Column (1) shows means for the control group (C) in the first wave (W1), while Column (2) shows means for C in the second wave (W2). Columns (3) to (5) display means for the three treatment groups: T1 (parents), T2 (same-gender parent), and T3 (opposite-gender parent). The final columns report the difference between each treatment and control group, estimated from separate regressions of each variable on the corresponding treatment dummy with strata fixed effects. Previous TAs refers to the number of previous trial apprenticeships. GC top-ranked BL occ refers to gender-congruence of the top-ranked occupation at baseline. Average own-gender share of preferred BL occs refers to the average own-gender share of preferred occupations at baseline. Binary and categorical variables are reported as shares, and continuous variables as means. Standard deviations are reported in parentheses. Omitted categories are: (a) for age group: 17-18 years; (b) for school grade: other; (c) for math and German track: intermediate, mixed, or other; (d) for math and German grade: 5,5 or 6,0; (e) for region: Lake Geneva and Espace Mittelland; (f) for recruitment month: February to April 2025. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

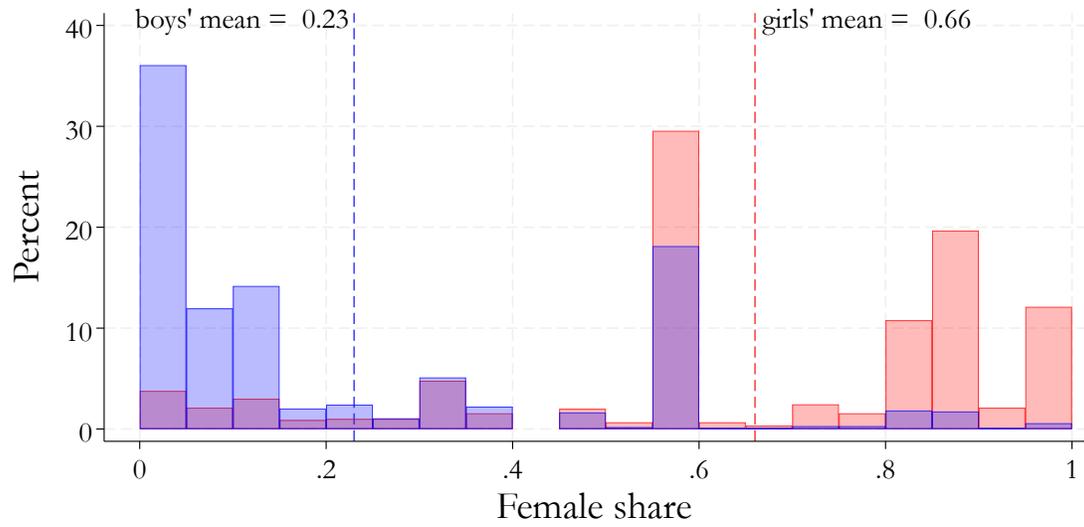
**Table A.7: Balance table for female students**

Variable	C (W1) (1)	C (W2) (2)	T1 (3)	T2 (4)	T3 (5)	(3)-(1)	(4)-(1)	(5)-(2)
Student age: 13-14	0.708 (0.455)	0.677 (0.468)	0.690 (0.463)	0.712 (0.453)	0.692 (0.462)	-0.018	0.004	0.011
Student age: 15-16	0.272 (0.445)	0.300 (0.459)	0.286 (0.453)	0.272 (0.445)	0.270 (0.444)	0.015	0.000	-0.027
8th grade	0.752 (0.432)	0.643 (0.480)	0.746 (0.436)	0.768 (0.423)	0.647 (0.478)	-0.006	0.016	0.002
9th grade	0.174 (0.380)	0.255 (0.436)	0.167 (0.373)	0.178 (0.383)	0.247 (0.432)	-0.007	0.004	-0.006
Low math track	0.193 (0.395)	0.188 (0.391)	0.226 (0.418)	0.212 (0.409)	0.145 (0.352)	0.032	0.020	-0.035**
High math track	0.253 (0.435)	0.346 (0.476)	0.245 (0.431)	0.224 (0.417)	0.343 (0.475)	-0.008	-0.031	-0.015
Low German track	0.181 (0.385)	0.176 (0.381)	0.197 (0.398)	0.183 (0.387)	0.135 (0.342)	0.017	0.003	-0.035*
High German track	0.294 (0.456)	0.395 (0.489)	0.302 (0.459)	0.280 (0.450)	0.418 (0.494)	0.008	-0.016	0.012
Math grade: 4,0 or less	0.210 (0.408)	0.145 (0.352)	0.217 (0.413)	0.164 (0.371)	0.152 (0.359)	0.006	-0.045*	0.010
Math grade: 4,5	0.289 (0.454)	0.323 (0.468)	0.323 (0.468)	0.313 (0.464)	0.295 (0.456)	0.034	0.025	-0.021
Math grade: 5,0	0.301 (0.459)	0.297 (0.457)	0.245 (0.431)	0.280 (0.450)	0.288 (0.453)	-0.056**	-0.022	-0.015
German grade: 4,0 or less	0.064 (0.246)	0.048 (0.213)	0.074 (0.262)	0.054 (0.226)	0.058 (0.233)	0.009	-0.010	0.010
German grade: 4,5	0.257 (0.438)	0.273 (0.446)	0.226 (0.418)	0.280 (0.450)	0.255 (0.436)	-0.032	0.022	-0.016
German grade: 5,0	0.435 (0.496)	0.399 (0.490)	0.432 (0.496)	0.438 (0.497)	0.387 (0.488)	-0.003	0.003	-0.011
Northwestern Switzerland	0.088 (0.283)	0.153 (0.360)	0.082 (0.275)	0.081 (0.273)	0.140 (0.347)	-0.005	-0.007	-0.012
Zurich	0.206 (0.404)	0.346 (0.476)	0.239 (0.427)	0.210 (0.407)	0.348 (0.477)	0.033	0.003	-0.004
Eastern Switzerland	0.380 (0.486)	0.211 (0.408)	0.325 (0.469)	0.342 (0.475)	0.226 (0.418)	-0.055*	-0.037	0.015
Central Switzerland	0.108 (0.311)	0.077 (0.267)	0.115 (0.319)	0.139 (0.346)	0.094 (0.292)	0.007	0.031	0.017
Recruited February 2024	0.760 (0.428)	0.000 (0.000)	0.753 (0.432)	0.741 (0.439)	0.000 (0.000)	-0.007	-0.019	0.000
Recruited March to April 2024	0.240 (0.428)	0.000 (0.000)	0.247 (0.432)	0.259 (0.439)	0.000 (0.000)	0.007	0.019	0.000
Recruited November to December 2024	0.000 (0.000)	0.463 (0.499)	0.000 (0.000)	0.000 (0.000)	0.466 (0.499)	0.000	0.000	0.005
Recruited January 2025	0.000 (0.000)	0.326 (0.469)	0.000 (0.000)	0.000 (0.000)	0.334 (0.472)	0.000	0.000	0.007
Previous TAs	3.097 (1.664)	2.990 (1.719)	2.924 (1.638)	3.143 (1.646)	3.020 (1.751)	-0.173*	0.048	0.039
At least 1 previous TA	0.911 (0.286)	0.886 (0.318)	0.918 (0.275)	0.917 (0.276)	0.893 (0.309)	0.007	0.007	0.008
At least 3 previous TAs	0.633 (0.482)	0.608 (0.489)	0.581 (0.494)	0.631 (0.483)	0.590 (0.492)	-0.051*	-0.001	-0.016
Recruited through schools	0.466 (0.499)	0.000 (0.000)	0.460 (0.499)	0.456 (0.499)	0.000 (0.000)	-0.007	-0.008	0.000
GC top-ranked BL occ	0.491 (0.500)		0.492 (0.500)	0.475 (0.500)		0.001	-0.016	
Own-gender share of top-ranked BL occ	0.686 (0.256)		0.677 (0.265)	0.665 (0.271)		-0.011	-0.013	
Average own-gender share of preferred BL occs	0.673 (0.197)		0.661 (0.205)	0.664 (0.208)		-0.012	-0.005	
Attention check correct		0.932 (0.251)			0.926 (0.262)			-0.008
Number of observations	637	607	461	482	607			

Note: This table displays baseline characteristics for the field experiment sample, separately by control and treatment group, restricted to girls only. Column (1) shows means for the control group (C) in the first wave (W1), while Column (2) shows means for C in the second wave (W2). Columns (3) to (5) display means for the three treatment groups: T1 (parents), T2 (same-gender parent), and T3 (opposite-gender parent). The final columns report the difference between each treatment and control group, estimated from separate regressions of each variable on the corresponding treatment dummy with strata fixed effects. Previous TAs refers to the number of previous trial apprenticeships. GC top-ranked BL occ refers to gender-congruence of the top-ranked occupation at baseline. Average own-gender share of preferred BL occs refers to the average own-gender share of preferred occupations at baseline. Binary and categorical variables are reported as shares, and continuous variables as means. Standard deviations are reported in parentheses. Omitted categories are: (a) for age group: 17-18 years; (b) for school grade: other; (c) for math and German track: intermediate, mixed, or other; (d) for math and German grade: 5,5 or 6,0; (e) for region: Lake Geneva and Espace Mittelland; (f) for recruitment month: February to April 2025. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

