How publicly targeting by group identities impacts take-up of educational opportunities

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Abstract

I investigate the unintended effects of publicly informing individuals that their selection for a beneficial opportunity, an international training program, is based on their group identity. In a natural field experiment with a Colombian university, I target 4831 students and disclose to some that their invitation was due to their demographics. Disclosure led to a 27% decrease in take-up and a 20% decrease in completion rates. Experimental evidence from 3 online experiments with 1113 students, suggests that identity-based selection triggers image concerns, which in turn reduce participation in the program. These findings offer policy insights for effectively targeting social groups without discouraging their take-up of beneficial opportunities.

Keywords: Diversity, Identity, Stereotype, Information disclosure, Image concerns
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1 Introduction

Institutions and organizations are persistently developing programs to benefit members of different social groups, specially underrepresented or disadvantaged ones (e.g.,

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STEM for women, up-skilling for immigrants, funding for low-income students).[1] To reach their objective audience, such programs generally follow the strategy of publicly emphasizing the identities of the groups they target, as well as their merits or needs.[2] Such a strategy explicitly informs targeted individuals and third parties that the institution is committed to recognize and support them, which aims to increase take-up of the offered opportunity.

However, publicly informing individuals that they are targeted because of their group identities could have unintended consequences. If individuals anticipate negative effects from an opportunity offered to them because of their demographics, strategies of public targeting may backfire. Thus, instead of leveling the playing-field, disclosing information on identity-based selection can reduce program participation. As such, an evaluation of how different targeting strategies impact members of various social groups is crucial to understand how to promote, instead of discourage, take-up of beneficial opportunities.

In this paper, I report the results of a natural field experiment designed to evaluate how disclosing to individuals that they are chosen for an international training program, because of their group identities, impacts their choice to accept the offered opportunity.

I leverage a collaboration partnership between two universities; a university in Colombia (i.e., the local partner) and an internationally recognized American university (i.e., the international partner). The alliance allowed me to offer a training program on behalf of the international partner to students from the Colombian partner university. The program was aimed at developing non-cognitive skills and was offered exclusively to students holding at least one of the following social categories: female, low-middle social class, first generation, rural origins or ethnic minority. These identities had been previously requested by the local partner as those that they were interested in targeting. A total of 4831 students holding at least one of the selected identities received a personalized email inviting them to participate in the training program.

The content of the invitation varies between treatments, as the information about

[1] See Alan and Ertac (2018); Alan et al. (2019); Carlana et al. (2022) for notable examples of educational programs targeting individuals from underrepresented or marginalized social groups. See also Ko and Moffitt (2022) for an overview of the take-up of social benefit and cash transfers.

[2] For instance, opportunities offered to low income students with high grades (see e.g., Dynarski et al. 2021) or for underprivileged students with low grades (see e.g., Carlana and La Ferrara 2024).

selection is either [i] disclosed to the targeted individual and a third party, [ii] privately disclosed only to the target, or [iii] not disclosed. The PUBLIC INFO condition follows the approach generally used by program providers, where targets as well as third parties are informed that the program is offered to specific individuals because of who they are. I contrast this against a NO INFO condition, in which neither targets nor third parties are informed that group identities are part of the selection criteria. This is the main comparison of the field experiment. For completeness, I also run a PRIVATE INFO condition, which informs targets but not third parties about the selection criteria, allowing me to further look into the separate impact of private and public information disclosure.

I focus on two outcome measures of how publicly revealing information on selection affects program participation. At the extensive margin, I assess program *take-up*, and a target is said to take up the program when she completes the registration process after receiving the personalized invitation. At the intensive margin, I assess program *completion*, which occurs when a participant finishes all sessions of the program. The main objective is to identify the behavioral consequences of public targeting, by looking specifically at whether it may negatively affect program participation. I complement this first aim with a series of online experiments, which I conducted to explore the channels that could be driving the behavioral findings.

