

# Addressing Gender-Based Segregation through Information

Evidence from a Randomized Experiment  
in the Republic of Congo

*Marine Gassier*

*Léa Rouanet*

*Lacina Traore*



**WORLD BANK GROUP**

Africa Region

Gender Innovation Lab

February 2022

## Abstract

This paper describes a randomized experiment that used a sample of men and women who were eligible for a vocational training program in the Republic of Congo to test the effect of providing information on trade-specific earnings on trade choice. The analysis finds that women are 28.6 percent more likely to apply to a traditionally male-dominated trade when receiving this information. Men and women are also both more likely to apply to more lucrative trades. This may in part be driven by the intervention filling an information gap. The analysis suggests, however, that behavioral mechanisms, which make trade-specific returns more salient in the decision process of applicants, play an even bigger role. Indeed, there are much larger treatment

effects among women who have technical knowledge and experience or male role models, even though the information does not impact their expectations of earnings in male-dominated trades. The treatment is thus most effective among women who are already well positioned to cross over into male-dominated trades and can give greater weight to earning considerations when choosing a trade. The results indicate that this low-cost intervention can be a useful tool to encourage women to cross over to more lucrative trades in which their presence has been limited, and thereby contribute to reducing the gender gap in earnings. There is also a high potential for interventions that would pair information on returns and trade exposure.

---

This paper is a product of the Gender Innovation Lab, Africa Region. It is part of a larger effort by the World Bank to provide open access to its research and make a contribution to development policy discussions around the world. Policy Research Working Papers are also posted on the Web at <http://www.worldbank.org/prwp>. The authors may be contacted at [lrouanet@worldbank.org](mailto:lrouanet@worldbank.org).

*The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.*

Addressing Gender-Based Segregation through Information:  
Evidence from a Randomized Experiment in the Republic of  
Congo

Marine Gassier, Léa Rouanet and Lacina Traore<sup>§</sup>

**Key words:** gender gaps, earnings, vocational training, male-dominated trades

**JEL Codes:** I26, J16, J24, J31, O15

---

<sup>§</sup>Gassier: World Bank; mgassier@worldbank.org; Rouanet: World Bank; lrouanet@worldbank.org; Traore: World Bank; ltraore1@worldbank.org. This paper is a product of the World Bank Africa Gender Innovation Lab, Office of the Chief Economist, Africa Region. The authors would like to thank Sébastien Tamegnon for great support with the field experiment and the data collection, and Joséphine Tassy for great research assistance. We gratefully acknowledge funding from the World Bank Group's Umbrella Facility for Gender Equality. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

## 1. Introduction

Gender segregation in the labor market – the fact that men and women typically engage in different activities – is prevalent throughout Sub-Saharan Africa and strongly contributes to the observed gender gaps in earnings. Mitigating this segregation is an important mechanism to reduce gender differences in earnings. Alibhai et al. (2017) find that female-owned enterprises in male-dominated sectors perform better on average than those in female-concentrated sectors, with firms achieving higher profits and having more employees. In addition to improving women’s earnings, helping them cross over into new sectors can also lead to a more efficient allocation of the labor force. Encouraging these crossovers requires an understanding of the drivers of gender-based occupational segregation.

There are two information-related factors that could fuel and sustain this segregation. First, men and women may have different expectations regarding earnings in different trades, particularly regarding earnings in traditionally male-dominated trades. Campos et al. (2015) elicit the expectations of women who are not working in traditionally male-dominated trades in Uganda. They find that on average, they believe their earnings to be comparable to that of entrepreneurs who have opted for traditionally male-dominated activities, when in fact they are substantially lower (women in male-dominated trades – a minority – have more accurate expectations). Second, even when men and women have access to similar information and form similar expectations, they may not factor in these expectations in the same way in their education and career decisions. Jensen (2012) shows that, in India, young women in communities who received information on labor-market returns in the business process outsourcing industry opted to delay marriage and chose instead to enter the labor market or obtain more schooling. This suggests that receiving additional information can alter women’s earnings expectations and thereby modify their labor market and educational choices. At the same time, other studies point to significant gender disparities in the effect of information on labor-market returns in specific occupations on individuals’ educational choices. Abramitzky and Lavy (2014) show that, in Israeli kibbutzim, men were more responsive than women to a policy change that boosted returns to education and increased their investments in secondary and post-secondary education to a greater extent.<sup>1</sup> Attanasio and Kaufmann (2017)

---

<sup>1</sup> The gender difference is clear when considering post-secondary education, but not when considering secondary education only, as the standard errors associated with this specific sample are larger.

examine how expectations regarding labor and marriage market outcomes shape the college enrollment decisions of Mexican high school graduates. They find that both types of returns are important determinants of this decision, but that there are gender differences in the relative weight assigned to each, with women giving greater relative weight to marriage market returns. Together, these studies suggest that, while a range of factors may drive gender-based occupational segregation, gender differences in expectations regarding trade-specific earnings, as well as in these expectations' role in shaping individual educational and career choice, both contribute to this segregation.

With this new experiment, we first examine gender differences in beliefs regarding earnings in traditionally male-dominated versus other trades among applicants to a vocational training program in the Republic of Congo. After collecting trade-specific earnings data from informal businesses in urban Congo, we then test how men and women who receive this information on trade-specific median earnings update these beliefs. We also test whether receiving this information makes them more likely to apply for training in a male-dominated and/or more lucrative trade. Our study includes a sample of 4,394 individual applicants for which we collected survey data, and 1,690 individuals for which we observe training outcomes using administrative data.

This setup builds on earlier experiments which have examined how individuals may adapt their career and educational decisions to novel information on labor market returns. Some, but not all of these experiments show significant effects of access to information on individual choices. In the Dominican Republic, students completed more years of education when they received information on the actual returns to secondary school (Jensen 2010). In India, high school students who underestimated labor-market returns to education were more likely to plan on enrolling in higher education after receiving information on actual earnings (Rao 2016). In Madagascar, providing information on returns to education improves perceived returns, attendance and test scores of primary school students (Nguyen 2008). However, in Colombia, high-school students who received information on returns to higher education did not improve their academic performance or modify their enrollment choices (Bonilla-Mejía et al. 2019). Similarly, in rural China, providing information on returns to junior high school students does not impact their outcomes (Loyalka et al. 2013). In Kenya, Hicks et al. (2011) conducted an experiment which, like ours, offers an opportunity to observe how men's and women's choices of trade may respond to

information on trade-specific earnings. Recipients of a voucher for vocational training also received information on actual returns to vocational education. The information intervention, which highlighted the increased returns to earnings in male-dominated trades and also included a video featuring women working in such trades, led to a significant increase in the share of young women enrolling in courses for male-dominated activities. Compared to this setting, our experiment's control group also saw a video that offered a general presentation of the trades offered in the program, and that featured young women trained in male-dominated trades, so that we are able to clearly isolate the impact of the information on trade-specific returns only.

The experiment presented here tests the effect of providing information on trade-specific earnings among applicants to a vocational training program launched by the government of the Republic of Congo. By focusing on this population, we can observe men's and women's choices of trade as they are making it. This provides a rare opportunity to isolate some of the determinants of this choice, which sets our experiments apart from studies examining selection into specific trades by sampling individuals already engaged in these trades (World Bank Group, 2019).

In line with the two information-related drivers of gender segregation in the labor market identified above, providing information on trade-specific earnings could affect male and female applicants' choice of trade through two distinct mechanisms. First, it can correct applicants' inaccurate assumptions on trade-specific earnings. Second, it could induce them to give more consideration to potential earnings when they select a trade. This second, behavioral effect, stems in part from the timing of the information intervention, which is delivered just before applicants make their choice, and could therefore become a more salient driver of their choice. These two mechanisms are not mutually exclusive. Being able to check their assumptions regarding earnings in different trades may engage individuals in slow deliberative (type 2) thinking and reduce their propensity to rely on intuitive (type 1) processing (Kahneman 2011; Barone et al. 2019). This information may also reduce applicants' uncertainty regarding earnings in different trades. This may in turn lead them to give greater consideration to this dimension as they make this choice (Baker et al. 2018).

We first observe that male and female applicants are over-optimistic about earnings in their traditional trades (men about earnings in male-dominated trades, women about earnings in non-male dominated trades). An important feature of this population is also that applicants of both genders are aware that male-dominated trades are more lucrative than other trades. This implies

that gender differences in access to information are unlikely to explain their own gender segregation in the labor market. On average, women know that earnings are higher in male-dominated trades, and only 13.8% of women believe that earnings are similar or greater in non-male-dominated trades. Nevertheless, relative to men, women still overestimate the earnings in non-male-dominated trades and part of the effect of the information intervention may come from lowering their expectations regarding the earnings they may achieve in the trades they traditionally favor.

Indeed, we find that this low-cost intervention increases the share of women opting to apply to a traditionally male-dominated trade by 28.6%. In addition, as a result of the intervention, both men and women move to higher-return trades and opt-out of lower return trades. Even among women who, after receiving information on trade-specific earnings, continue to opt for a traditional or non-male-dominated trade, they are more likely to select the most lucrative of these trades (bakery). Interestingly, the information treatment is found to be more efficient for women who have already overcome some barriers to crossing-over. The treatment effect is almost four times larger among women with technical experience or knowledge and three times larger among women with a male role model.

The information intervention tested in this experiment works to mitigate occupational segregation, which could partly be the result of some beliefs updating, but is most probably largely due to the intervention increasing the weight given to earnings at the time of decision.

Lastly, our analysis studies the effects of the intervention on men's and women's attendance and training completion rates. Existing evidence shows that young women face greater constraints than men when enrolling in a skills development program. Cho et al. (2013) find that women participating in a vocational training in Malawi face greater family obligations than men and receive less support. Hicks et al. (2011) observe lower participation rates in women, irrespective of the type of trade they are being trained in. To facilitate and encourage participation, the program we study offered daily stipends conditional on attendance during the first phase of the training (in-class). While our experiment design does not allow us to isolate the role of this stipend, we observe a relatively high rate of participation, with 80% of youth enrolled in the program completing the first phase of the training and enrolling in an internship. Even more interestingly, there are no gender differences in participation across male-dominated and other trades, nor differences in training outcomes by information status.

The rest of the paper is organized as follows. Section 2 describes the intervention and section 3 explains the data collection process and provides a description of the study sample. Section 4 discusses the estimation strategy, while section 5 presents the main results. Section 6 provides a discussion of these results, including variations across sub-groups and considering the broader population of applicants, as well as the impact on training outcomes. Section 7 concludes.

## **2. Description of the intervention and experimental design**

The Government of the Republic of Congo implemented both a vocational training program and an apprenticeship program in the two largest cities of the country (Brazzaville and Pointe-Noire) in 2019. In each city, it opened four application centers in October-November 2018 that remained operational for a week. In all the centers, interested individuals could apply to any of the trades available in their city. Each application center proposed training programs in both male-dominated and non-male-dominated trades. This important feature meant that the project managed to attract a good proportion of female candidates (Section 3).

The randomization of the provision of information on trade-specific earnings was done “on the spot”. As individuals showed up in application centers, they were randomly assigned to either a group that would watch a video including information on trade-specific earnings, or a group that would watch another version of the video that did not include this information.<sup>2</sup> This randomization was conducted for all applicants and stratified by application center, resulting in 8 strata. Though we cannot exactly quantify the additional cost of adding information on returns in the video displayed to applicants, the cost of producing both videos was about 18,000 USD, while the cost of displaying the videos and facilitating the sessions in all application centers was around 33,400 USD. Divided by the number of applicants, this yields a unit cost of around 3.5 USD per applicant, which makes it a relatively low-cost intervention. These numbers give the total cost of displaying information on training programs and on trade-specific returns, which is an upper bound for the cost of the intervention providing information on returns.