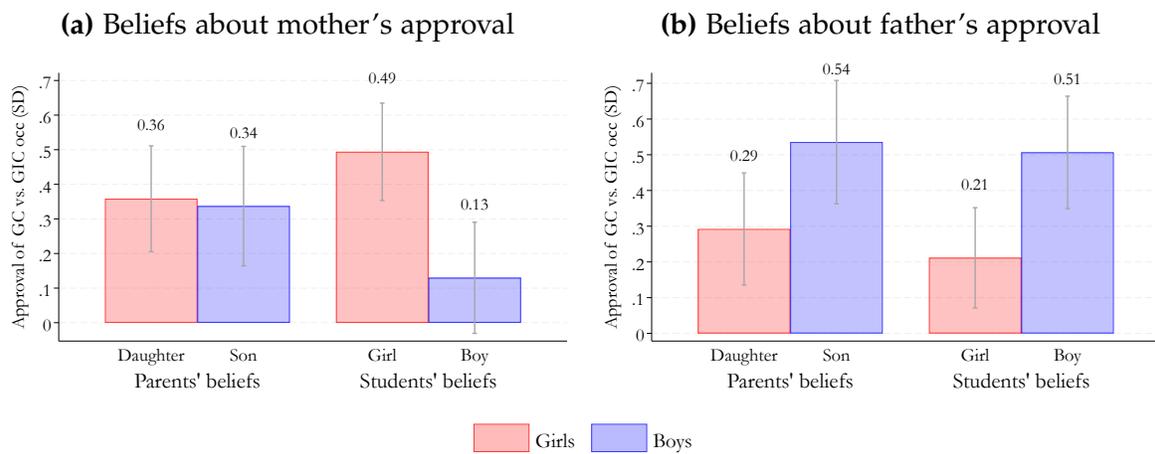
## A.2 Figures

**Figure A.1: Contract occupation**



*Note:* The figure shows the distribution of the female share in students' contract occupation by gender. This analysis is based on 1,937 students, recruited in the same data collection as our field experiment sample students, who have already obtained an apprenticeship contract. Vertical lines indicate means for girls (red) and boys (blue).

**Figure A.2:** Beliefs about parental approval for the sample of matched parent-student responses



*Note:* Graphs (a) and (b) show differences in beliefs about mothers' and fathers' approval of the child doing an apprenticeship in a gender-congruent versus a gender-incongruent occupation, as reported by parents about their own child and by students about their own mothers and fathers. The bars show coefficients from separate regressions of beliefs about parental approval on an indicator for a gender-congruent occupation; all regressions include respondent fixed effects, exploiting within-respondent comparisons across one gender-congruent and one gender-incongruent occupation. The sample includes parents and students from the parent-student school sample, restricted to matched student-parent responses. Beliefs about parental approval are standardized to have a mean of zero and a standard deviation of one. Vertical gray bars denote 95% confidence intervals.

## Figure A.3: Presentation of hypothetical student profiles

### (a) Explanation of task

Stellen Sie sich vor, dass die folgenden 4 Schülerinnen und Schüler **die 2. Klasse der Oberstufe in der Schule Ihrer Tochter im gleichen Schultyp** besuchen:



Sie haben alle **fleissig** im Mathe- und Deutschunterricht **gearbeitet**, sind aber **unterschiedlich begabt** und haben deshalb auch **unterschiedliche Noten**.

Die Schülerinnen und Schüler überlegen sich gerade, **welche Lehre** sie nach der 3. Klasse der Oberstufe machen möchten.

Auf den folgenden Seiten werden wir Ihnen mehr Informationen über diese Schülerinnen und Schüler geben. Wir bitten Sie, die **Berufe auszuwählen**, die Ihrer Meinung nach **am besten zu jedem von ihnen passen**.

### (b) Student profile

**David**

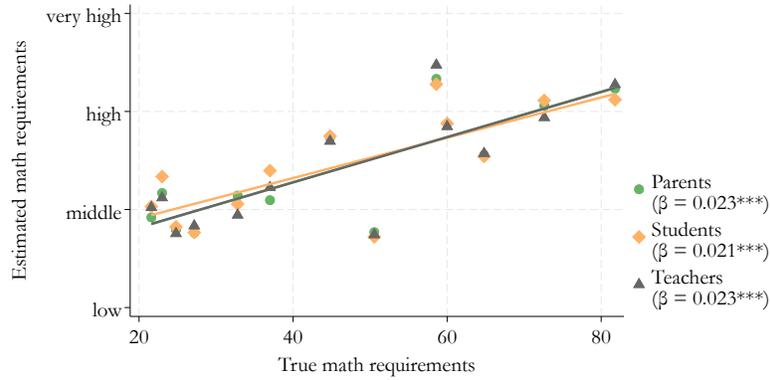


Noten: **Mathe 5,5 - Deutsch 5,0**  
Er mag: soziale Interaktion  
Er möchte: gutes zukünftiges Gehalt

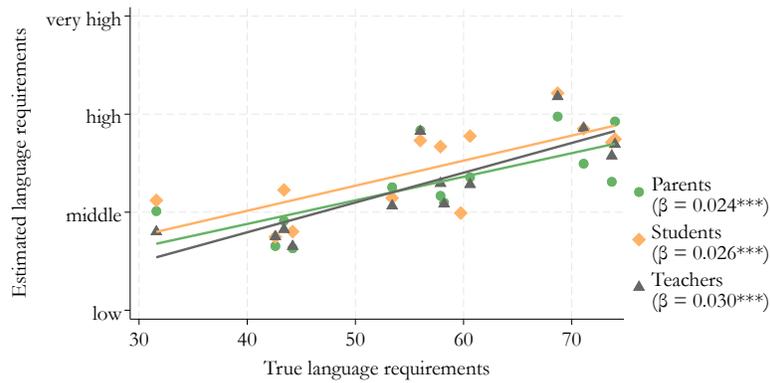
*Note:* Graph (a) depicts the explanation of the task of recommending occupations to hypothetical students in the choice experiment. Graph (b) depicts an example profile of a hypothetical student shown to respondents. See Appendix Section B.7.4 for the English translation. These are screenshots taken from the choice experiment among parents.