In total, 1407 invited students (about 30% of the sample) took-up the program and 1066 (22%) completed it. The main finding of the study shows that take-up rates increase by 27% from PUBLIC INFO to NO INFO. Publicly disclosing that a target has been chosen because of her group identity does not appear to motivate individuals to feel recognized and included. Instead, it negatively impacts their willingness to take-up the offered opportunity. Similar effects are found on program completion, as observed by the 20% increase in completion rates from PUBLIC INFO to NO INFO. Further supporting that the widely used strategy of publicly disclosing that selection for an opportunity is identity-based may deter instead of motivate those who are being targeted. In complement to the main result, the comparisons with the PRIVATE INFO treatment show that informing that selection is identity-based still has a negative effect, even if it is not publicly announced but revealed privately to those targeted.

The main finding, that public targeting negatively affects take-up and completion,

is consistently observed across high and low performers (in terms of their GPA). This is also observed for students who belong to one or to multiple of the targeted social groups, as well as when I look at specific identities separately. Thus, suggesting that the observed detrimental effect of public targeting is robust across different settings and identities.

A potential mechanism behind these outcomes is that public targeting by group identities may trigger image concerns (see e.g., Bursztyn and Jensen 2017; Leibbrandt and List 2018; Moffitt 1983). If image concerns arise, those invited may pass on the offered opportunity to avoid the cost such concerns impose. Even if the opportunity is considered valuable and beneficial to them. To test this, I conduct a series of lab-in-the-field experiments with 1113 students from the partner university. I experimentally vary whether participants are informed that selection is identity-based or not. The lab-in-the-field experimental findings augment the field experimental results and provide insights into the mechanisms underlying the reduced levels of take-up. They suggest that a significant share of individuals may prefer to pass on a valuable and beneficial opportunity when the way they were targeted triggers image concerns for them.

The results of my work contribute to a prominent research agenda exploring the determinants of why take-up rates are low when the opportunities offered are advantageous (for a recent review see Bearson and Sunstein 2023). This line of inquiry is at the cross road of academic research and public policy, given the substantial investments from both the public and the private sector into developing socially beneficial programs, which are frequently underutilized due to low take-up rates. Some of the most prominent findings show that on top of structural barriers, e.g. limited time or resources, there are multiple behavioral barriers to the take-up of such opportunities. Example range from limitations in processing information (see e.g., Bhargava and Manoli 2015; Finkelstein and Notowidigdo 2019), aversion to uncertainty (see e.g., Dynarski et al. 2021; Burland et al. 2023), and psychological costs from taking-up potentially stigmatizing opportunities (see e.g., Butera et al. 2022; Moffitt 1983).

Building upon these findings, my work delves into the unintended consequences of a strategy generally employed by program providers— publicly targeting specific social groups. I provide causal evidence that such public targeting can negatively impact take-up rates. Specifically, the results suggest that this form of targeting may be triggering

image concerns, hindering program participation. This strategy consistently affects individuals with different levels of performance as well as individuals belonging to a wide array of social groups. Complementing existing evidence, my study underscores that informing individuals about the beneficial opportunity tied to their group identities may induce image concerns, negatively impacting take-up (see Bursztyn and Jensen 2015, 2017; Bursztyn et al. 2020; DellaVigna et al. 2012, 2017).

The policy implications of the main findings are as follows: while emphasizing identities can be effective in some contexts as a tool of public recognition that showcases organizational commitment (see e.g., Leslie et al. 2016), this does not appear to be universal when extending opportunities.[3] The public targeting of individuals may inadvertently trigger image concerns, dissuading a significant portion from seizing the offered opportunity.

My study proposes a potential solution— the NO INFO condition, which is consistently superior to public targeting. By not disclosing that selection is identity-based, targeted individuals are shielded from the image costs that are likely to prevent program participation. This strategy is effective because it puts the responsibility on program providers to identify eligible individuals before offering the beneficial opportunities, instead of imposing additional costs on potential beneficiaries. Empirical evidence from my study in conjunction with others, as for example Finkelstein and Notowidigdo (2019) and Dynarski et al. (2021), highlights the feasibility of program providers relying on administrative data to identify eligible individuals, eliminating the need for public targeting.[4]

The rest of the paper is organized as follows. In section 2, I describe the setting and experimental design. In section 3, I report the main findings of the study. Section 4 explores potential mechanisms, and section 5 concludes.