The treatment group video presented information on median earnings in each of the trades available in the city of application (see Figure A 1 in the Appendix). To estimate these

---

<sup>2</sup> Both videos offered a general presentation of the trades in which training was offered and featured young women trained in male-dominated trades, so that our experiment isolates the impact of the information on earnings.



median earnings, we conducted a survey in Pointe-Noire and Brazzaville in 2017-2018 with former students of the selected training centers who were working in each trade. For the trades in which it was difficult to find alumni (e.g., newly offered trades), we collected information from other individuals in the same locality. In general, we surveyed an average of 30 individuals per trade, with a minimum of 20 individuals when it was harder to identify people working in the given trade. We confirm that these estimates are consistent with data collected through a household survey focused on employment and earnings conducted in 2009 (Survey on employment and informal activities; comparison available upon request).

The vocational training program was open to youth aged 17 to 30, who had completed at least the third grade of the lower secondary education cycle but did not get the upper secondary education certification (Baccalauréat). The apprenticeship program was open to youth aged 16 to 24 who had no education or had dropped out from primary school (the program ran the two tracks in parallel). Both applicant types were also requested to have been out-of-school for at least a year before applying to the program. Applicants were asked to select either the vocational training or the apprenticeship program before watching the videos and thus before getting any information on trade-specific earnings.

Immediately after watching the video, applicants were then asked to select the trade they wished to be trained in. Again, since all applicants watched a video, and the only difference between the treatment and the control group was whether the video contained information on trade-specific earnings, the differences in trade selection can be attributed to this information. One limitation of the intervention is that the information given reflected median earnings conditional on finding employment in a given trade, but that the video did not provide indication of differences across trades in the likelihood of finding employment. Applicants may have factored in their own expectations regarding the risk of unemployment in different trades in their decision.

As the program anticipated excess demand for some trades, and possibly insufficient demand in others, applicants were given the option to make up to two ranked choices to increase their chances of selection. Some applicants were reallocated from their first to their second choice, but no applicants were allocated to a trade that they had not selected. After selecting one or two trades, all applicants went through a brief interview with a training provider specialized in that trade. The provider assessed their mathematics and literacy skills, along with their motivation and their level

of qualification for the trade they had selected. A “fitness score” was then computed, reflecting these four dimensions.

### **3. Data and sample characteristics**

The main data source is a survey conducted among a subset of applicants to the vocational training program (we discuss estimates on the full population of applicants to both the vocational training program and the apprenticeship program in section 6.3). The sample selection process for this survey was driven by the requirements of a complementary but distinct evaluation that the research team is conducting, tracking the effect of the training itself on participants’ economic outcomes. In this other evaluation, we will also study the impact of the information treatment on participants’ economic outcomes. To constitute this sample, we started from the universe of applicants to the program and excluded people that did not meet the eligibility criteria, which gives 18,518 eligible applicants. This sample was then stratified between individuals who had received the information on trade-specific earnings and individuals who had not received it. This was done to maximize power when later measuring the effect of this information on employment and earnings. Within these two strata, we grouped applicants by their first-choice trade. We calculated the number (N) of spots available in each trade. For each trade, we then selected  $2.5 \times N$  eligible applicants who opted for the trade in question as first choice to build our study sample, among which two-thirds were women and one-third were men, whenever possible, i.e., when enough women had selected this trade. In cases where there were more than  $2.5 \times N$  applicants for a trade (or more precisely more than  $2.5 \times N \times 2/3$  female applicants or  $2.5 \times N/3$  male applicants), we ranked individuals by the ‘fitness score’ assigned to them by training providers when they submitted their application. We then allocated excess applicants (with the lowest fitness scores) to their second choice if it was a less popular one, to ensure that all available spots in the program were filled.

This process gave us a total sample of 4,426 individuals to conduct the above-mentioned survey. Forty percent of individuals in this sample were then randomly assigned to receive training: to prevent attrition, a replacement list of 20 percent of the sample had been randomly selected and provided to the project team. As a result, 1,784 individuals were randomly selected to participate in the training, among which 777 were selected in Brazzaville and 1,007 in Pointe- Noire, and we identified a total of 2,642 individuals as control group. The analyses presented below are based on a sample of 4,394 individuals because the information on trade choices was missing for 32

individuals.

Baseline data was collected in November-December 2018 with 1,539 individuals in Brazzaville and 2,887 individuals in Pointe-Noire. Selected candidates were trained between January 2019 and September 2019. All results shown in Section 5 are based on baseline survey data, which ensures that the sample remains consistent across the tests performed. The effect of the information treatment on training outcomes is estimated on the subset of surveyed individuals who were invited to participate in the vocational training program, using monitoring data (section 6.2).

Table 1 provides key statistics on the subsample of applicants to the vocational training program who have also been surveyed and who belong to two of the following four groups: those who did not receive the additional information on earnings (control, column (1)), those who did (treatment, column (2)), men (column (3)) and women (column (4)). Two additional columns provide the p-values for the t-test comparing these groups pairwise.

The average applicant is about 23 years old. The gender is balanced between experimental groups with about 40% of women among surveyed applicants. Forty-five percent of applicants live with their parents, and most applicants are single. Over 70% of applicants state that they knew someone within their community who practices the trade selected at application, which shows that applicants had some perception about the trade selected prior to the program.

Despite being balanced in education attainment, we find a significant difference in cognitive ability (measured by Raven matrices) between treatment and control at baseline. There are slightly more applicants living with their parents and fewer applicants with at least one dependent child (dummy variable) in the treatment group.

We also observe systematic differences between men and women. Men are more educated, with 37% of them having attended high school compared to 27% of women. Men have also better test scores for Raven matrices and digit sequences. Similar shares of men and women live with their parents, but women are less likely to be the heads of the household. Women are also more likely to have dependent children, with 20% of men stating at least one dependent child compared to 56% of women. Females start their first sexual relation earlier than men. Men also have more work experience, and they are more likely to have relevant networks (someone working in a male-dominated trade or in the trade selected as first choice).

**Table 1: Characteristics of baseline survey sample**

	Control (1)	Treatment (2)	P-value (1)-(2)	Men (3)	Women (4)	P-value (3)-(4)
Age	23.015	22.940	0.432	22.774	23.297	0.000***
Woman	0.396	0.390	0.719			
Married or in a committed relationship	0.094	0.100	0.501	0.049	0.17	0.000***
Attended at least high school	0.329	0.330	0.948	0.371	0.266	0.000***
Lives with his/her parents	0.434	0.460	0.083*	0.442	0.453	0.486
Household head	0.18	0.162	0.120	0.230	0.082	0.000***
At least one dependent child	0.353	0.330	0.099*	0.200	0.563	0.000***
Brazzaville	0.662	0.639	0.108	0.662	0.635	0.068*
Age at first sexual relation	15.857	15.826	0.829	15.475	16.408	0.000***
Score at digit sequence	3.211	3.218	0.858	3.237	3.179	0.096*
Score at Raven matrices	9.299	9.030	0.005***	9.500	8.666	0.000***
Has technical knowledge	0.779	0.773	0.643	0.892	0.596	0.000***
Has technical experience	0.434	0.434	0.980	0.656	0.092	0.000***
Has worked in the past 7 days	0.588	0.593	0.742	0.625	0.538	0.000***
Has worked in the past 30 days	0.714	0.706	0.561	0.766	0.626	0.000***
Has worked in the past 6 months	0.904	0.909	0.515	0.932	0.867	0.000***
Ability to make his/her own decisions [0-30]	22.562	22.43	0.357	22.665	22.246	0.004***
Perception of women's ability to make their own decisions [0-30]	23.245	23.394	0.360	23.157	23.560	0.016**
Believe women earn less in MDT [0-3]	0.702	0.683	0.450	0.751	0.604	0.000***
Believe women earn less in non-MDT [0-3]	0.195	0.208	0.350	0.195	0.210	0.274
Household wealth condition (above median)	0.492	0.508	0.305	0.491	0.514	0.132
Knows someone who works in a MDT	0.734	0.740	0.610	0.812	0.620	0.000***
Knows somebody within the community who practices the selected trade	0.753	0.772	0.146	0.792	0.716	0.000***
Has a male role model	0.516	0.500	0.290	0.712	0.193	0.000***
Observations	2317	2077		2666	1728	

Note: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. MDT: male-dominated trade.

## 4. Estimation strategy

### 4.1 Estimating effects on trade-specific earnings beliefs

Applicants' beliefs regarding trade-specific earnings are measured with survey questions on their beliefs regarding typical earnings in two male-dominated trades (auto mechanics and welding) and two other trades (tailoring and hairdressing).<sup>3</sup> In the analysis,<sup>4</sup> we consider three outcome variables: 1) beliefs regarding earnings in male-dominated trades, which is the average of the respondent's beliefs for the first two trades, 2) beliefs regarding earnings in other trades, which is the average of the respondent's beliefs for the last two trades, and 3) ratio of earnings beliefs in male-dominated trades over earnings beliefs in non-male-dominated trades. All earnings beliefs variables are winsorized at the 1% level.

We test for differences in beliefs regarding trade-specific earnings between applicants who received the information and applicants who did not, by estimating the following model:

$$\text{BELIEF}_i = \alpha + \beta_1 W_i + \beta_2 \text{Info}_i + \beta_3 W_i \text{Info}_i + \pi_{ic} + \varepsilon_i \quad (1)$$

Where  $\text{BELIEF}_i$  is one of the three outcome variables described above,  $\text{Info}_i$  is a dummy variable equal to 1 for individuals assigned to the information intervention,  $W_i$  is a dummy variable equal to 1 if the applicant is a woman,  $\pi_{ic}$  is a vector of stratification and control variables, including the application center and all imbalanced variables.<sup>5</sup> Since applicants who came together to the application center can influence each other regarding their earnings beliefs and trade choice, we are worried about intra-cluster correlation on our main outcomes. Consequently, standard errors are clustered by application center and date of application (half-days), resulting in 171 clusters.

The parameter  $\beta_2$  is an estimate of the average effect of the intervention for men, and the parameter  $\beta_3$  of the average difference between its effect on men and on women.  $\beta_2 + \beta_3$  gives the effect of the video on women's earnings beliefs.

---

<sup>3</sup> Due to limitations on the duration of the questionnaire, trade-specific earnings beliefs were not collected for all trades that were offered in the training program.

<sup>4</sup> All outcome variables and estimating equations had been recorded in our pre-analysis plan registered on [RIDIE](#).

<sup>5</sup> Based on the imbalances shown in Section 3, imbalanced variables that we control for include whether the applicant lives with her parents and her Raven score.

Alternatively, we also estimate men-only and women-only equations, identifying the impact of the information in these subsamples, following the same specification. Results are shown in the Appendix.

## 4.2 Estimating effects on trade selection

The nature of the trades selected by applicants (male-dominated or not) is a key consideration of this research project. To categorize trades as male-dominated or not, we ask individuals in the study sample to estimate the proportion of men in each trade. Trades are classified as male-dominated if this proportion is at least 70 percent.<sup>6</sup> The proportions reported by respondents in our survey are consistent with proportions observed in the 2009 *Survey on Employment and Informal Activities*.<sup>7</sup>

Figure 1 below presents the relationship between two variables: the average answer on the proportion of men in each trade, for respondents in the control group (who did not receive the information on trade-specific earnings),<sup>8</sup> and the median monthly earnings displayed in the treatment video for each trade. The proportion of men per trade is positively correlated with median earnings in said trade, which confirms that in this context trades perceived as male-dominated offer higher earnings. So, for women, picking a male-dominated trade also means picking a higher-earning trade.