**Figure A.4: Knowledge of occupational characteristics**

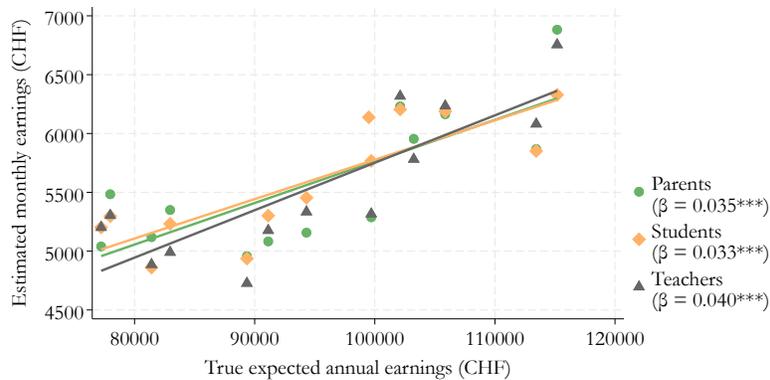
**(a) Knowledge of math requirements**



**(b) Knowledge of language requirements**



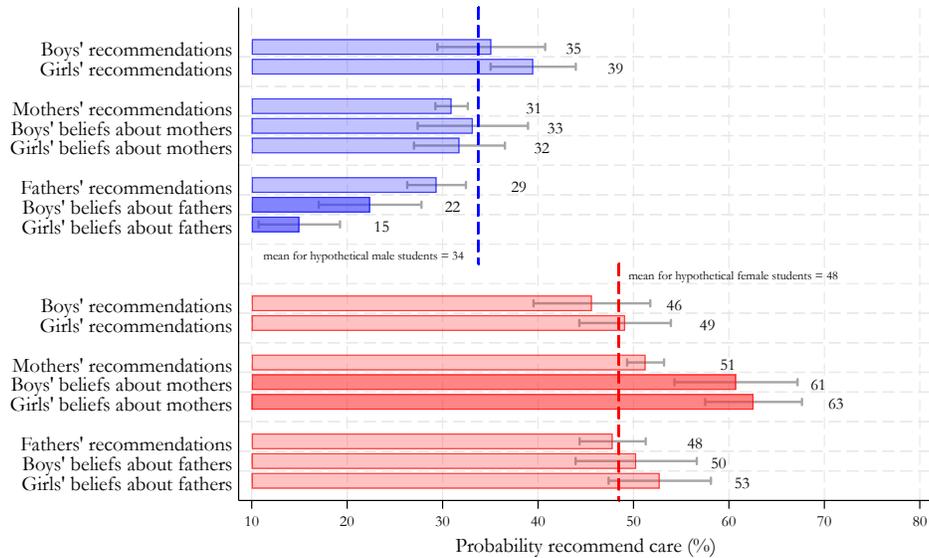
**(c) Knowledge of expected earnings**



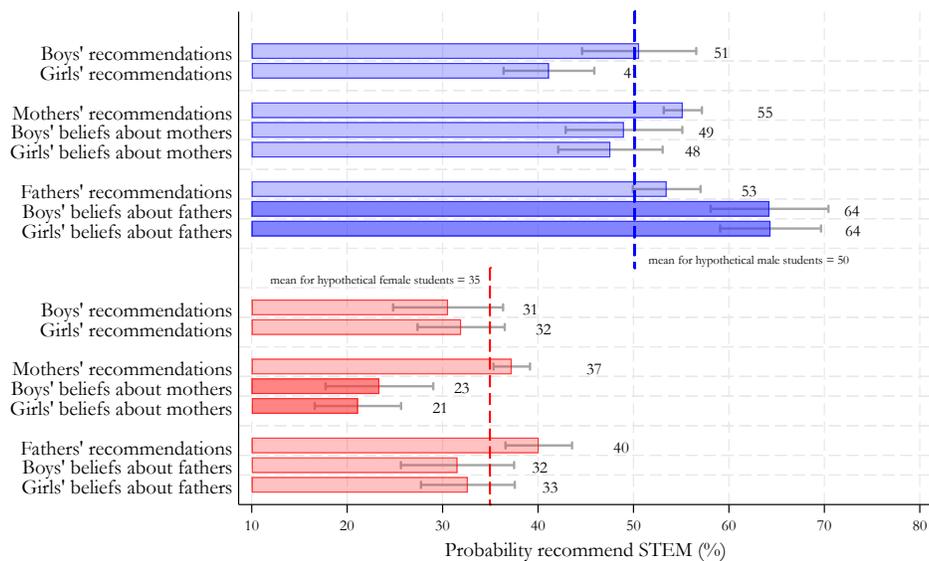
*Note:* This figure plots respondents' beliefs against true values for the occupations included in the choice experiment. Graph (a) shows estimated (4-point likert scale) versus true math requirements (scale 0–100) across occupations. Graph (b) shows estimated (4-point likert scale) versus true language requirements (scale 0–100) across occupations. Graph (c) shows estimated monthly versus true expected annual earnings across occupations. The sample includes all parents, students, and teachers from our choice experiment sample, excluding endline (EL) students. Each point represents an occupation, and separate fitted lines are shown for parents, students, and teachers. The reported slope coefficients ( $\beta$ ) correspond to the estimated relationship between the true and perceived values for each group. Robust standard errors are used. The construction of the true math and language requirements and expected earnings measures is described in Appendix Section B.3.

**Figure A.5: Recommendations of students, parents, and students' beliefs about parents' recommendations**

**(a) Recommending an occupation in care**



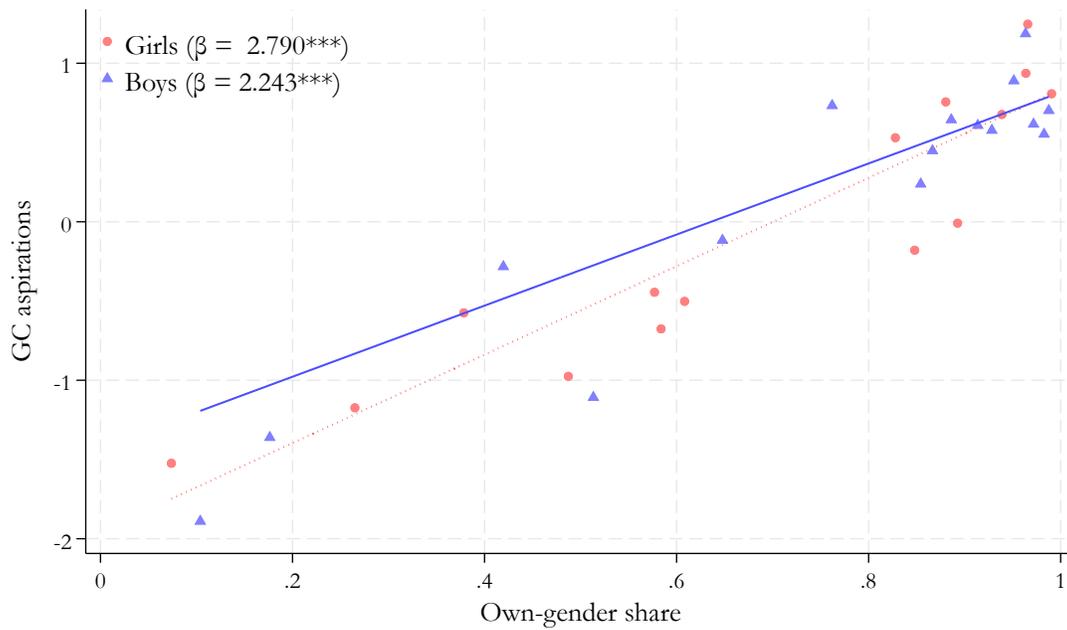
**(b) Recommending an occupation in STEM**



Recommendations to hypothetical: ■ Male student ■ Female student

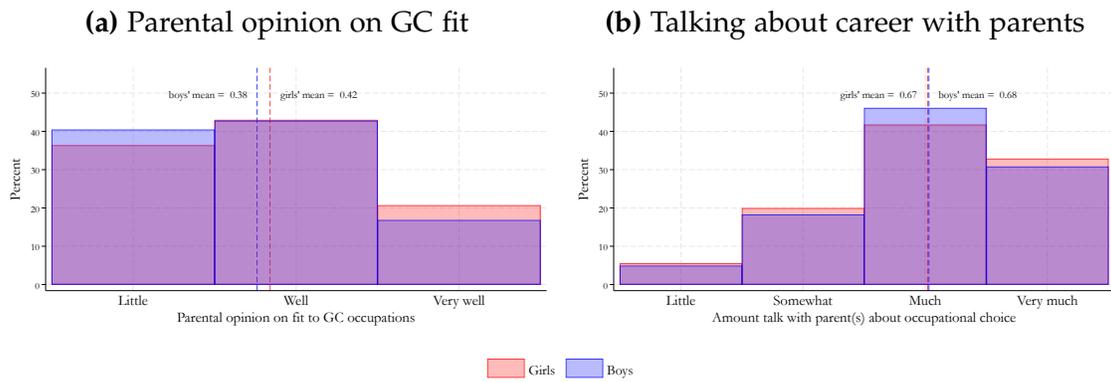
*Note:* Graph (a) shows the predicted probability of recommending at least one care occupation to hypothetical male and female students by type of recommender or belief. Graph (b) shows the predicted probability of recommending at least one STEM occupation. The sample includes all parents and EL students from the choice experiment sample. The predictions are described for Equation 2. Robust standard errors are used. Horizontal gray bars denote 95% confidence intervals. Vertical lines denote the means of students' and parents' recommendations to hypothetical male (blue) and female (red) students.

**Figure A.6:** Correlation between GC aspirations and own-gender share in contract occupation



*Note:* The sample includes only the field experiment sample students from  $W_1$  who answered the EL survey and reported having an apprenticeship contract. Contract occupations are merged with the apprenticeship characteristics data, which include the female share. Using this information, we compute the own-gender share within each contract occupation. The construction of gender-congruent (GC) aspirations follows the specification described in the note of Figure 4. GC aspirations is strongly positively correlated with the own-gender share. We estimate regressions with robust standard errors to compute the  $\beta$  coefficients separately for girls and boys. \*\*\* denotes significance at the 1% level.

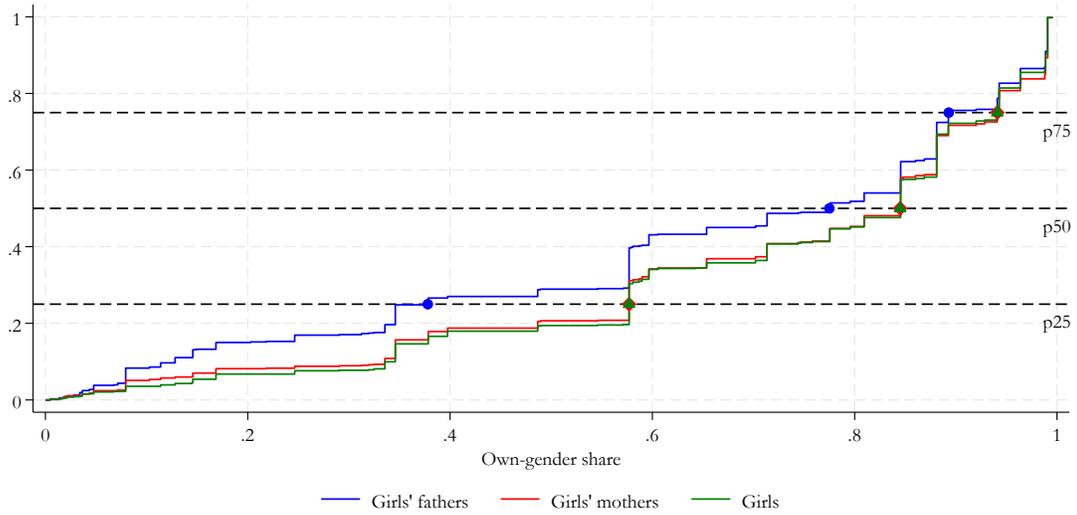
**Figure A.7: Descriptives on treatment questions**