[3] A complementary line of research explores the benefits of publicly emphasizing identity biases, as awareness can positively impact behavior and reduce discrimination, see e.g., Bohnet (2016); Pope et al. (2018); Boring and Philippe (2021); Alesina et al. (2024).

[4] Finkelstein and Notowidigdo (2019) studies take-up of food stamp programs and discusses how the enrollment campaign used Medicare records to identify eligible recipients, freeing potential program adopters from the responsibility to prove they were eligible. In Dynarski et al. (2021), researchers used data on applications to free/subsidized lunch in high-school to pre-identify low income students, and then targeted them directly for a college scholarship program. This allowed them to avoid any reference to their social groups in the invitation message.

2 The experiment

2.1 Setting of the study

This project is the result of a collaboration partnership between an American global university (the international partner) and a university from Colombia (the local partner). The local partner is a private university with about 7000 students belonging to a diverse set of social groups and backgrounds (see Cardenas et al. 2021). One of the aims of the collaboration is for the international partner to support students from the local university, who belong to at least one of various social groups. The following categories were proposed by the local partner as the ones to be targeted for the program: female, low-middle social class, first generation, rural origins and ethnic minorities. Students belonging to any of the selected groups were directly offered the opportunity to participate in an international training program. The purpose of the program is to help them develop and strengthen skills to better attain their goals. Also, it provided certifications of completion from the international partner, which are valuable to access future opportunities (see e.g., Athey and Palikot 2024).

A notable aspect of the Colombian setting is that there is a social stratification system assigned by the central government upon households, which follows a six-number ranking. The number assigned to all members of a household increases with the quality of the dwelling and its surroundings. This number is the stratum of a family and follows a cross-subsidized system that determines the price households pay for utility bills: higher prices the higher the position in the 1 to 6 ranking (see e.g., Bogliacino et al. 2018). This has important implications for the socio-demographic composition of the student body at universities, which differs greatly between private and public institutions. Public universities are almost exclusively for low income students because tuition fees are a function of family social strata, which means that those in lower strata pay very little and those in higher strata would pay substantial fees. In private universities there is no price discrimination, but among the private there are two types: elite and non-elite. Private elite universities are mostly for students from high income families, as they charge very high tuition fees (see e.g., Londono-Velez 2022). Private non-elite reach students from all social classes as their prices are intermediate, so their diversity levels are high-

est among the universities in the country. The local partner university is private but not elite, which makes it a great setting to conduct my study.[5]

Selection of eligible participants for the training program. Participation in the program was by invitation only, which were sent exclusively to eligible students. I used administrative data to filter out any student who did not hold at least one of the social categories previously selected. The share of these categories in the student population is as follows: female (55%), rural (24%), middle class (45%), low class (31%), first generation (15%), and ethnic minority (3%).[6] Then, using academic records on grade point average (GPA), I divided chosen students into two groups of high and low performers.[7] As a requirement of the local partner university, invitations to these groups were sent separately in two waves, during the fall and spring semesters of the same academic year (2022-2023). In the first wave (fall of 2022) only students with high GPA were targeted, and in the second wave (spring of 2023) were those with low GPA.

2.2 Features of the training program

The training program is offered as an international opportunity exclusively provided through a partnership between the local university in Colombia and an internationally recognized university abroad. It is a selective program and participation is by invitation only. The training provides a certification to those who complete it, which can be of great value for application to jobs, internships or scholarships (see e.g., Athey and Palikot 2024). The content of the program provides novel insights useful for anyone, irrespective of their current abilities and it is centered around *goal pursuit* and the de-

[5] Universities in Colombia regularly report the average strata of their student population. Recall strata goes from 1 for those with the lowest income to 6 for those most affluent. Private elite universities have an average strata above 4 with the highest case being 5.4, public universities have average strata below 2.5 with the lowest being 1.2. Private non-elite universities have an average strata ranging between 2.5 and 3.5. The partner university reported having an average strata of 3.3. See https://www.universidad.edu.co/de-mayor-a-menor-ies-colombianas-segun-el-estrato-socioeconomico-de-sus-estudiantes/.