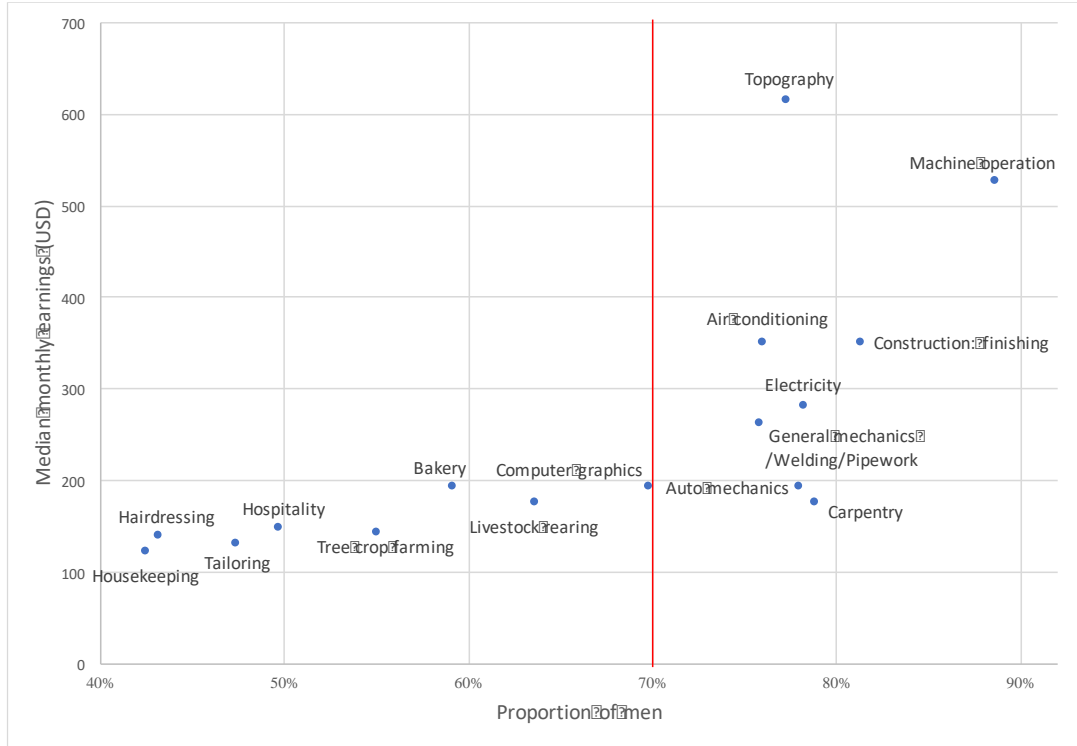
---

<sup>6</sup> We test the robustness of our results to an alternative threshold in section 6.4.

<sup>7</sup> This comparison is available upon request.

<sup>8</sup> Men and women estimate similar proportions of men in all trades.

**Figure 1: Scatterplot of control group respondents' beliefs on the proportion of men and the median monthly earnings in each trade**



To estimate the effect of the information intervention on trade selection, we estimate the following equations:

$$\text{TRADE}_i = \alpha + \gamma_1 W_i + \gamma_2 \text{Info}_i + \gamma_3 W_i \text{Info}_i + \pi_{ic} + \varepsilon_i \quad (2)$$

$$\text{MDT}_i = \alpha + \beta_1 W_i + \beta_2 \text{Info}_i + \beta_3 W_i \text{Info}_i + \pi_{ic} + \varepsilon_i \quad (3)$$

$$\text{3\_HIGH}_i = \alpha + \lambda_1 W_i + \lambda_2 \text{Info}_i + \lambda_3 W_i \text{Info}_i + \pi_{ic} + \varepsilon_i \quad (4)$$

$$\text{NON\_MDT\_HIGH}_i = \alpha + \theta_1 W_i + \theta_2 \text{Info}_i + \theta_3 W_i \text{Info}_i + \pi_{ic} + \varepsilon_i \quad (5)$$

Where  $\text{TRADE}_i$  is a vector of dummies equal to 1 when each individual trade offered in this training program is chosen as first choice;  $\text{MDT}_i$  is a dummy variable equal to 1 if the respondent's first choice is a male-dominated trade;  $\text{3\_HIGH}_i$  is a dummy variable equal to 1 if the respondent's first choice is one of the three highest-paying trades, i.e. topography, machine operation and air conditioning (AC); and  $\text{NON\_MDT\_HIGH}_i$  is a dummy variable equal to 1 if the respondent's first

choice is the highest-paying non-male-dominated trade (under the 70% threshold), i.e. bakery;<sup>9</sup> and  $\pi_{ic}$  is a vector of control variables including the application center and all imbalanced variables.<sup>10</sup> Standards errors are clustered by application center and half-days, as the choices of groups of applicants who presented themselves together could be correlated. The parameter  $\beta_2$  is an estimate of the average effect of the intervention on men's propensity to select a male-dominated trade, and the parameter  $\beta_3$  of the average difference between its effect on men's and women's likelihood of selecting a male-dominated trade.  $\beta_2 + \beta_3$  gives the effect of the information on returns on women's likelihood to select a male-dominated trade. Similarly,  $\gamma_2 + \gamma_3$  gives the effect of information on women's likelihood to select an individual trade.

Alternatively, we also estimate men-only and women-only equations, identifying the impact of the information on earnings in these subsamples, following the same specification. Results are shown in the Appendix.

The effects of the information intervention on earnings and employment – both among applicants who were later invited to participate in a training and participants who were not – are examined in a distinct, forthcoming paper.

## 5. Results

### 5.1 Impact on earnings beliefs

We first consider the impact of providing information on trade-specific earnings on men's and women's beliefs regarding average earnings in male-dominated and non-male-dominated trades. Both men and women are over-optimistic regarding earnings in each trade. Figure A 2 to Figure A 5 in the Appendix show the distribution of earnings beliefs regarding the four trades in the control group, who did not receive the information on earnings, compared to the observed median value of earnings in the data collected for this experiment (see Section 2).

---

<sup>9</sup> Applicants were allowed to make up to two ranked choices. Our results are robust to estimating an alternate specification, considering a dummy equal to 1 if one of the respondent's choices (out of two possible choices) meets the criteria of each outcome variable. Results are discussed in section 6.4.

<sup>10</sup> Based on shown imbalances in Section 3, imbalanced variables that we control for include whether the applicant lives with her parents and her Raven score.



Following Equation (1), Table 2 shows the estimated impact of providing information on trade-specific earnings on earnings beliefs.<sup>11</sup> Column (1) shows the effect on respondents' beliefs regarding earnings in male-dominated trades, while column (2) shows the effect on beliefs regarding earnings in non-male-dominated trades (both winsorized at the 1% level). Column (3) shows the impact on the ratio of earnings beliefs in male-dominated trades over earnings beliefs in non-male-dominated trades (ratio is winsorized at the 1% level).<sup>12</sup> We find that compared to men, women believe that average earnings in male-dominated trades are 19.6% lower. They also believe that average earnings in non-male-dominated trades are 5.8% higher.

Turning to the impact of the information intervention, we find that men exposed to the information on trade-specific earnings report lower expectations regarding earnings in male-dominated trades (by 11.2%). They also expect lower earnings in non-male-dominated trades, by 5.4%. For women, the effects of the intervention are concentrated in non-male-dominated trades: the information intervention decreases their expected earnings in such trades by 10.3%. Their expectations regarding earnings in male-dominated trades do not change significantly as a result of the intervention. Turning to the ratio in column (3), we find that men's expectations regarding earnings in male-dominated trades relative to other trades significantly decrease (there is no impact for women).

These results suggest that, while both men and women expect higher earnings in male-dominated trades, their initial expectations regarding earnings in both types of trade still differ. As a result of the intervention, their expectations converge partially. Women no longer expect higher earnings than men do in non-male-dominated trades, however men continue to expect higher earnings than women in male-dominated trades (Woman+Woman\*Info pvalue test).

---

<sup>11</sup> Additionally, Table A 1 in the Appendix shows gender-disaggregated results.

<sup>12</sup> All results are robust to an inverse hyperbolic sine transformation of earnings beliefs (available upon request).

**Table 2: Effect of the information treatment on earnings beliefs**

	Respondent's beliefs of monthly earnings in MDT (USD)	Respondent's beliefs of monthly earnings in non-MDT (USD)	Ratio of beliefs of earnings in MDT over earnings in non- MDT
	(1)	(2)	(3)
Woman	-92.99*** (13.61)	12.44** (5.749)	-0.571*** (0.0783)
Information treatment	-53.10*** (13.28)	-11.65** (4.728)	-0.185** (0.0756)
Woman x Information treatment	35.08* (18.08)	-11.75 (7.532)	0.229** (0.112)
Control mean (men)	474.5	215.2	2.568
Median earnings displayed in video	228.07	135.97	1.677
p-value test: Woman+Woman*Info	0.000	0.895	0.000
p-value test: Info+Info*Woman	0.153	0.000	0.574
Observations	4,394	4,394	4,394
R-squared	0.045	0.018	0.037

Outcome variables are winsorized at the 1% level. Median earnings displayed in the treatment video correspond to the average of median earnings in the two male-dominated (or two non-male-dominated) trades which respondents were asked their beliefs on. Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents.

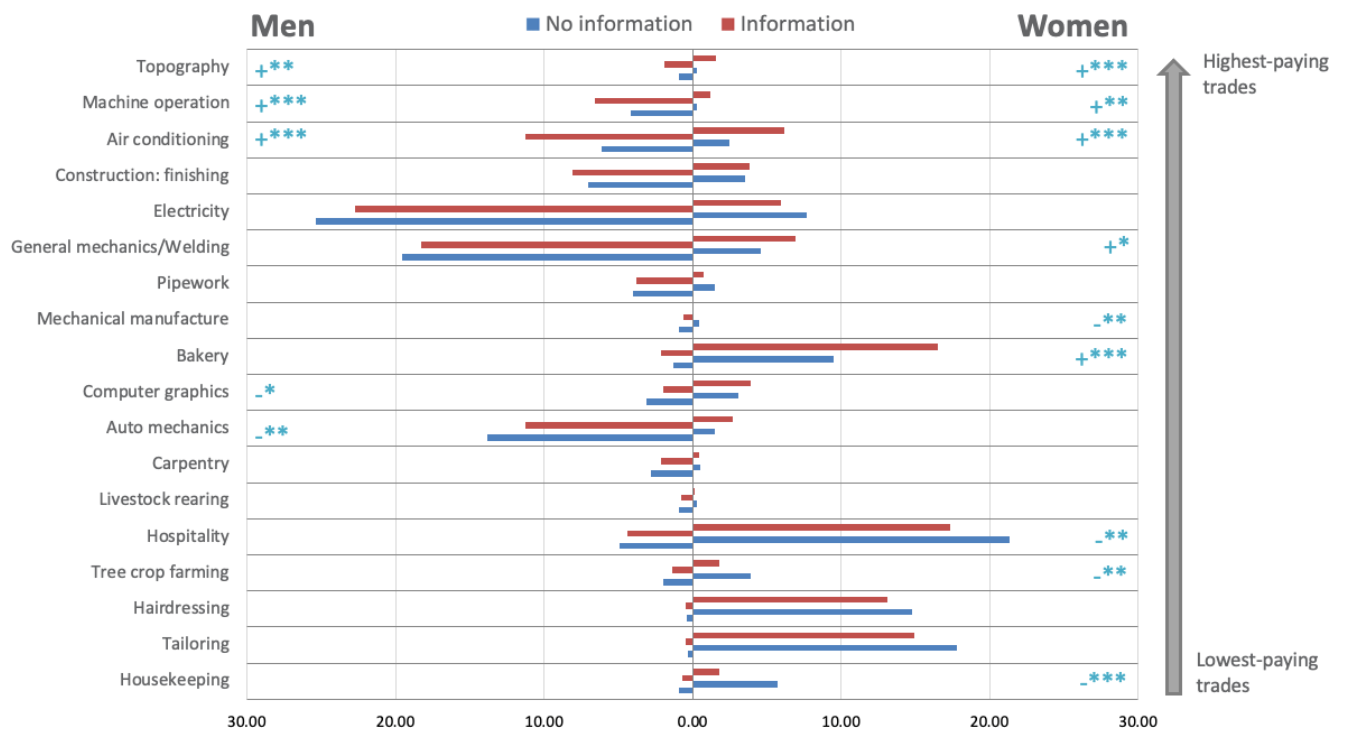
Sample: Surveyed applicants

## 5.2 Impact on trade selection

Following equation (2), Figure 2 shows the impact of the information on earnings on men and women's individual trade choice (see Table A 2 in the Appendix for regression tables). In the figure, the blue bars display the proportion of men (left-side of the figure) and women (right-side of the figure) picking each trade as first choice in the control group, while red bars display the same proportions in the treatment group, who was selected to receive the information on trade-specific earnings. The figure also displays whether the difference between the control group and the treatment group is significant.