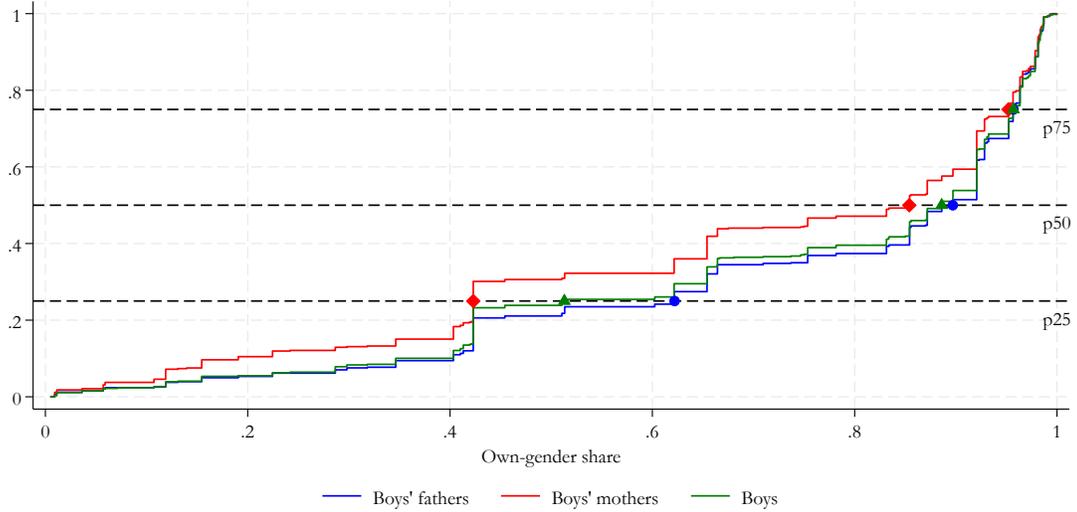
*Note:* Graph (a) shows the distribution of students' beliefs about the opinion of their parents, same-gender parent, or opposite-gender parent regarding the student's fit to the two gender-congruent (GC) occupations mentioned in the treatment. Graph (b) shows the distribution of students' answers about how much they talk with their parents, same-gender parent, or opposite-gender parent about their career choice. The sample consists of treated students from the field experiment sample. Vertical lines denote the mean for girls (red) and boys (blue), rescaled between 0 and 1. The difference between boys and girls in graph (a) is significant at the 1% level. The difference between boys and girls in graph (b) is not statistically significant.

**Figure A.8: CDFs of own-gender share in students and parents' two most preferred occupations**

**(a) Girls and their parents**



**(b) Boys and their parents**



*Note:* Graph (a) shows the cumulative distribution function (CDF) of the own-gender share in the top- and second-ranked occupations of girls, their mothers, and their fathers. Graph (b) shows the same for boys, their mothers, and their fathers. The sample consists of students from the parent-student school sample. Horizontal lines denote 25th (p25), 50th (p50), and 75th (p75) percentiles. Kolmogorov-Smirnov and Epps-Singleton tests indicate that the differences between boys' mothers and fathers, between boys' mothers and boys, between girls' fathers and mothers, and between girls' fathers and girls are statistically significant at the 5% level or lower. All other differences are not statistically significant.

## B Data Appendix

This data appendix provides additional information on the data used in the analysis. It describes the main outcome variables, details the apprenticeship characteristics data, describes the sample restrictions for the field experiment sample, and provides an overview of the surveys. This appendix is intended to complement the main text by documenting data sources and variable definitions more fully.

### B.1 Main Outcome Variables

**Table B.1:** Main outcome variables

Variable	Description	Survey	Coding
GC aspirations	Index combining the own-gender share of the chosen TA lottery occupation, and the average points allocated to GC occupations among the hypothetical offers. See Appendix Section B.7.7 for details of the TA lottery and hypothetical offers questions in the surveys. See Appendix Section B.3 for details of how the female share of apprenticeships is constructed.	Field experiment sample students W1 and field experiment sample students W2	Standardized index using GLS weighting, normalized by the control group (separately for W1 and W2)
GC beliefs	Index combining beliefs about skills fit, enjoyment of tasks, and fit with colleagues in GC occupations. For each beliefs question, beliefs about GC occupations are defined as the average of responses to the two GC occupations. All beliefs questions are answered on a 5-point likert scale with higher values indicating more favorable beliefs.	Field experiment sample students W1 and field experiment sample students W2	Standardized index using GLS weighting, normalized by the control group (separately for W1 and W2)

### B.2 Control Variables

This section specifies the control variables contained in  $X_i$  in Equation 3. For each group of indicators, we omit one category to avoid multicollinearity.

**Age.** Age is a categorical variable with three categories: (i) 13–14 years old; (ii) 15–16 years old; (iii) 17–18 years old.

**Grade.** School grade is a categorical variable with three categories: (i) 8<sup>th</sup> grade; (ii) 9<sup>th</sup> grade; (iii) other.

**Math track.** School track for math is a categorical variable with three categories: (i) low; (ii) middle, mixed, or other; (iii) high or intermediate.

**German track.** School track for German is a categorical variable with three categories: (i) low; (ii) middle, mixed, or other; (iii) high or intermediate.

**Math grade.** Math grade is a categorical variable with four categories: (i) 4,0 or less; (ii) 4,5; (iii) 5,0; (iv) 5,5 or 6,0.

**German grade.** German grade is a categorical variable with four categories: (i) 4,0 or less; (ii) 4,5; (iii) 5,0; (iv) 5,5 or 6,0.

**Prior TA experience.** Prior TA experience is a categorical variable with six categories indicating the number of previous TAs or firm information events: (i) 0; (ii) 1; (iii) 2; (iv) 3; (v) 4; (vi) 5 or more.

**Region.** Region is a categorical variable with five categories: (i) Lake Geneva or Espace Mittelland; (ii) Northwestern Switzerland; (iii) Zurich; (iv) Eastern Switzerland; (v) Central Switzerland.

**Recruitment month.** Recruitment month is defined separately for each survey wave. For  $W_1$ , recruitment month is a binary indicator for whether the student completed the survey in March to April 2024. For  $W_2$ , recruitment month is a categorical variable with three categories indicating when the student completed the survey: (i) November to December 2024; (ii) January 2025; (iii) February to April 2025.

**Recruitment channel.** Recruitment channel is a binary indicator for whether the student was recruited through schools. If they were not recruited through schools, they were recruited through the newsletter. We only include this variable for  $W_1$ , as all  $W_2$  students were recruited through the newsletter.

**Own-gender share of top-ranked BL occupation.** Own-gender share of top-ranked BL occupation is the own-gender share of the occupation the student indicated as their most preferred occupation at baseline. We only include this variable for  $W_1$ , as  $W_2$  students were not asked their occupational preferences prior to treatment.

**Average own-gender share of preferred BL occupations.** Average own-gender share of preferred BL occupations is the average own-gender share of all occupations the student indicated that they most prefer at baseline. We only include this variable for  $W_1$ , as  $W_2$  students were not asked their occupational preferences prior to treatment.

## B.3 Apprenticeship Characteristics Data

**Table B.2:** Construction of the apprenticeship characteristics

Variable	Construction
Female share	Calculated from the LABB data (Längsschnittanalysen im Bildungsbereich, Swiss Federal Statistical Office). The sample is restricted to apprentices from German-speaking regions who graduated from an apprenticeship between 2019 and 2021. The variable is defined as the average proportion of women among graduates within each apprenticeship.
Number of graduates	Constructed from the same LABB data for individuals completing an apprenticeship between 2019 and 2021. Defined as the average yearly number of graduates per apprenticeship over this period. All individuals who end an apprenticeship are counted as graduates, regardless of final exam outcome. Individuals who terminate their contract prematurely are excluded.
ISCED field	Categorical variable indicating the ISCED field of education associated with each apprenticeship. The classification is taken from the official mapping file "Liste der Berufscodes für SBG" published by the Swiss Federal Statistical Office (BFS), which assigns ISCED-2, ISCED-3, and ISCED-4 codes to each apprenticeship. The variable is merged to the data using the LABB apprenticeship code.
Math requirements	Mean mathematics requirements across all specializations within each apprenticeship. Skill data come from the Anforderungsprofile.ch dataset, which provides school-related skill requirements for each apprenticeship specialization based on expert evaluations. These data are merged to LABB apprenticeship codes using the official BFS mapping file, which links LABB codes to the codes in the skill data. For each LABB code, math requirements reported at the specialization level are averaged to produce a single value per apprenticeship.
German requirements	Mean German requirements across all specializations within each apprenticeship. Skill data come from the Anforderungsprofile.ch dataset, which provides school-related skill requirements for each apprenticeship specialization based on expert evaluations. These data are merged to LABB apprenticeship codes using the official BFS mapping file, which links LABB codes to the codes in the skill data. For each LABB code, German requirements reported at the specialization level are averaged to produce a single value per apprenticeship.
Expected earnings	Predicted annual gross full-time equivalent (FTE) income for a reference worker (male, 30 years old, no children, not married, urban residence, working in Zurich, no higher education, employee without supervisory function) who completed the apprenticeship. Estimated from Swiss Labor Force Survey (SAKE) and Social Protection and Labor Market (SESAM) individual-level data (2015–2019) using a weighted regression with apprenticeship fixed effects and demographic controls.

## B.4 Sample Restrictions for the Field Experiment Sample

This section describes the steps used to restrict the field experiment sample. We apply a series of exclusion criteria to ensure data quality and consistency across treatment groups.

### B.4.1 Step-by-Step Sample Restrictions

1. **Remove duplicate responses.** We identify duplicates based on phone number, email address, or platform user ID. When multiple responses are linked to the same identifier, we retain only the first response that completed all pre-randomization questions.
2. **Exclude pilot responses.** All observations collected during the pilot phase are dropped from the analysis.
3. **Exclude non-randomized responses.** We remove all individuals who were not randomly assigned to treatment or control. We do not randomize those planning to attend Gymnasium the following year, those attending school in a town where another RCT among students was taking place, those who participated in the study of Brenøe and Wassermann (2026), and those who report living with neither parent.
4. **Restrict to individuals without a contract.** We keep only respondents who do not have a contract.
5. **Trim extreme durations.** We exclude observations in the bottom and top 2.5 percent of the distribution of duration between consent and randomization. The 2.5th and 97.5th percentile durations were 1.2 and 6.8 minutes, respectively, compared with a median duration of 2.4 minutes.
6. **Restrict to complete responses.** We keep only respondents with non-missing values for all control variables and at least one non-missing main outcome variable.
7. **Additional restrictions by treatment group.**
  - For **Treatment 2 (T2)** and the corresponding control group, we further drop respondents who do not live with their *same-gender* parent in the analysis.
  - For **Treatment 3 (T3)**, instead of dropping those who live with neither parent, we drop respondents who do not live with their *opposite-gender* parent.

## B.4.2 Sensitivity to Dropping the Duration Restriction

To assess robustness, Appendix Table B.3 presents heterogeneity results when we relax the duration restriction (i.e., retain observations regardless of the duration between consent and randomization). The results are similar to those reported in Table 1.

**Table B.3:** Heterogeneity results with no duration restrictions

	Gender		Grade		Math skills		
	All (1)	Boys (2)	Girls (3)	8th (4)	Higher (5)	Low (6)	High (7)
<b>Panel A: GC aspirations</b>							
T1: parents	-0.025 (0.031)	0.021 (0.043)	-0.074* (0.044)	-0.038 (0.035)	0.003 (0.064)	0.001 (0.043)	-0.051 (0.043)
T2: same-gender parent	0.064** (0.031)	0.086** (0.044)	0.029 (0.042)	0.080** (0.033)	-0.003 (0.077)	0.104** (0.046)	0.024 (0.042)
T3: opposite-gender parent	-0.023 (0.038)	0.030 (0.049)	-0.088 (0.060)	0.003 (0.048)	-0.080 (0.065)	-0.018 (0.061)	-0.025 (0.049)
Number of observations							
C + T1	2,258	1,168	1,090	1,701	557	1,111	1,147
C + T2	2,094	1,035	1,059	1,634	460	1,025	1,069
C + T3	2,805	1,573	1,232	1,831	974	1,091	1,714
Control mean							
1 <sup>st</sup> wave	0.000	0.086	-0.092	0.021	-0.070	0.067	-0.063
2 <sup>nd</sup> wave	0.000	0.090	-0.116	0.024	-0.045	-0.001	0.001
<b>Panel B: GC beliefs</b>							
T1: parents	-0.037 (0.039)	0.017 (0.054)	-0.097* (0.056)	-0.043 (0.044)	-0.067 (0.082)	-0.045 (0.059)	-0.034 (0.052)
T2: same-gender parent	-0.029 (0.042)	0.000 (0.060)	-0.052 (0.058)	-0.002 (0.047)	-0.120 (0.099)	0.019 (0.062)	-0.091 (0.058)
T3: opposite-gender parent	0.006 (0.038)	0.076 (0.048)	-0.078 (0.059)	0.062 (0.046)	-0.109* (0.064)	0.020 (0.061)	-0.010 (0.047)
Number of observations							
C + T1	2,304	1,195	1,109	1,738	566	1,127	1,177
C + T2	2,143	1,057	1,086	1,668	475	1,046	1,097
C + T3	2,871	1,606	1,265	1,880	991	1,122	1,749
Control mean							
1 <sup>st</sup> wave	0.000	-0.196	0.207	0.022	-0.071	-0.088	0.082
2 <sup>nd</sup> wave	-0.000	-0.169	0.218	0.005	-0.010	-0.108	0.071

*Note:* This table reports coefficients from separate regressions of GC aspirations and GC beliefs on each treatment dummy, estimated in different subsamples. This analysis is based on the field experiment sample without duration restrictions. Panels correspond to the two outcomes; columns indicate subsamples; rows report treatment coefficients. The number of observations reflects the control and treatment groups used in each comparison. Control group means for each subsample are shown by wave. Variable construction, controls, and weighting follow the specification described in the note of Figure 4. Robust standard errors are reported in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## B.5 Attrition

This section discusses attrition among field experiment sample students.

### B.5.1 Differential Attrition

Appendix Table B.4 presents results for differential attrition in answering either primary outcome. Attrition is statistically significantly higher for T<sub>1</sub> and T<sub>2</sub> boys. The treatment section of the W<sub>1</sub> survey was marginally longer than the control section of the survey, which may explain the differential attrition. Differential attrition for girls is not statistically significant. T<sub>3</sub> boys are marginally more likely to attrit.

**Table B.4:** Differential attrition by treatment status

	All (1)	Boys (2)	Girls (3)
T <sub>1</sub> : parents	0.020* (0.011)	0.033** (0.016)	0.005 (0.015)
T <sub>2</sub> : same-gender parent	0.033*** (0.012)	0.043*** (0.017)	0.024 (0.016)
T <sub>3</sub> : opposite-gender parent	0.020* (0.011)	0.024* (0.014)	0.014 (0.018)
Number of observations			
C + T <sub>1</sub>	2,313	1,198	1,115
C + T <sub>2</sub>	2,190	1,080	1,110
C + T <sub>3</sub>	2,999	1,646	1,353
Control mean			
1 <sup>st</sup> wave	0.065	0.065	0.066
2 <sup>nd</sup> wave	0.099	0.083	0.117

*Note:* This table reports coefficients from separate regressions of a dummy for non-response to either primary outcome on each treatment dummy, estimated in different subsamples. This analysis is based on the field experiment sample without imposing the non-missing main outcome variable restriction. Columns indicate subsamples; rows report treatment coefficients. Controls follow the specification described in the note of Figure 4. The number of observations reflects the control and treatment groups used in each comparison. Robust standard errors are reported in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

### **B.5.2 Inverse Probability Weighting**

To address differential attrition, we apply inverse probability weighting in the analysis presented in the main part of the paper.

To construct the weights, we estimate the probability that an observation is observed (i.e., does not attrit) for each outcome using a logistic regression. The dependent variable is an indicator for the outcome being observed, and the covariates include the control variables described in Appendix Section B.2, as well as the strata fixed effects for each wave. These models are estimated separately by treatment status, allowing that attrition probabilities differ between the control group and each treatment group.

Inverse probability weights are then constructed as the inverse of the predicted probability of being observed. These weights are applied in the regressions using probability weights. For  $W_1$ , weights are constructed separately for each treatment-control comparison; for  $W_2$ , weights are constructed for the control group and the treated group.

Appendix Table B.5 shows that the results are robust to not applying inverse probability weighting.