In the context of this training program, notably, applicants were able to choose among many trades, with a wide distribution of earnings (see Figure A 1). In this figure, trades are ordered from lowest-paying trades at the bottom to highest-paying trades at the top. Women in the treatment group opt out of lower-return traditional trades, such as tailoring and hospitality trades, while they are more likely to go to higher-return traditional trades, such as bakery. Both men and women receiving information on trade-specific earnings are more likely to opt for the three higher-return male-dominated trades (air conditioning, machine operator, topography). Men also opt out of lower return trades (auto mechanics and computer graphics).

**Figure 2: Effect of the information treatment on applicants' choice of trade**



\*\*\* p<0.01, \*\* p<0.05, \* p<0.1 for the test of equality of coefficient between the control group not receiving information on earnings (blue bars) and the treatment group receiving the information (red bars).

Following the set of equations (3), (4) and (5), Table 3 shows the impact of the information treatment on three trade choice variables. Column (1) displays the gendered impact of the information treatment on the likelihood of picking a male-dominated trade as first choice, which was the main and most anticipated outcome of the study. Column (2) shows the gendered impact on the likelihood of picking one of the three highest-paying trades available in the program, i.e.

topography, machine operation and air conditioning. This outcome was built after we identified particular trade mobility in these specific trades when looking at the impact of the information treatment on trade choice (Figure 2). Column (3) shows the gendered impact of the information treatment on the likelihood of picking the highest-paying non-male-dominated trade, i.e. bakery.<sup>13</sup> Additionally, Table A 3 in the Appendix shows gender-disaggregated results.

Turning to the male-dominated trade choice outcome in column (1), we observe that among surveyed applicants to the program, only 26.9% of women picked a male-dominated trade as first choice, compared to 89.4% of men (column 1). Women who see the video with information on trade-specific earnings are 7.7 percentage points more likely to select a male-dominated trade, which is a 28.6% increase compared to the control group. Men's likelihood of picking a traditional trade is not impacted, which is not surprising given that this likelihood is already very high in the control group. However, we find that both men and women are more likely to pick one of the three highest-paying trades after receiving the information; the probability to pick one of these trades increases by 76.8% for men and by 185.8% for women (column 2). For women, we also find that even if they continue to select traditional trades after the information intervention, they tend to pick those that are more lucrative. More specifically, column (3) shows that receiving trade-specific information impacts women's likelihood of picking bakery as first choice, which is the highest non-male-dominated trade.

---

<sup>13</sup> While bakery is the highest paid non-male-dominated trade, it should be noted that the share of male workers estimated by respondents (58%) is close to the 70%-threshold chosen to define a male-dominated trade.

**Table 3: Effect of the information treatment on trade selection**

	First choice is a trade that is male-dominated	First choice is one of the 3 highest-paying trades	First choice is the highest-paying non-male-dominated trade
	(1)	(2)	(3)
Woman	-0.625*** (0.020)	-0.080*** (0.009)	0.082*** (0.012)
Information treatment	0.003 (0.012)	0.086*** (0.014)	0.007 (0.006)
Woman x Information treatment	0.074*** (0.026)	-0.026 (0.018)	0.063*** (0.018)
Control mean (men)	0.894	0.112	0.013
p-value test: Woman+Woman*Info	0.000	0.000	0.000
p-value test: Info+Info*Woman	0.002	0.000	0.000
Observations	4,394	4,394	4,394
R-squared	0.378	0.042	0.064

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants

Reducing gender differences in expectations regarding earnings in male-dominated versus other trades does not completely eliminate gender segregation across trades. After being exposed to the information intervention, the majority of women continue to select traditional trades. Information is only one of several drivers of this segregation. Nevertheless, these results suggest that it is a significant one. Furthermore, when considering the issue of whether men and women respond differently when receiving similar information, it is worth noting that the propensity to select one of the three most lucrative trades after the intervention increases at the same rate across genders (column 2).

## 6. Discussion

### 6.1 Heterogeneity

Heterogeneity analysis is helpful in identifying which of the two mechanisms identified earlier – closing gaps in access to information or creating conditions in which applicants give greater weight to trade-specific earnings when picking a trade to be trained in – explain the impact of information. One way to distinguish these two mechanisms would have been to look at heterogeneity across sub-groups with different baseline expectations of earnings across different trades. Unfortunately, the set-up of the program did not allow us to collect applicants’ expectations prior to the intervention. Comparisons across other sub-groups still provide some insights into the relative contribution of each of these mechanisms.

To study which individuals are more impacted by the information treatment, we compare treatment effects across a number of sub-groups, listed in our pre-analysis plan. This section highlights the applicants’ characteristics that were associated with greater treatment effects.

We find that women who already have some characteristics that correlate with crossing over, such as having a role model, technical knowledge or technical experience (note that in this sample 60 percent of women have technical knowledge, and 9 percent have technical experience),<sup>14</sup> are more likely to be impacted by the information treatment (Table 4). The heterogeneous impact on the male-dominated trade choice outcome is positive: the treatment has no effect among women with no technical knowledge, but a 12.4 pp effect is observed among women with this kind of knowledge. The size of the effect is also almost four times as large among women with technical experience compared to women without this experience (21.7 pp versus 5.7 pp). Furthermore, while among women who do not have a role model, the treatment effect is 5.5 pp, a substantially larger effect of 16.8 pp is observed among women who do have a role model.<sup>15</sup>

Interestingly however, looking at the impact of the information treatment on choosing the highest-paying non-male-dominated trades, women with crossover characteristics are negatively impacted. Providing information has a 10.8 pp effect on women with no technical knowledge, and only a 4.2 pp effect on women with technical knowledge. This suggests that the information treatment

---

<sup>14</sup> Technical knowledge and technical experience are defined in Table A 4.

<sup>15</sup> A role model is someone who serves as a professional example to the respondent.

encourages women who have already overcome some barriers to choose a male-dominated trade, but that these characteristics are not decisive to pick the highest-paying trades.

Additionally, we investigate dimensions related to individuals' demographic and household characteristics, along with their level of education and work experience (Table A 5 in the Appendix) and do not find meaningful relationships.

These results imply that providing information on trade-specific earnings can contribute to the labor market desegregation by attracting more women to higher-return trades, and that this effect is concentrated among women who already overcame some barriers to crossing over. This suggests that an information intervention could be most effective if coupled with complementary interventions providing technical experience and knowledge to women or matching them with role models.

**Table 4: Heterogeneity on trade choice - technical knowledge and experience, role model**

	First choice is a MDT		First choice is one of the 3 highest-paying trades		First choice is the highest-paying non-male-dominated trade	
	Men	Women	Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Information treatment	0.004 (0.044)	0.005 (0.032)	0.118*** (0.038)	0.028** (0.013)	-0.002 (0.018)	0.108*** (0.026)
Has technical knowledge	0.073** -0.031	0.052* -0.029	0.031 (0.024)	0.013 (0.012)	-0.014 (0.012)	-0.008 (0.019)
Info x Technical knowledge	-0.000 -0.046	0.124*** -0.043	-0.035 (0.042)	0.050** (0.022)	0.011 (0.017)	-0.066** (0.032)
Interaction test (Info+Info*var)	0.799	0.000	0.000	0.000	0.092	0.054
Information treatment	0.015 (0.023)	0.057** (0.024)	0.099*** (0.020)	0.052*** (0.013)	-0.001 (0.011)	0.082*** (0.019)
Has technical experience	0.082*** (0.019)	0.213*** (0.065)	0.031** (0.015)	0.021 (0.026)	-0.018*** (0.007)	0.003 (0.033)
Info x Technical experience	-0.017 (0.027)	0.160* (0.086)	-0.017 (0.028)	0.054 (0.051)	0.013 (0.012)	-0.123*** (0.046)
Interaction test (Info+Info*var)	0.936	0.012	0.000	0.029	0.021	0.332
Information treatment	0.003 (0.025)	0.055** (0.025)	0.069*** (0.025)	0.057*** (0.013)	0.000 (0.013)	0.071*** (0.019)
Has a male role model	0.021 (0.021)	0.127*** (0.035)	0.011 (0.019)	0.027 (0.017)	-0.023** (0.009)	0.004 (0.026)
Info x Male role model	0.003 (0.029)	0.113* (0.060)	0.027 (0.029)	0.000 (0.031)	0.010 (0.014)	-0.005 (0.038)
Interaction test (Info+Info*var)	0.698	0.005	0.000	0.051	0.038	0.062
Control mean	0.894	0.267	0.112	0.032	0.013	0.095
Observations	2,666	1,728	2,666	1,728	2,666	1,728

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants



To understand whether these heterogeneous treatment effects impact women's choices by updating their beliefs on earnings, we run heterogeneity regressions with the same variables on earnings beliefs outcomes.<sup>16</sup> In Table 5, we find that in the absence of the information treatment, women with technical capabilities are already aware of the fact that male-dominated trades are more lucrative than others. Women with technical knowledge (respectively experience) believe that earnings in male-dominated trades are 12.5% (respectively 18.5%) higher. In addition, their expectations regarding earnings in the two categories of trade do not change significantly as a result of the information intervention. This suggests that the treatment effect is most important among women who, having some technical capabilities, are able to be responsive to an intervention that prompts them to give greater weight to earnings considerations. Furthermore, the effect is also substantially larger among women who have a male role model.

The information on earnings creates a response in a certain category of women, specifically women simultaneously equipped for crossing over, not because they are more prone to update their beliefs, but rather because they are ready to bring to the fore earnings when making their trade choice.

---

<sup>16</sup> The analyses based on other characteristics that did not turn out to be associated with differential treatment effects are presented in the appendix (Table A 6). These dimensions include demographic and household characteristics, as well as level of education and work experience.