**Table B.5:** Heterogeneity results without inverse probability weighting

	Gender			Grade		Math skills	
	All (1)	Boys (2)	Girls (3)	8th (4)	Higher (5)	Low (6)	High (7)
<b>Panel A: GC aspirations</b>							
T1: parents	-0.029 (0.031)	0.014 (0.043)	-0.068 (0.045)	-0.047 (0.035)	0.008 (0.065)	-0.010 (0.044)	-0.050 (0.044)
T2: same-gender parent	0.071** (0.031)	0.098** (0.045)	0.033 (0.043)	0.090*** (0.034)	-0.018 (0.077)	0.111** (0.046)	0.030 (0.043)
T3: opposite-gender parent	-0.014 (0.039)	0.041 (0.051)	-0.085 (0.061)	0.016 (0.049)	-0.081 (0.067)	0.001 (0.064)	-0.020 (0.050)
Number of observations							
C + T1	2,141	1,102	1,039	1,617	524	1,058	1,083
C + T2	2,016	992	1,024	1,574	442	983	1,033
C + T3	2,674	1,489	1,185	1,747	927	1,029	1,645
Control mean							
1 <sup>st</sup> wave	0.000	0.096	-0.103	0.016	-0.053	0.074	-0.069
2 <sup>nd</sup> wave	0.000	0.089	-0.113	0.017	-0.033	-0.007	0.005
<b>Panel B: GC beliefs</b>							
T1: parents	-0.044 (0.040)	0.002 (0.057)	-0.092 (0.058)	-0.046 (0.046)	-0.099 (0.085)	-0.051 (0.061)	-0.042 (0.054)
T2: same-gender parent	-0.029 (0.043)	-0.004 (0.062)	-0.047 (0.059)	0.009 (0.048)	-0.160 (0.101)	0.011 (0.064)	-0.082 (0.059)
T3: opposite-gender parent	0.019 (0.038)	0.080 (0.050)	-0.060 (0.059)	0.064 (0.047)	-0.079 (0.066)	0.017 (0.063)	0.012 (0.047)
Number of observations							
C + T1	2,182	1,125	1,057	1,650	532	1,072	1,110
C + T2	2,062	1,012	1,050	1,605	457	1,003	1,059
C + T3	2,732	1,518	1,214	1,790	942	1,057	1,675
Control mean							
1 <sup>st</sup> wave	0.000	-0.187	0.198	0.015	-0.049	-0.081	0.075
2 <sup>nd</sup> wave	-0.000	-0.167	0.212	0.013	-0.024	-0.101	0.065

*Note:* This table reports coefficients from separate regressions of GC aspirations and GC beliefs on each treatment dummy without inverse probability weighting, estimated in different subsamples. This analysis is based on the field experiment sample. Panels correspond to the two outcomes; columns indicate subsamples; rows report treatment coefficients. The number of observations reflects the control and treatment groups used in each comparison. Control group means for each subsample are shown by wave. Variable construction and controls follow the specification described in the note of Figure 4. Robust standard errors are reported in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## B.6 Additional PAP Analyses

This section contains additional analyses specified in our pre-analysis plans (PAPs).

### B.6.1 Secondary Outcomes

Appendix Table B.6 presents results for the secondary outcomes specified in the pre-analysis plans. These outcomes are: the three beliefs questions used to construct GC beliefs (beliefs about skills fit, enjoyment of tasks, and fit with colleagues in GC occupations); beliefs about employer demand in GC occupations; and GIC beliefs, an index of beliefs about fit in GIC occupations constructed analogously to GC beliefs. While GIC beliefs was not preregistered as a secondary outcome for  $W_1$ , and the three beliefs ques-

tions were not preregistered as secondary outcomes for W2, we report all estimates for completeness. Beliefs about employer demand were not asked in the W2 survey. We do not report secondary outcomes based on the 2-week follow-up survey due to significant differential attrition. We also do not report the analysis with the administrative data due to attrition.

**Table B.6:** Results for PAP secondary outcomes

	Components of GC beliefs				
	Skills fit (1)	Task enjoyment (2)	Colleagues fit (3)	Employer demand (4)	GIC beliefs (5)
T1: parents	-0.038 (0.040)	-0.029 (0.040)	-0.039 (0.043)	0.040 (0.042)	0.055 (0.043)
T2: same-gender parent	-0.033 (0.042)	-0.025 (0.043)	-0.019 (0.044)	0.044 (0.044)	-0.017 (0.044)
T3: opposite-gender parent	0.050 (0.039)	0.038 (0.038)	-0.019 (0.038)		0.077** (0.038)
Number of observations					
C + T1	2,182	2,182	2,182	2,141	2,182
C + T2	2,062	2,062	2,062	2,016	2,062
C + T3	2,732	2,732	2,732		2,732

*Note:* This table reports coefficients from separate regressions of the secondary outcomes specified in our pre-analysis plans on each treatment dummy. This analysis is based on the field experiment sample. The dependent variable in each column is a different secondary outcome specified in our pre-analysis plans, standardized to have a mean of zero and SD of one in the control group. Rows report treatment coefficients. The number of observations reflects the control and treatment groups used in each comparison. Weighting and controls follow the specification described in the note of Figure 4. Robust standard errors are reported in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## B.6.2 Heterogeneity Analysis

Appendix Table B.7 presents results for the heterogeneity analysis specified in the pre-analysis plan for wave 1 and not already presented in Table 1.

**Table B.7:** Results for PAP heterogeneity analysis

	Pooled			Boys			Girls		
	GC top-ranked BL occ			GC top-ranked BL occ			GC top-ranked BL occ		
	All (1)	Yes (2)	No (3)	All (4)	Yes (5)	No (6)	All (7)	Yes (8)	No (9)
<b>Panel A: GC aspirations</b>									
T1: parents	-0.026 (0.031)	-0.038 (0.043)	-0.039 (0.064)	0.019 (0.043)	0.017 (0.051)	0.046 (0.079)	-0.068 (0.045)	-0.117** (0.057)	-0.046 (0.067)
T2: same-gender parent	0.071** (0.031)	0.069* (0.041)	0.070 (0.066)	0.093** (0.045)	0.075 (0.054)	0.142* (0.078)	0.036 (0.043)	0.005 (0.053)	0.038 (0.068)
Number of observations									
C + T1	2,141	1,148	993	1,102	629	473	1,039	519	520
C + T2	2,016	1,053	963	992	550	442	1,024	503	521
Control mean	0.000	0.536	-0.584	0.096	0.522	-0.412	-0.103	0.552	-0.749
<b>Panel B: GC beliefs</b>									
T1: parents	-0.042 (0.040)	-0.006 (0.059)	-0.104* (0.062)	0.003 (0.057)	0.036 (0.075)	-0.007 (0.090)	-0.090 (0.058)	-0.079 (0.080)	-0.136 (0.083)
T2: same-gender parent	-0.029 (0.043)	0.071 (0.061)	-0.128* (0.066)	-0.007 (0.062)	0.146* (0.081)	-0.161* (0.095)	-0.045 (0.059)	-0.019 (0.085)	-0.090 (0.085)
Number of observations									
C + T1	2,182	1,169	1,013	1,125	643	482	1,057	526	531
C + T2	2,062	1,070	992	1,012	560	452	1,050	510	540
Control mean	0.000	0.185	-0.199	-0.187	-0.108	-0.282	0.198	0.528	-0.121

*Note:* This table reports coefficients from separate regressions of GC aspirations and GC beliefs on each treatment dummy, estimated in different subsamples. This analysis is based on the field experiment sample. Panels correspond to the two outcomes; columns indicate subsamples Wave 1; rows report treatment coefficients. GC top-ranked BL occ refers to gender-congruence of the top-ranked occupation at baseline. The number of observations reflects the control and treatment groups used in each comparison. Variable construction, controls, and weighting follow the specification described in the note of Figure 4. Robust standard errors are reported in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## B.7 Surveys

### B.7.1 Overview

**Table B.8:** Overview of surveys

Survey	Key Sections
Parent-student school sample parents	Preferences (B.7.2) Beliefs (B.7.8)
Parent-student school sample students	Preferences (B.7.2) Beliefs (B.7.8)
Choice experiment sample parents	Preferences (B.7.2) Choice experiment (B.7.4)
Choice experiment sample students	Choice experiment (B.7.4)
Choice experiment sample teachers	Choice experiment (B.7.4)
Choice experiment sample EL students	Choice experiment (B.7.4) Contract occupation (B.7.9)
Field experiment sample students W <sub>1</sub>	Preferences (B.7.2) Importance of others' opinions (B.7.3) Control (B.7.5) Treatment (B.7.6) Aspirations (B.7.7) Beliefs (B.7.8)
Field experiment sample students W <sub>2</sub>	Control (B.7.5) Treatment (B.7.6) Aspirations (B.7.7) Beliefs (B.7.8)

### B.7.2 Preferences

#### Field experiment sample W<sub>1</sub> BL preferences

1. Currently, what are your most preferred apprenticeships? *Please, select at least 3 apprenticeships.* [List of 41 common occupations, including three text boxes for other occupations which we later cleaned]
2. Which occupations do you prefer the **most** and **second-most**? [Drop down with preferred occupations]

#### Parent-student school sample students' preferences

Please, think about your **skills** (both academic and social skills), **personality, interests, and future work life**.

1. Currently, what are your **most preferred** apprenticeships? *Please, select at least 2 occupations.* [List, including other 1/2/3]

2. [if selected more than 2 occs above] Which **2 apprenticeships** do you prefer the **most**? [List of occupations they just chose]

*[Randomize order of mother and father below]*

**You** and your **mother** might not agree on what is the best occupational choice.

3. Which occupations does **your mother** think would **suit you well**? *Please, select at least 2 occupations.* [List, including other 1/2/3]

4. [if selected more than 2 occs above] Which **2 apprenticeships** does **your mother** think would **suit you the most**? [List of occupations they just chose]

5. How **sure** are you about the two occupations **your mother** thinks would suit you the most? [answer choices = Very unsure/somewhat unsure/somewhat sure/very sure]

**You** and your **father** might not agree on what is the best occupational choice.

6. Which occupations does **your father** think would **suit you well**? *Please, select at least 2 occupations.* [List, including other 1/2/3]

7. [if selected more than 2 occs above] Which **2 apprenticeships** does **your father** think would **suit you the most**? [List of occupations they just chose]

8. How **sure** are you about the two occupations **your father** thinks would suit you the most? [answer choices = Very unsure/somewhat unsure/somewhat sure/very sure]

### **Student-parent school sample parents' preferences**

Please, think about your [daughter's/son's] **skills** (both academic and social skills), **personality, interests, and future work life**.

1. What apprenticeships do **you** think would **suit [her/him] well**? *Please select at least 2 occupations.* [List, including other 1/2/3]

2. [if selected more than 2 occs above] Which 2 apprenticeships do you think would be the **best choice** for [her/him]? [List of occupations they just chose]

3. How sure are you that the two apprenticeships you selected really are the best fit

for your [daughter/son]? [answer choices = Very unsure/somewhat unsure/somewhat sure/very sure]

4. You and your child might not agree on what is the best choice. What occupations do you think are currently **your [daughter's/son's] most preferred occupations**? *Please select at least 2 apprenticeships.* [List, including other 1/2/3]

5. [if selected more than 2 occs above] Which 2 apprenticeships does **your [daughter/son]** prefer the **most**? [List of occupations they just chose]

6. How sure are you about the two occupations **your [daughter/son]** prefers the **most**? [answer choices = Very unsure/somewhat unsure/somewhat sure/very sure]

7. Think about your [daughter's/son's] **other parent**. Which of the following apprenticeships does your [daughter's/son's] **other parent** think would **suit your daughter/son well**? *Please select at least 2 apprenticeships.* [List, including other 1/2/3]

8. [if selected more than 2 occs above] Which 2 apprenticeships does your [daughter's/son's] **other parent** think would be the **best choice** for your [daughter/son]? [List of occupations they just chose]

### **Choice experiment sample parents' preferences**

1. Considering your son's/daughter's skills, personality, and future work life, which of the following apprenticeships **do you think** would be the **best fit** to him/her? *Please select at least 2 apprenticeships. All apprenticeships on the list are EFZ (Eidgenössisches Fähigkeitszeugnis).* [List, including other 1/2/3]

### **B.7.3 Importance of others' opinions**

1. Thinking about your choice of apprenticeship. How **important** is the **opinion** of the following people to you? [answer choices = Unimportant/rather unimportant/rather important/important]

*[randomize order]*

- Mother
- Father
- Friends
- Teachers

#### B.7.4 Choice experiment

*(If choice experiment sample parents)* Imagine that the following 4 students are in the 2nd grade of secondary school at your daughter's/son's school in the same school type: *[Photos of four students]*

*(If choice experiment sample students)* Imagine the following four students were your classmates/visited the 8<sup>th</sup> grade of your school/visited the 8<sup>th</sup> grade of the school you have visited. *[Photos of four students]*

*(If choice experiment sample teachers and teach in secondary school that is not mixed)* Imagine you had the following six students in your 8<sup>th</sup> grade. *[Photos of six students]*

*(If choice experiment sample teachers and do not teach in secondary school or teach in mixed secondary school)* Imagine you had the following six students in your 8<sup>th</sup> grade. They all attend the less academically advanced school type in your canton. *[Photos of six students]*

*(If choice experiment sample EL students)* Imagine the following two students visited the 8<sup>th</sup> grade of your school/visited the 8<sup>th</sup> grade of the school you have visited. *[Photos of two students]*

They have both/all worked hard in their math and German classes, but they are **differently talented** and therefore also have **different grades**.

They are currently considering **which apprenticeship** they would like to do after 9th grade.

On the following pages, we will give you more information about each of these students. We will ask you to **select the apprenticeships** you think **fit best to each of them**.

*[randomize within each group]*

- *Name (female: Elena, Anna, Lara; male: Lukas, David, Nicolas)*
- *Grades in math and German (same grades, comparative math advantage, comparative language advantage)*
- *Likes (math, languages, social interactions)*
- *Wants (high future salary, good work-life balance, to help others, good promotion prospects)*

1. Which apprenticeships do you think would **fit well** to **NAME**? Please give her/him 2 suggestions. All apprenticeships on the list are EFZ (Eidgenössisches Fähigkeitszeugnis).

- List of 13 common occupations

*(The following part is only shown to choice experiment sample EL students)*

We also asked parents to children similar to you which apprenticeships they thought would fit well to NAME<sub>1</sub> and NAME<sub>2</sub>. What do you think were the most common occupations parents mentioned?

**For each correct answer, we will give you an additional draw in the lottery for an iPhone 15.**

Remember NAME<sub>1</sub>: show box with name, grades, likes, wants

*For each correct answer, we will give you an additional draw in the lottery for an iPhone 15.*

What do you think?

*[randomize order of mother and father]*

2. Which 2 apprenticeships did **MOTHERS most often** think would **fit well** to NAME?

- List of 13 common occupations

3. Which 2 apprenticeships did **FATHERS most often** think would **fit well** to NAME?

- List of 13 common occupations

Remember NAME<sub>2</sub>: show box with name, grades, likes, wants

*For each correct answer, we will give you an additional draw in the lottery for an iPhone 15.*

What do you think?

*[randomize order of mother and father]*

4. Which 2 apprenticeships did **MOTHERS most often** think would **fit well** to NAME?

- List of 13 common occupations

5. Which 2 apprenticeships did **FATHERS most often** think would **fit well** to NAME?

- List of 13 common occupations

- Choice experiment sample parents: answer 4 scenarios (2 girls and 2 boys).

- Choice experiment sample students: answer 4 scenarios (2 girls and 2 boys).

- Choice experiment sample teachers: answer 6 scenarios (3 girls and 3 boys).

- Choice experiment sample EL students: answer 2 scenarios (1 girl and 1 boy).

## **B.7.5 Control**

### **Control W<sub>1</sub>**

1. Have you ever considered doing or already done a TA in any of these occupations?

[answer choices = No/yes, considered/yes, done a TA]

- 50% of respondents shown 2 randomly selected occs from TA list
- 50% of respondents shown X and Y

2. In **your** opinion, what are the **3 most important factors** for your occupational choice?  
[randomize order]

- a) The future **salary**
- b) The future job **flexibility** (e.g., availability of part-time work)
- c) Possibilities for **further training** or **education**
- d) The **math** requirements
- e) The **language** requirements
- f) The **gender composition** in the occupation
- g) The degree of **social contact**
- h) **Helping** people (e.g., customers and patients)
- i) The **type of workplace** (office, outdoor, construction site, etc.)
- j) The **probability** to obtain an apprenticeship contract
- k) **Promotion** prospects
- l) Your **interests**

- Field experiment sample W1 survey: shown in the control arm. X and Y are randomly selected from the 3 GC occupations for the student's gender.

### Control W2

1. In **your** opinion, what are the **3 most important factors** for your occupational choice?  
[randomize order]

- a) The future **salary**
- b) The future job **flexibility** (e.g., availability of part-time work)
- c) Possibilities for **further training** or **education**
- d) The **math** requirements
- e) The **language** requirements
- f) The **gender composition** in the occupation (share of women/men)
- g) The degree of **social contact**
- h) **Helping** people (e.g., customers and patients)
- i) The **type of workplace** (office, outdoor, construction site, etc.)
- j) The **probability** to obtain an apprenticeship contract
- k) **Promotion** prospects
- l) Your **interests**

2. Currently, what are your most preferred apprenticeship occupations? Please, select **at least 3** occupations. [List, including other 1/2/3]

3. Which occupations do you prefer the **most** and **second-most**? [Drop down with preferred occupations]

4. Have you ever considered doing or already done a TA in any of these occupations? [answer choices = No/yes, considered/yes, done a TA]

- 50% of respondents shown 2 randomly selected occs from TA list

- 50% of respondents shown X and Y

- Field experiment sample W2 survey: shown in the control arm. X and Y are randomly selected from the 3 GC occupations for the student's gender.

## B.7.6 Treatment

### T1: parents

We surveyed several hundred parents to girls of your age who perform like you in school. We asked them what apprenticeship they thought their daughter would **fit well to**. Some of the **most common** occupations were X and Y.

That is, parents think girls like you **fit well** into occupations like X and Y.

Now think about your **own parents**.

1. How much have you talked with them about your occupational choice? [answer choices = Very much/much/moderately/little]

2. How well do **your parents** think **you** would fit to X and Y? [matrix, answer choices = Very well/well/little]

3. In **your parents'** opinion, what are the **3 most important factors** for your occupational choice? [randomize order]

a) The future **salary**

b) The future job **flexibility** (e.g., availability of part-time work)

c) Possibilities for **further training** or **education**

d) The **math** requirements

e) The **language** requirements

f) The **gender composition** in the occupation (share of women/men)

g) The degree of **social contact**

- h) **Helping** people (e.g., customers and patients)
  - i) The **type of workplace** (office, outdoor, construction site, etc.)
  - j) The **probability** to obtain an apprenticeship contract
- k) **Promotion** prospects
- l) Your **interests**

4. Which occupations do your **parents** think would **suit you well**? Did they, for instance, **recommend** you explore certain occupations? [List, including other 1/2/3]

5. [if selected only 2 occs] Which of the occupations do **your parents** think would be the **best choice** for you?