**Table 5: Heterogeneity on earnings beliefs - technical knowledge and experience, role model**

	Respondent's beliefs of monthly earnings in MDT (USD)		Respondent's beliefs of monthly earnings in non-MDT (USD)		Ratio of beliefs of earnings in MDT over earnings in non-MDT	
	Men	Women	Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Information treatment	-38.310 (32.571)	-15.073 (16.651)	11.162 (16.391)	-27.624*** (10.169)	-0.461** (0.224)	0.128 (0.092)
Has technical knowledge	43.997* (23.847)	48.049*** (18.197)	15.565 (12.119)	2.637 (9.306)	-0.100 (0.170)	0.257** (0.099)
Info x Technical knowledge	-15.162 (35.850)	-0.382 (27.507)	-25.283 (16.791)	7.681 (13.186)	0.309 (0.241)	-0.128 (0.134)
Interaction test (Info+Info*var)	0.000	0.431	0.003	0.009	0.062	0.999
Information treatment	-40.964** (19.141)	-17.762 (12.649)	-7.873 (7.858)	-26.013*** (6.139)	-0.195* (0.118)	0.065 (0.070)
Has technical experience	74.675*** (15.826)	70.562* (41.715)	16.480** (6.780)	-3.729 (16.720)	0.288*** (0.109)	0.493* (0.279)
Info x Technical experience	-15.330 (23.773)	2.226 (54.683)	-5.220 (10.130)	28.992 (23.634)	0.018 (0.154)	-0.255 (0.324)
Interaction test (Info+Info*var)	0.001	0.771	0.032	0.894	0.071	0.568
Information treatment	-47.446** (19.909)	-13.305 (14.050)	-17.700** (8.897)	-21.337*** (6.927)	-0.142 (0.121)	0.018 (0.078)
Has a male role model	16.219 (18.762)	38.802 (25.592)	-0.952 (7.894)	17.295 (12.018)	0.127 (0.114)	0.011 (0.147)
Info x Male role model	-5.196 (25.222)	-15.988 (37.996)	8.990 (10.458)	-9.422 (17.279)	-0.059 (0.159)	0.152 (0.206)
Interaction test (Info+Info*var)	0.002	0.389	0.119	0.037	0.040	0.390
Control mean	474.402	377.531	215.087	225.198	2.568	1.982
Observations	2,666	1,728	2,666	1,728	2,666	1,728

Outcome variables are winsorized at the 1% level.

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants

## 6.2 Impact on training outcomes

It is key to look at the impact of providing information on earnings not only on trade selection at enrollment, but also on training outcomes, to investigate whether women who crossover end up dropping out more from the training or not. Table A 7 in the Appendix describes the subsample of surveyed participants to the training program.

Importantly, we study these training outcomes in the context of a program that took into account the risk of youths', and particularly women's dropouts in its design. To facilitate and encourage participation, the program in which this experiment takes place offered daily stipends conditional on attendance.

To detect significant differences in training outcomes based on the type of trade selected, we estimate the following model:

$$\text{Participation}_i = \alpha + \beta_1 W_i + \beta_2 \text{Info}_i + \beta_3 W_i \text{Info}_i + \pi_{ic} + \varepsilon_i \quad (6)$$

Where  $\text{Participation}_i$  is one of three outcome variables: (i) a continuous variable equal to the participant's attendance rate during training (first phase of the program), (ii) a dummy variable equal to 1 if the participant completed training (first phase of the program) and was then placed in an internship, and (iii) a dummy variable equal to 1 when the participant graduated from the program.  $\pi_{ic}$  is a vector of control variables always including the application center and all imbalanced variables.<sup>17</sup> The parameter  $\beta_1$  is an estimate of the difference between women's and men's training outcomes when they did not receive the information on earnings, while  $\beta_1 + \beta_3$  gives the difference between women's and men's training outcomes when receiving the information, and  $\beta_2 + \beta_3$  gives the difference between women who received the information and women who did not.  $\beta_3$  thus captures the differential impact of the video on training outcomes for women.

Table 6 shows the estimated impact of the information treatment on participants' training outcomes, interacted with a gender dummy. Columns (1) to (3) show that neither gender nor the information treatment have an impact on attendance rate during training, nor on the likelihood that participants completed the training and were placed in an internship, nor on graduation. Reassuringly, we see that women who received the additional information on trade-

---

<sup>17</sup> Based on the imbalances shown in Table A 7, imbalanced variables that we control for include the participant's Raven score, her digit score, whether her household has a high number of assets, and whether she knows somebody within her community who practices the trade she selected first.

specific earnings, and who we know were more likely to be trained in a male-dominated trade, have similar training outcomes as others. Additionally, Table A 8 in the Appendix shows gender-disaggregated results.

Interestingly, while our experiment design does not allow us to isolate the role of the daily stipend, that was conditional on attendance, we can hypothesize that this feature of the program contributes to the relatively high rate of participation, with more than 80% of youth enrolled in the program completing the training and enrolling in an internship.

**Table 6: Effect of the information treatment on training outcomes**

	Participant's attendance rate during training	Participant completed training and was placed in an internship	Participant graduated from the program
	(1)	(2)	(3)
Woman	-0.046	-0.032	-0.002
	(0.029)	(0.033)	(0.042)
Information treatment	-0.009	-0.036	-0.014
	(0.024)	(0.023)	(0.032)
Woman x Information treatment	0.021	0.037	0.024
	(0.039)	(0.040)	(0.045)
Control mean – Men	0.618	0.856	0.542
Control mean - Women	0.574	0.807	0.516
Treatment mean - Men	0.608	0.813	0.528
Treatment mean - Women	0.580	0.807	0.545
p-value test: Woman+Woman*Info	0.558	0.893	0.679
p-value test: Info+Info*Woman	0.622	0.949	0.723
Observations	1,690	1,690	1,686
R-squared	0.017	0.038	0.252

Robust standard errors in parentheses, clustered by training centers.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Training centers, raven score, digit score, household has a high number of assets, knows somebody within her community who practices the trade selected as first choice

Sample: Surveyed applicants invited to participate in a training

### 6.3 Impact on the full population of applicants

We also estimate the effect of the information intervention on all applicants' choices, including applicants to both the vocational training (which the survey sample is extracted from) and to the apprenticeship program (see Section 2). For this, we use administrative data collected by

the project. During the collection of applications in the two cities, a total of 18,518 applications (10,950 males and 7,567 females) were collected, including 8,082 in Brazzaville and 10,436 in Pointe-Noire. We extracted information on applicants' demographic characteristics and on their education level, as well as the trade they selected from the application forms.

In Table 7, we look at the effect of providing information on trade-specific earnings on the choices of the full population of applicants, rather than the narrower populations of individuals who were 1) eligible to participate in the vocational training, and 2) included in the overall study sample. The results presented so far give us a sense of the extent to which providing information on trade-specific earnings can reduce gender segregation in the context of a specific training intervention, in which there are more spots available in male-dominated trades than in other trades (1,200 and 563 respectively). In contrast, observing the effects of the intervention among the full sample of applicants provides a sense of the degree to which it can affect the preference of a broader population of urban youth.

Table 7 shows that, although this impact is smaller, the intervention still has a significant effect on the preferences of women applicants, with an 11.7% increase in the share of women who picked a male-dominated trade, a 37.1% increase in the share of women who picked one of the 3 highest-paying trades, and a 6.3% increase in the share of women who picked the highest-paying non-male-dominated trade.

**Table 7: Effect of the information on trade choice – all applicants**

	First choice is a trade that is male-dominated	First choice is one of the 3 highest-paying trades	First choice is the highest-paying non-male-dominated trade
	(1)	(2)	(3)
Woman	-0.680*** (0.009)	-0.130*** (0.009)	0.123*** (0.007)
Information treatment	0.016*** (0.005)	0.070*** (0.008)	-0.001 (0.003)
Woman x Information treatment	0.011 (0.011)	-0.050*** (0.010)	0.064*** (0.010)
Control mean (men)	0.910	0.185	0.026
p-value test: Woman+Woman*Info	0.000	0.000	0.000
p-value test: Info+Info*Woman	0.007	0.000	0.000
Observations	18,518	18,518	18,518
R-squared	0.520	0.111	0.084

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Controls: Application centers & whether the applicant is in charge of himself/herself

Sample: All eligible applicants to the apprenticeship or vocational training program.

#### 6.4 Definition of trade choice outcomes

Finally, we test the robustness of our analysis to the definition of crossing over. More precisely, we test how robust our results are to changing the threshold used to define a male-dominated trade, and to extending the analysis to the two trade choices made during application. We also discuss the impact of the intervention on a continuous variable of the median earning of the trade being chosen first.

##### *Definition of male-dominated trade*

The first alteration of the outcome variable we test is lowering the threshold that defines a male-dominated trade from 70% to 55%. When this threshold is adjusted, three additional trades are considered male-dominated: bakery, livestock rearing and infographics. Results are similar to the results obtained with the 70%-threshold that are presented in Table 3: the impact of the

information treatment is significant for women, with 39.4% more women opting for a male-dominated trade (compared to 28.6% with the 70%-threshold).<sup>18</sup>

*Considering the full set of trade choices*

A second alteration we test is to consider the full set of trades applicants could select. As noted, applicants could select up to two trades, that they had to rank as a first and second choice. Table 8 reports how applicants' first and second choices are distributed between male-dominated and other trades for men and women in the control and treatment groups. It shows that among the control group, 13.7% of women selected a traditional trade for their first choice, but a male-dominated trade for their second choice. Looking at the impact of expanding the analysis to second choices is thus important.

**Table 8: First and second choices**

		1 <sup>st</sup> choice=MDT 2 <sup>nd</sup> choice=MDT	1 <sup>st</sup> choice=MDT 2 <sup>nd</sup> choice=non-MDT	1 <sup>st</sup> choice=non-MDT 2 <sup>nd</sup> choice=non-MDT	1 <sup>st</sup> choice=non-MDT 2 <sup>nd</sup> choice=MDT
Men	Control (1)	0.811	0.081	0.053	0.054
	Treatment (2)	0.819	0.071	0.061	0.045
	t-test difference (1)-(2)	-0.008	0.010	-0.008	0.009
Women	Control (1)	0.152	0.116	0.594	0.137
	Treatment (2)	0.213	0.129	0.515	0.141
	t-test difference (1)-(2)	-0.062***	-0.014	0.079***	-0.003

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1  
Sample: Surveyed applicants

Consequently, we build a dummy equal to 1 when at least one of the choices is a male-dominated trade (defined at the original 70% threshold). As shown in Table A 9 in the Appendix, results are consistent with results on applicants' first choices only. The impact of the information treatment on this outcome is smaller for women (19.5%), which can partly be explained by the higher control mean, with 40.5% of women choosing at least one male-dominated trade, compared to 26.9% of women opting for a male-dominated trade as first choice. Additionally, we look at the impact on the other trade selection outcome: a dummy

<sup>18</sup> Regression tables available upon request.

which equals 1 when the first or second choice is one of the three highest-paying trades. For both men and women, receiving information adds 11.1 percentage points to the share of applicants choosing one of these trades as first or second choice, which translates in a much stronger impact for women, due to women's lower control mean: +31.2% for men and +152% for women. Overall, results are coherent with the impact shown on first choice only. Lastly, we run the same regression as in Table A 2, using trade-specific dummies when the applicant selected a trade as first or second choice; results are robust to this other definition of the outcome variables, and available upon request.

These analyses indicate that the observed treatment effects hold when adopting different definitions of the outcome variable. They also suggest that there might be ways in which modifying how applicants are asked to select a trade (number of choices, ranking or not) could affect applicants' inclination to make non-traditional choices. Further research and experiments are needed to gain insights into this issue.

#### *Median earnings as outcome*

Additionally, we estimate the impact of the information treatment on the median earnings in the first trade chosen by the applicant. The information treatment has a +7% impact on the first choice's median earnings for men, and a +2.1% impact for women.<sup>19</sup> These results confirm that both men and women move to more lucrative trades. Given that the proportion of men in each trade is positively correlated with the trade's median earnings, this also implies that women cross over to non-traditional trades.

## **7. Conclusion**

This paper shows that a relatively low-cost intervention has the potential to attract women to male-dominated trades. Even though data collected prior to the training show that information on trade-specific earnings may not be such a strong barrier for women in this context, updating their priors still led to a significant shift in trade choice. In the experiment, 28.6 percent more women (7.7 percentage points) picked a male-dominated trade in the group who saw the video with information on trade-specific earnings. This shift is largely driven by a behavioral mechanism: women who received information on trade-specific earnings shortly before selecting a trade give greater consideration to this information when making their choice. In addition, both men and women switch to the higher-return trades offered in this program (air-

---

<sup>19</sup> Regression table available upon request.



conditioning, machine operator, topography). Interestingly, women also drop out of lower-return traditional trades (hospitality) and are more likely to pick the higher-paying traditional trade (bakery) when receiving the information on earnings.