6. [if selected 3+ occs] Which occupations do **your parents** think would be the **best** and **second-best choices** for you?

*Field experiment sample W1 survey: shown in the T1 arm. X and Y are randomly selected from the 3 GC occupations for the student's gender. Shown here is the treatment for a female student. For a male student, the treatment is the same except boys are mentioned instead of girls.*

## **T2: same-gender parent**

We surveyed several hundred mothers to girls of your age who perform like you in school. We asked them what apprenticeship they thought their daughter would **fit well to**. Some of the **most common** occupations were **X** and **Y**.

That is, mothers think girls like you **fit well** into occupations like X and Y.

Now think about your **own mother**.

1. How much have you talked with her about your occupational choice? [answer choices = Very much/much/moderately/little]

2. How well does your mother think you would fit to X and Y? [matrix, answer choices = Very well/well/little]

3. In **your mother's** opinion, what are the **3 most important factors** for your occupational choice? [randomize order]

- a) The future **salary**
- b) The future job **flexibility** (e.g., availability of part-time work)
- c) Possibilities for **further training** or **education**
- d) The **math** requirements
- e) The **language** requirements

- f) The **gender composition** in the occupation (share of women/men)
- g) The degree of **social contact**
- h) **Helping** people (e.g., customers and patients)
- i) The **type of workplace** (office, outdoor, construction site, etc.)
- j) The **probability** to obtain an apprenticeship contract
- k) **Promotion** prospects
- l) Your **interests**

4. Which occupations does your **mother** think would **suit you well**? Did she, for instance, **recommend** you explore certain occupations? [List, including other 1/2/3]
5. [if selected only 2 occs] Which of the occupations does **your mother** think would be the **best choice** for you?
6. [if selected 3+ occs] Which occupations does **your mother** think would be the **best** and **second-best choices** for you?

*Field experiment sample W1 survey: shown in the T2 arm. X and Y are randomly selected from the 3 GC occupations for the student's gender. Shown here is the treatment for a female student. For a male student, the treatment is the same except fathers are mentioned instead of mothers and boys are mentioned instead of girls.*

### **T3: opposite-gender parent**

We surveyed several hundred fathers to girls of your age who perform like you in school. We asked them what apprenticeship they thought their daughter would **fit well to**. Some of the **most common** occupations were **X** and **Y**.

That is, fathers think girls like you **fit well** into occupations like X and Y.

Now think about your **own father**.

1. How much have you talked with him about your occupational choice? [answer choices = Very much/much/moderately/little]
2. How well does your father think you would fit to X and Y? [matrix, answer choices = Very well/well/little]
3. In **your father's** opinion, what are the **3 most important factors** for your occupational choice? [randomize order]
  - a) The future **salary**
  - b) The future job **flexibility** (e.g., availability of part-time work)

- c) Possibilities for **further training** or **education**
- d) The **math** requirements
- e) The **language** requirements
- f) The **gender composition** in the occupation (share of women/men)
- g) The degree of **social contact**
- h) **Helping** people (e.g., customers and patients)
  - i) The **type of workplace** (office, outdoor, construction site, etc.)
  - j) The **probability** to obtain an apprenticeship contract
- k) **Promotion** prospects
- l) Your **interests**

4. Which occupations does your **father** think would **suit you well**? Did he, for instance, **recommend** you explore certain occupations? [List, including other 1/2/3]

5. [if selected only 2 occs] Which of the occupations does **your father** think would be the **best choice** for you?

6. [if selected 3+ occs] Which occupations does **your father** think would be the **best** and **second-best choices** for you?

*Field experiment sample W2 survey: shown in the T3 arm. X and Y are randomly selected from the 3 GC occupations for the student's gender. Shown here is the treatment for a female student. For a male student, the treatment is the same except mothers are mentioned instead of fathers and boys are mentioned instead of girls.*

### **B.7.7 Aspirations**

#### **TA lottery**

We collaborate with several renowned companies in Switzerland.

We include you in an additional lottery. If you win, we will **provide you with a TA in the occupation of your choice** in a company close to your school.

1. What occupation would you like for the TA? *All apprenticeships are EFZ.*
  - a) Automotive technician
  - b) Baker–confectioner chef
  - c) Dental assistant
  - d) Retail specialist
  - e) Pharmacist

- f) Social care worker
- g) Healthcare assistant
- h) Information technologist
- i) Commercial clerk
- j) Design engineer
- k) Logistics technician
- l) Painter
- m) Digital media technician
- n) Medical secretary and assistant
- o) Assembly electrician
- p) Mechanical engineer
- q) Carpenter
- r) Draftsman

### Hypothetical offers

Imagine you receive offers for an apprenticeship contract in the following occupations.

1. **What would you choose?** You have 5 points to allocate between the apprenticeships. The **more points** you allocate to an apprenticeship, the **more likely** it is that you would **choose** that occupation for your apprenticeship. [must sum to 5]

[Randomized list order, same as in belief questions]

- Randomly show 1 of X and Y

- Show remaining GC occ that is not X or Y

- Show both GIC occs:

- Girls: Informatiker/in, Konstrukteur/in
- Boys: FAGE, MPA

### B.7.8 Beliefs

#### Students' beliefs

1. How much do you think **your skills** would fit to doing an apprenticeship as...?  
[matrix with answer choices = Not at all/little/moderately/good/very good]

2. How much do you think **you would like the work tasks** if you did an apprenticeship in ...? [matrix with answer choices = Not at all/little/moderately/much/very much]

3. How do you think **you would get along** with your **colleagues** if you did an appren-

ticeship in ...? [matrix with answer choices = Very poorly/poorly/neutral/ well/very well]

4. How much do you think employers are looking for someone **like you** to do an apprenticeship in the following occupations? [matrix with answer choices = Very unlikely/unlikely/ moderately/likely/very likely]

5. Imagine you want to do an apprenticeship as ... How **skeptical** or **supportive** would **your mother** be of your occupational choice? [matrix with answer choices = Very skeptical/skeptical/moderately/supportive/very supportive]

6. Imagine you want to do a XX apprenticeship. How **skeptical** or **supportive** would **your father** be of your occupational choice? [matrix with answer choices = Very skeptical/skeptical/moderately/supportive/very supportive]

7. How likely do you think it is that **you would be married at age 30** if you did an apprenticeship in ...? [matrix with answer choices = Very unlikely/unlikely/neither nor/likely/very likely]

8. How **satisfied** do you think you would be **with your job at age 30** if you did an apprenticeship in ...? [matrix with answer choices = Not at all/little/moderately/much/very much]

- Parent-student school sample students survey: shown belief questions 1, 2, and 5-8. Randomly shown 1 of each of GC occupations and GIC occupations. Order of questions 5 and 6 randomized.

- Field experiment sample W1 survey: shown belief questions 1-4. Shown 2 GC occupations (X or Y, and the remaining GC occupation) and 1 randomly selected GIC occupation (girls: Informatiker/in, Konstrukteur/in; boys: FAGE, MPA).

- Field experiment sample W2 survey: shown belief questions 1-3. Shown 2 GC occupations (X or Y, and the remaining GC occupation) and 2 GIC occupations (girls: Informatiker/in, Konstrukteur/in; boys: FAGE, MPA).

### **Parents' beliefs**

1. How do you think your [**daughter's/son's**] **skills** would fit to doing an apprenticeship as ...? [matrix with answer choices = Very poorly/poorly/ moderately/well/very well]

2. How much do you think your [**daughter/son**] would **like the work tasks** if [she/he] did an apprenticeship in ...? [matrix with answer choices = Not at all/little/ moderately/rather yes/very much]

3. How do you think your **[daughter/son]** would get along with [her/his] **colleagues** if you did an apprenticeship in ...? [matrix with answer choices = Not at all / poorly / moderately/ well / very well]
4. How much do you think **employers** are **looking** for **someone like your [daughter/son]** to do an apprenticeship in the following occupations? [matrix with answer choices = Not at all/little/moderately/rather yes/ very much]
5. Imagine your [daughter/son] wanted to do an XX apprenticeship. How **skeptical** or **supportive** would **you** be of [her/his] occupational choice? [matrix with answer choices = Very skeptical/skeptical/moderately/supportive/very supportive]
6. Imagine your [daughter/son] wanted to do an XX apprenticeship. How **skeptical** or **supportive** would your [daughter's/son's] **other parent** be of [her/his] occupational choice? [matrix with answer choices = Very skeptical/skeptical/moderately/supportive/very supportive]

Now imagine your **[daughter/son]** when [she/he] is 30 years old.

7. How likely do you think it is that [she/he] would be married at age 30 if [she/he] did an apprenticeship in ...? [matrix with answer choices = Very unlikely/unlikely/neither nor/likely/very likely]
8. How satisfied do you think [she/he] would be with [her/his] job at age 30 if [she/he] did an apprenticeship in ...? [matrix with answer choices = Not at all/little/moderately/ much/very much]

- Randomly shown 1 of each of GC occupations and GIC occupations.

### **B.7.9 Contract occupation**

1. [if has contract for next year] What apprenticeship will you do? / [if currently apprentice] What apprenticeship are you doing? [List, other specify]