This paper further documents that women's training outcomes are similar to those of men, and that despite being more likely to be trained in a male-dominated trade, women who received the information on returns are as likely to complete the training and to graduate from the program; their attendance rates are also similar.

Lastly, the impact of the video is enhanced for women who had already overcome some barriers to crossing over. Women who have technical experience or a male role model are more than three times more likely to cross over as a result of the information treatment.

In order to desegregate TVET programs and to have more women enrolled for training in high-paying trades, program implementers should display information on trade-specific earnings prior to application. The impact of information interventions could be further enhanced if it was coupled with trade exposure, through the acquisition of technical experience, or through direct exposure to role models. Such interventions have the potential to desegregate the labor market, and in turn to reduce gender gaps in earnings.

## 8. References

Abramitzky, R.; Lavy V. 2014. How Responsive Is Investment in Schooling to Changes in Redistributive Policies and in Returns?. *Econometrica*, 82(4), pp.1241-1272.

Alibhai, S.; Buehren, N.; Papineni, S.; Pierotti, R. 2017. Crossovers: female entrepreneurs who enter male sectors – Evidence from Ethiopia. Policy Research Working Paper; no. 8065. World Bank, Washington, DC. © World Bank.

Attanasio, O.; Kaufmann, K. 2017. Education choices and returns on the labor and marriage markets: Evidence from data on subjective expectation. *Journal of Economic Behavior & Organization*, 140, pp. 35-55.

Baker, R.; Bettinger, E.; Jacob, B.; Marinescu, I. 2018. The Effect of Labor Market Information on Community College Students' Major Choice. *Economics of Education Review*, 65, pp. 18-30.

Barone, C.; Schizzerotto, A.; Assirelli, G.; Abbiati, G. 2019. Nudging gender desegregation: a field experiment on the causal effect of information barriers on gender inequalities in higher education. *European Societies*, 21(3), pp. 356-377.

Bonilla-Mejía, L.; Bottan, N.; Ham, A. 2019. Information policies and higher education choices experimental evidence from Colombia. *Journal of Behavioral and Experimental Economics*, 83.

Campos, F.; Goldstein, M.; McGorman, L.; Munoz Boudet, A. M.; Pimhidzai, O. 2015. Breaking the metal ceiling: Female entrepreneurs who succeed in male-dominated sectors. Policy Research Working Paper; No. 7503. World Bank, Washington, DC. © World Bank.

Cho, Y.; Kalomba, D.; Mobarak, A. M.; Orozco, V. 2013. Gender Differences in the Effects of Vocational Training: Constraints on Women and Drop-out Behavior. Policy Research Working Paper; No. 6545. World Bank, Washington, DC. © World Bank.

Hicks, J.; Kremer, M.; Mbiti, I.; Miguel, E. 2011. Vocational Education Vouchers Delivery and Labor Market Returns: A Randomized Evaluation among Kenyan Youth. Unpublished.

Institut National de la Statistique du Congo (INS-Congo). 2009. Enquête sur l'Emploi et le Secteur Informel au Congo (EESIC).

Jensen, R. 2010. The (Perceived) Returns to Education and the Demand for Schooling. *The Quarterly Journal of Economics*, 125(2), pp. 515-548.

Jensen, R. 2012. Do Labor Market Opportunities Affect Young Women's Work and Family Decisions? Experimental Evidence from India. *The Quarterly Journal of Economics*, 127(2), pp. 753–792.

Kahneman, D. 2011. Thinking, fast and slow. Macmillan.

Loyalka, P.; Liu, C.; Song, Y.; Yi, H.; Huang, X.; Wei, J.; Zhang, L.; Shi, Y.; Chu, J.; and Rozelle, S. 2013. Can information and counseling help students from poor rural areas go to

high school? evidence from china. *Journal of Comparative Economics* 41 (4), pp. 1012-1025.

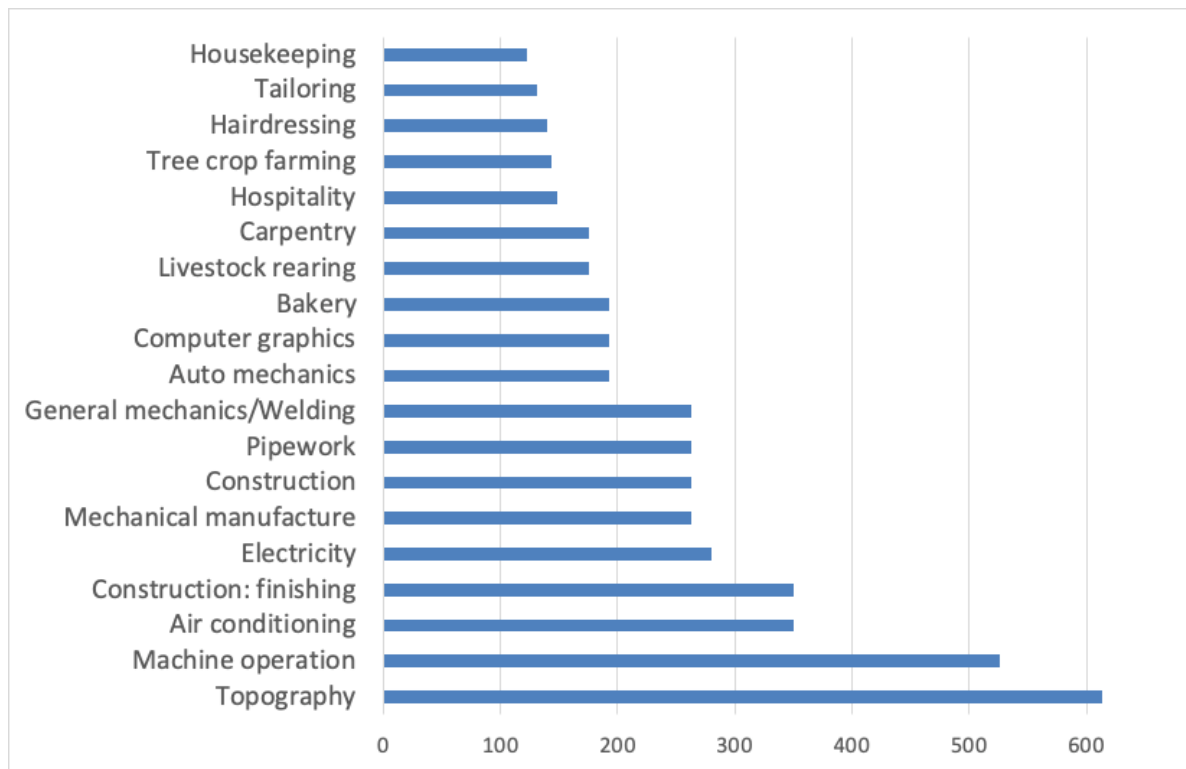
Nguyen, T. 2008. *Information, Role Models and Perceived Returns to Education: Experimental Evidence from Madagascar*. Ph. D. thesis, MIT.

Rao, T. 2016. *Information, Heterogeneous Updating & Higher Education Decisions: Experimental Evidence from India*. Unpublished.

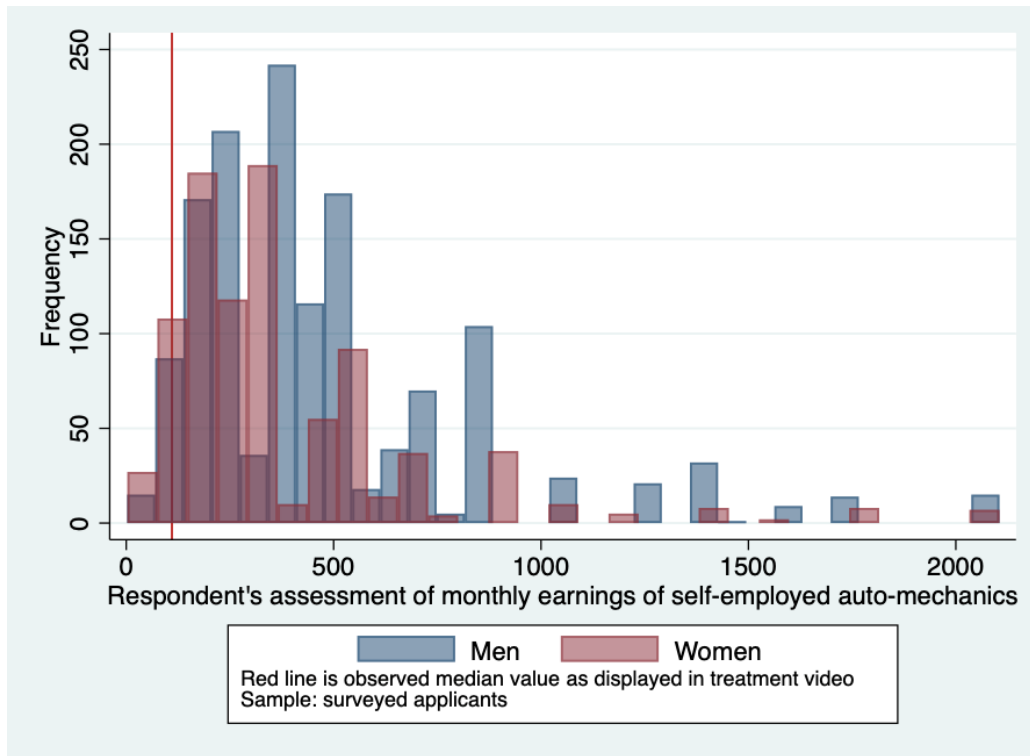
World Bank Group. 2019. *Profiting from Parity: Unlocking the Potential of Women's Business in Africa*. World Bank, Washington, DC. © World Bank.

## 9. Appendix

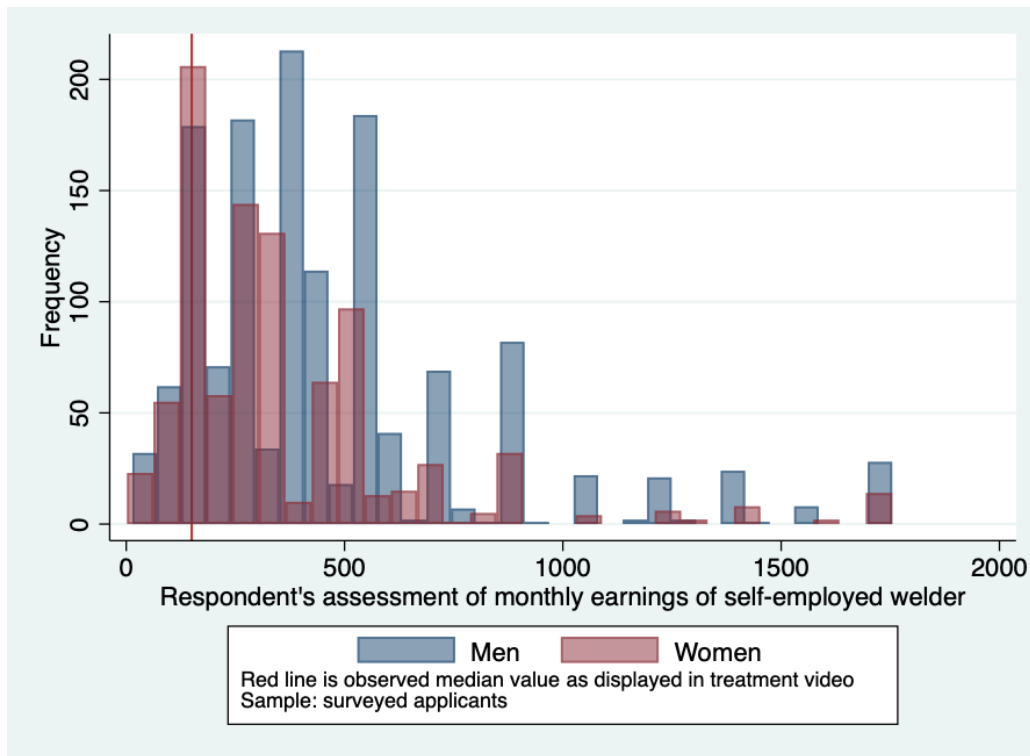
Figure A 1: Information on median earnings (in USD) provided to applicants in the treatment video



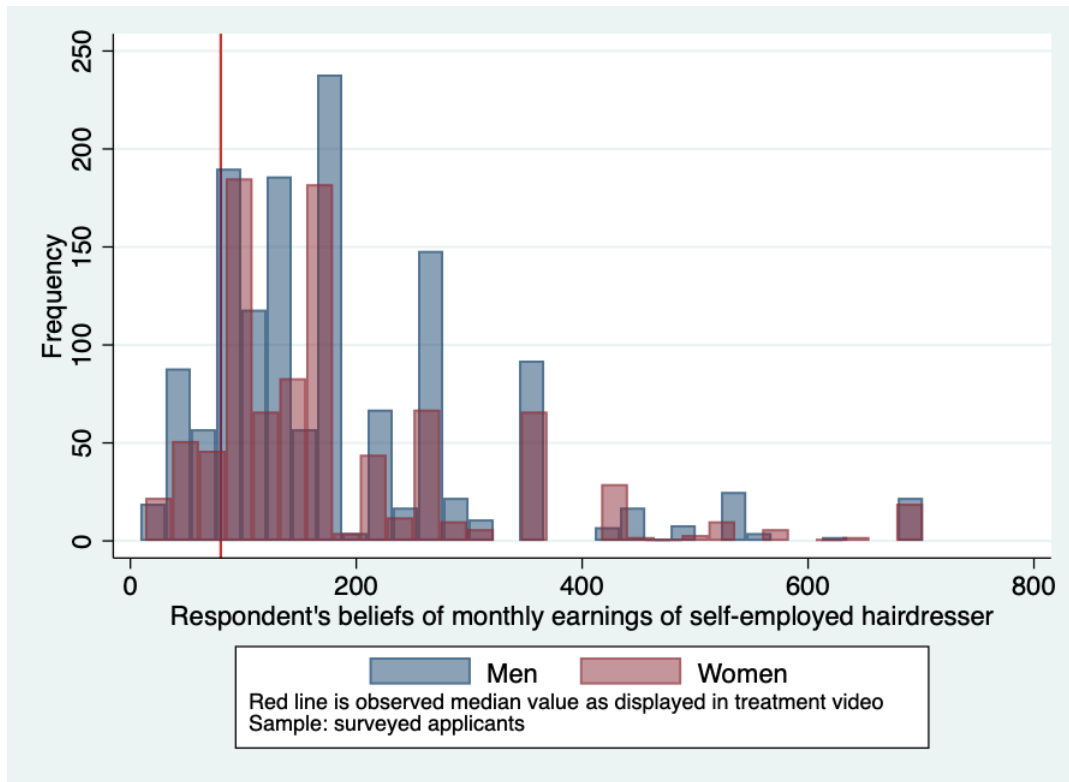
**Figure A 2: Control group beliefs regarding earnings of self-employed automechanics**



**Figure A 3: Control group beliefs regarding earnings of self-employed welder**



**Figure A 4: Control group beliefs regarding earnings of self-employed hairdresser**



**Figure A 5: Control group beliefs regarding earnings of self-employed tailor**

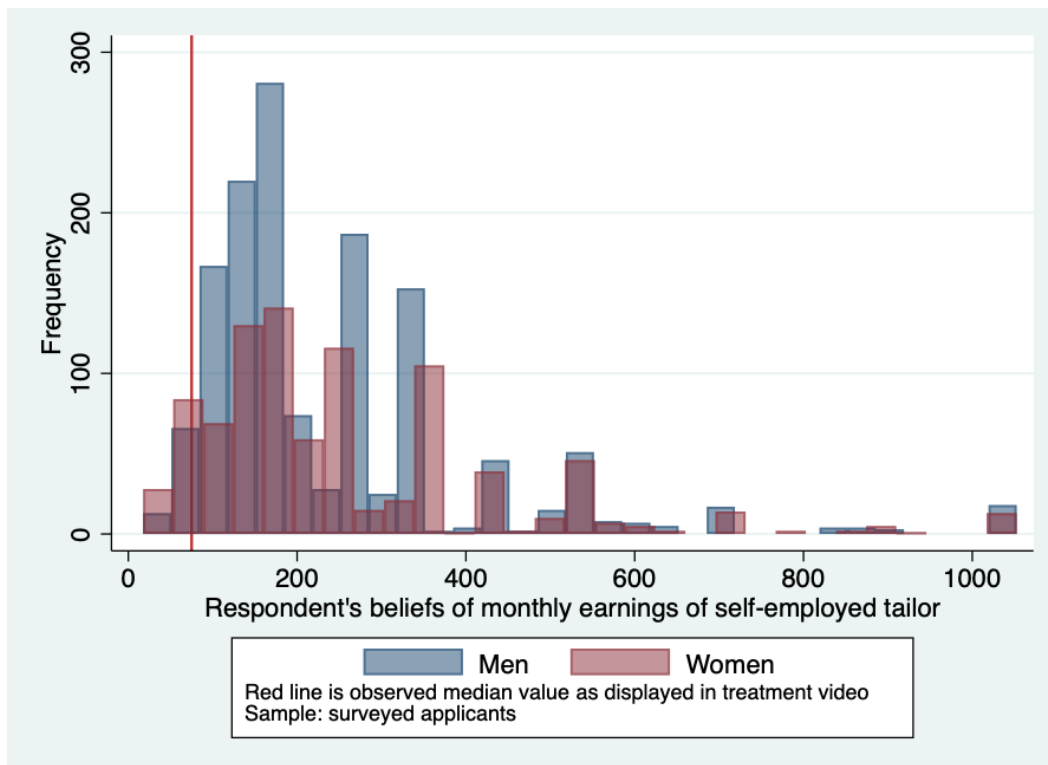


Table A 1: Effect of the information treatment on earnings beliefs, by gender

	All	Men	Women	All - Control mean	Men - Control mean	Women Control mean	P-value of difference (5) & (6)
	(1)	(2)	(3)	(4)	(5)	(6)	
Earnings beliefs in MDT (USD)	-38.69*** (9.632)	-53.26*** (13.27)	-15.97 (12.21)	436.3	474.5	377.9	0.000
Earnings beliefs in non MDT (USD)	-16.33*** (3.665)	-11.79** (4.729)	-23.59*** (5.829)	219.2	215.2	225.4	0.076
Ratio of beliefs of earnings in MDT over earnings in non-MDT	-0.090* (0.052)	-0.185** (0.075)	0.047 (0.076)	2.336	2.568	1.982	0.000
Observations	4394	2666	1728				

Outcome variables are winsorized at the 1%-level. Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants

Table A 2: Impact of the information treatment on specific trade choice

	All		Men		Women		Median earnings displayed in treatment video ('000 FCFA)
	Info	Control mean	Info	Control mean	Info	Control mean	
Topography	0.011*** (0.004)	0.007	0.010** (0.005)	0.009	0.013*** (0.005)	0.003	350
Machine operation	0.019*** (0.005)	0.027	0.024*** (0.009)	0.042	0.009** (0.004)	0.003	300
Air conditioning	0.047*** (0.009)	0.047	0.052*** (0.011)	0.061	0.037*** (0.011)	0.025	200
Construction: finishing	0.008 (0.007)	0.056	0.011 (0.010)	0.07	0.003 (0.008)	0.035	200
Electricity	-0.021* (0.013)	0.184	-0.026 (0.019)	0.254	-0.018 (0.011)	0.077	160
General mechanics/Welding	0.002 (0.010)	0.136	-0.013 (0.015)	0.196	0.023* (0.012)	0.046	150
Pipework	-0.004 (0.005)	0.03	-0.002 (0.007)	0.04	-0.007 (0.005)	0.015	150
Mechanical manufacture	-0.003 (0.002)	0.007	-0.003 (0.003)	0.009	-0.004** (0.002)	0.004	150
Bakery	0.031*** (0.008)	0.045	0.008 (0.005)	0.013	0.070*** (0.018)	0.095	110
Computer graphics	-0.003 (0.005)	0.031	-0.011* (0.007)	0.031	0.008 (0.008)	0.031	110
Auto mechanics	-0.009 (0.008)	0.089	-0.025** (0.012)	0.138	0.012 (0.008)	0.015	110
Carpentry	-0.004 (0.004)	0.019	-0.007 (0.006)	0.028	-0.001 (0.003)	0.005	100
Livestock rearing	-0.001 (0.003)	0.006	-0.001 (0.004)	0.009	-0.002 (0.002)	0.003	100
Hospitality	-0.020** (0.010)	0.114	-0.005 (0.009)	0.049	-0.040** (0.019)	0.213	85
Tree crop farming	-0.011** (0.005)	0.028	-0.006 (0.005)	0.02	-0.021** (0.011)	0.039	82
Hairdressing	-0.006 (0.007)	0.061	0.001 (0.002)	0.004	-0.017 (0.018)	0.148	80
Tailoring	-0.012* (0.007)	0.072	0.002 (0.003)	0.003	-0.029 (0.017)	0.178	75
Housekeeping	- (0.004)	0.028	-0.002 (0.003)	0.009	- (0.009)	0.057	70
Observations	4394		2666		1728		

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants



Table A 3: Effect of the information treatment on trade selection, by gender

	All	Men	Women	All - Control mean	Men - Control mean	Women - Control mean	P-value of (5) - (6)
	(1)	(2)	(3)	(4)	(5)	(6)	
First choice is a MDT	0.037** (0.016)	0.003 (0.012)	0.077*** (0.024)	0.646	0.894	0.267	0.000
First choice is one of the 3 highest-paying trades	0.077*** (0.010)	0.087*** (0.013)	0.057*** (0.012)	0.080	0.112	0.032	0.000
First choice is the highest- paying non-MDT	0.030*** (0.008)	0.007 (0.005)	0.070*** (0.018)	0.045	0.013	0.095	0.000
Observations	4,394	2,666	1,728				

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants

Table A 4: Questions used to build technical knowledge and technical experience dummy variables

***Evaluating technical knowledge***

About electricity: When an electrician measures electrical power, what unit is he using?

About AC maintenance: In an air conditioner, what is the role of the compressor?

About auto mechanics: What is the role of a radiator in a motor vehicle?

About welding: In a general mechanical or welding workshop there is a machine called a lathe. What is it used for?

About carpentry: What is a plane for?

***Evaluating technical experience***

About electricity: Have you ever changed a faulty circuit breaker?

About AC maintenance: Have you ever installed an air conditioner?

About auto mechanics: Have you ever changed the tire on a motor vehicle?

About welding: How do you mount a hacksaw blade?

About carpentry: Have you ever used a plane?

The respondent "has technical knowledge" (variable equal to 1) when she answered at least one of the technical knowledge questions correctly; she "has technical experience" when she answered at least one of the technical experience questions positively.

Table A 5: Heterogeneity on trade choice - demographic characteristics

	First choice is a MDT		First choice is one of the 3 highest-paying trades		First choice is the highest-paying non-male-dominated trade	
	Men	Women	Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Information treatment	0.008 (0.083)	0.096 (0.155)	0.093 (0.106)	0.131* (0.078)	-0.014 (0.024)	0.154 (0.120)
Age	-0.004* (0.002)	-0.012*** (0.004)	0.008*** (0.003)	-0.000 (0.002)	-0.000 (0.001)	-0.002 (0.003)
Info x Age	-0.000 (0.004)	-0.001 (0.007)	-0.000 (0.005)	-0.003 (0.003)	0.001 (0.001)	-0.004 (0.005)
Interaction test (Info+Info*var)	0.921	0.522	0.363	0.0878	0.557	0.193
Information treatment	0.003 (0.012)	0.077*** (0.028)	0.086*** (0.013)	0.055*** (0.014)	0.007 (0.005)	0.075*** (0.019)
Is partnered	-0.030 (0.034)	-0.016 (0.039)	0.015 (0.039)	0.002 (0.015)	0.007 (0.015)	0.036 (0.023)
Info x Partnered	0.020 (0.053)	-0.009 (0.058)	0.017 (0.066)	0.010 (0.031)	-0.001 (0.022)	-0.027 (0.033)
Interaction test (Info+Info*var)	0.667	0.184	0.120	0.020	0.797	0.135
Information treatment	0.006 (0.013)	0.075* (0.040)	0.079*** (0.016)	0.051*** (0.018)	0.009 (0.006)	0.086*** (0.032)
Has a dependent child	-0.022 (0.018)	-0.084** (0.033)	0.013 (0.021)	-0.005 (0.012)	0.006 (0.007)	0.003 (0.022)
Info x Dependent child	-0.007 (0.026)	0.001 (0.048)	0.028 (0.032)	0.010 (0.022)	-0.005 (0.012)	-0.024 (0.041)
Interaction test (Info+Info*var)	0.971	0.010	0.000	0.000	0.686	0.006
Information treatment	-0.003 (0.018)	0.065** (0.027)	0.060*** (0.018)	0.041*** (0.013)	0.003 (0.007)	0.077*** (0.021)
Has attended at least high school	-0.018 (0.015)	0.054* (0.028)	-0.011 (0.015)	0.006 (0.012)	-0.003 (0.006)	0.022 (0.023)

Info x At least high school	0.017 (0.026)	0.030 (0.041)	0.058** (0.027)	0.045* (0.023)	0.007 (0.010)	-0.018 (0.035)
Interaction test (Info+Info*var)	0.415	0.012	0.000	0.000	0.188	0.048
Information treatment	-0.001 (0.024)	0.074** (0.037)	0.086*** (0.026)	0.089*** (0.022)	0.023** (0.011)	0.082*** (0.028)
Has worked in the past 30 days	0.008 (0.020)	-0.020 (0.027)	0.024 (0.019)	0.013 (0.010)	0.005 (0.006)	0.004 (0.018)
Info x Work experience	0.007 (0.028)	0.002 (0.048)	0.002 (0.032)	-0.051** (0.024)	-0.021* (0.012)	-0.019 (0.033)
Interaction test (Info+Info*var)	0.669	0.015	0.000	0.004	0.676	0.003
Control mean	0.894	0.267	0.112	0.032	0.013	0.095
Observations	2,666	1,728	2,666	1,728	2,666	1,728

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants

Having reached a higher level of education (at least high school) translates into greater impact of the information treatment on the share of men and women picking one of the three highest-paying trades. The impact of information on picking such a trade is around twice as large for youth with high school education compared to those without high school education. The probability to pick such a trade is 11.8pp versus 6pp higher for men (high school-educated versus other) and 8.6pp versus 4.1pp higher for women. Regarding work experience, women who have worked in the past 30 days are over two times less impacted by the information treatment compared to women who have not (8.9pp versus 3.8pp). This suggests that women with work experience are firmer in their beliefs than women without work experience. Other socio-demographics are not correlated with the impact of the information treatment.

Table A 6: Heterogeneity on earnings beliefs - demographic characteristics

	Respondent's beliefs of monthly earnings in MDT (USD)		Respondent's beliefs of monthly earnings in non-MDT (USD)		Ratio of beliefs of earnings in MDT over earnings in non-MDT	
	Men	Women	Men	Women	Men	Women
	(1)	(2)	(3)	(4)	(5)	(6)
Information treatment	-189.465** (91.695)	22.017 (86.074)	-0.239 (34.191)	-70.231 (45.954)	-0.662 (0.506)	0.635 (0.536)
Age	0.148 (2.779)	2.796 (2.865)	2.428** (1.022)	-1.295 (1.296)	-0.022 (0.015)	0.028 (0.019)
Info x Age	6.066 (4.183)	-1.643 (3.790)	-0.491 (1.513)	2.010 (1.972)	0.021 (0.022)	-0.025 (0.023)
Interaction test (Info+Info*var)	0.038	0.805	0.982	0.123	0.188	0.236
Information treatment	-53.492*** (13.742)	-19.749 (14.200)	-12.745*** (4.887)	-24.882*** (6.191)	-0.198** (0.078)	0.063 (0.088)
Is partnered	-61.112** (29.357)	-23.572 (22.622)	-10.409 (13.938)	5.002 (12.300)	-0.261 (0.173)	-0.194 (0.130)
Info x Partnered	31.384 (40.588)	15.131 (27.262)	21.310 (21.800)	7.856 (14.093)	0.199 (0.258)	-0.077 (0.137)
Interaction test (Info+Info*var)	0.572	0.847	0.684	0.199	0.997	0.899
Information treatment	-57.695*** (14.849)	-2.579 (19.879)	-9.926* (5.418)	-21.789** (9.623)	-0.239*** (0.088)	0.060 (0.148)
Has a dependent child	3.488 (17.299)	16.749 (20.771)	16.992** (8.542)	10.118 (9.999)	-0.173 (0.110)	-0.092 (0.138)
Info x Dependent child	21.210 (26.377)	-21.248 (26.791)	-4.692 (11.109)	-2.247 (11.945)	0.179 (0.156)	-0.020 (0.168)
Interaction test (Info+Info*var)	0.123	0.155	0.132	0.001	0.654	0.635
Information treatment	-46.471** (18.363)	2.055 (16.156)	-3.248 (6.407)	-17.156** (7.853)	-0.240** (0.098)	0.057 (0.096)
Has attended at least high school	-10.478 (17.057)	46.619** (20.719)	6.273 (6.692)	17.629** (8.825)	-0.171 (0.105)	-0.005 (0.115)
Info x At least high school	-10.305	-48.450	-17.574*	-15.708	0.120	-0.028

	(26.216)	(31.550)	(9.527)	(12.747)	(0.143)	(0.187)
Interaction test (Info+Info*var)	0.003	0.062	0.003	0.001	0.274	0.846
Information treatment	-51.532**	30.394	-17.174*	-14.617	-0.071	0.165
	(20.708)	(22.663)	(8.915)	(10.843)	(0.159)	(0.130)
Has worked in the past 30 days	19.799	34.401*	2.488	3.739	0.098	0.149
	(19.214)	(18.823)	(8.795)	(10.265)	(0.117)	(0.097)
Info x Work experience	0.526	-75.075**	7.685	-13.791	-0.149	-0.188
	(24.283)	(29.893)	(10.439)	(13.273)	(0.179)	(0.158)
Interaction test (Info+Info*var)	0.001	0.008	0.087	0.000	0.010	0.799
Control mean	474.402	377.531	215.087	225.198	2.568	1.982
Observations	2,666	1,728	2,666	1,728	2,666	1,728

Outcome variables are winsorized at the 1%-level.

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants

Table A 7: Characteristics of surveyed participants sample

	Control (1)	Treatment (2)	P-value (1)-(2)	Male (3)	Female (4)	P-value (3)-(4)
Age	22.895	22.832	0.683	22.702	23.142	0.005***
Woman	0.378	0.363	0.517			
Married or in a committed relationship	0.094	0.103	0.565	0.055	0.172	0.000***
Attended at least high school	0.325	0.344	0.416	0.375	0.265	0.000***
Lives with his/her parents	0.419	0.453	0.154	0.426	0.450	0.345
Household head	0.192	0.173	0.308	0.245	0.078	0.000***
At least one dependent child	0.356	0.325	0.189	0.210	0.565	0.000***
Brazzaville	1.557	1.532	0.308	1.56	1.52	0.113
Age at first sexual relation	15.826	15.798	0.904	15.392	16.526	0.000***
Score at digit sequence	3.147	3.247	0.072*	3.187	3.206	0.746
Score at Raven matrices	9.223	8.959	0.090*	9.368	8.641	0.000***
Has technical knowledge	0.768	0.78	0.555	0.885	0.584	0.000***
Has technical experience	0.449	0.467	0.461	0.662	0.11	0.000***
Has worked in the past 7 days	0.605	0.597	0.739	0.63	0.552	0.001***
Has worked in the past 30 days	0.726	0.707	0.386	0.765	0.636	0.000***
Has worked in the past 6 months	0.919	0.909	0.439	0.933	0.882	0.000***
Ability to make his/her own decisions [0-30]	22.671	22.711	0.861	22.937	22.271	0.004***
Perception of women's ability to make their own decisions [0-30]	23.277	23.503	0.395	23.215	23.67	0.098*
Believe women earn less in MDT [0-3]	0.709	0.717	0.851	0.762	0.63	0.002***
Believe women earn less in non-MDT [0-3]	0.199	0.235	0.105	0.212	0.223	0.619
Household wealth condition (score )	0.449	0.502	0.03**	0.468	0.485	0.492
Knows someone who works in a MDT	0.724	0.737	0.54	0.796	0.619	0.000***
Knows somebody within the community who practices the selected trade	0.727	0.767	0.06*	0.778	0.692	0.000***
Has a male role model	0.495	0.506	0.661	0.688	0.182	0.000***
Observations	891	799		1063	627	

Note: \* p<0.1, \*\* p<0.05, \*\*\* p<0.01. MDT: male-dominated trade.

Table A 8: Impact of the information treatment on training outcomes, by gender

	All	Men	Women	All Control mean	Men Control mean	Women Control mean	P-value of difference (5) & (6)
	(1)	(2)	(3)	(4)	(5)	(6)	
Participant's attendance rate during training	-0.001 (0.016)	-0.010 (0.024)	0.008 (0.025)	0.601	0.618	0.574	0.077
Participant completed training and was placed in an internship	-0.027* (0.014)	-0.045* (0.024)	0.004 (0.022)	0.828	0.841	0.807	0.192
Participant graduated from the program	-0.005 (0.021)	-0.012 (0.032)	0.015 (0.025)	0.533	0.542	0.516	0.448
Observations	1,686	1,059	627				

Robust standard errors in parentheses, clustered by training centers.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Training centers, raven score, digit score, household has a high number of assets, knows somebody within her community who practices the trade selected as first choice

Sample: All applicants invited to participate in a training



Table A 9: Impact of the information treatment on trade choice – two choices

	At least one of the applicant's two choices is a male-dominated trade	First or second choice is one of the 3 highest-paying trades	First or second choice is the highest-paying non-male-dominated trade
	(1)	(2)	(3)
Woman	-0.542*** (0.020)	-0.283*** (0.019)	0.254*** (0.019)
Information treatment	-0.005 (0.009)	0.111*** (0.018)	0.021** (0.010)
Woman x Information treatment	0.084*** (0.027)	0.000 (0.024)	0.023 (0.025)
Control mean (men)	0.947	0.356	0.044
p-value test: Woman+Woman*Info	0.000	0.000	0.000
p-value test: Info+Info*Woman	0.003	0.000	0.070
Observations	4,394	4,394	4,394
R-squared	0.326	0.150	0.134

Robust standard errors in parentheses, clustered by place (application centers) and time (half-day) of application.

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Controls: Application centers, Raven score and whether the applicant lives with his/her parents

Sample: Surveyed applicants