[6] It is important to note that after the experiment concluded, the same program was offered to every single student that had not been invited before. Thus, preventing any concerns about exclusion of opportunities to other students.

[7] In Colombia, GPA ranges between 0 and 5.0, where 3.3 is the passing grade and 5.0 is the highest. Students with a GPA of at least 4.0 are in the high performance wave. In the low performance wave, are students with a GPA below 4.0 but above 3.3, as to include everyone who is passing. At no point in the invitation to the program I used the terms "high" or "low" to refer to their performance (see Appendix A for details).

velopment of non-cognitive skills.[8] The topic of the program was curated so that it could be of interest and benefit to participants irrespective of their major, year of study, and other relevant characteristics.[9]

I put together a bundle of attractive features to motivate participation. To reduce participation costs, the invitation is personalized and explicitly states that the student already has a guaranteed slot in the program, thus eliminating uncertainty about eligibility and access to the opportunity. The program is free of charge. It is organized in 9 sessions of about 30 minutes each, all of which are pre-recorded and delivered online.[10] The entire schedule was provided at the beginning of the program, where two sessions would be launched weekly (one on Mondays and one on Thursdays). This allowed participants to visualize their progress and make a personal plan. It also makes progression self-paced and allows for flexible planning. The program had no pre-requisites and was open for participation irrespective of which courses students had taken so far.[11] Finally, there are multiple computer rooms as well as free wifi on campus, solving any impediments to access equipments or the internet.[12]

As for benefits, on top of the knowledge acquired, participants received a completion certificate indicating the program was taught by faculty from an internationally recognized university. The program's name did not include references to any of the targeted social categories to prevent any form of negative signals, if they referenced it in their

[8] I designed the content of the program to closely follow the research presented in Milkman (2021).

[9] Other types of educational programs focus on more specialized *cognitive* abilities, such as coding or advance math (see e.g., Carlana and Fort 2022). Although important, these tend to be most relevant for specific academic majors, while the aim of this program was to reach a wide range of heterogeneous individuals across programs and group identities.

[10] The structure of the training program is similar to that of the so-called Massive Online Open Courses (MOOCs). In all sessions, video lectures are split in two. In between, students have to develop an individual class activity, intended to promote attention and increase engagement.

[11] The main features of the program are informed by key behavioral findings: [i] ensuring placement is motivated by evidence on the psychological value of certainty (see Tversky and Kahneman 1986), [ii] the program is free as individuals perceive free products as more valuable than the same product as a reduced cost (see Shampanier et al. 2007; Burland et al. 2023), [iii] prompting people to make a plan while allowing for a combination of routines (having a schedule) and flexibility (allowing for sessions to be completed within an ample timeframe) is likely to promote completion of the program (see Beshears et al. 2016, 2021).

[12] At the time the first wave of the program was launched in 2022, all COVID 19 restrictions had been lifted up on campus and classes were back in person, which also gave access to computer rooms, etc.

CVs.[13] In addition, there was a lottery of two last-generation iPads among those who completed the program.

By putting together a bundle of low participation costs and both symbolic and material benefits, I aim to control for most common structural and behavioral barriers preventing take-up. This increases the chances of program participation, reducing noise and allowing me to test the effects of public targeting as cleanly as possible.

2.3 Invitation messages

Each chosen student received an invitation email from the Office of International Relations of the local university. Because the Office of International Relations frequently organizes events linked to international institutions, there are no reasons to expect participants to think they are part of a study.[14] All communications were sent to the students' institutional email addresses, as these accounts are regularly used by students to receive information from courses they are enrolled in. Thus, maximizing chances that targeted students would see the invitation message (as it was sent during the academic term).

The email informed targeted students about the partnership agreement between their university and an international university, and explained that as part of this agreement the international partner was offering a training program to help them acquire or further develop their skills to set and achieve goals. The email describes the program, the benefits of participating, and gives information on the *selection criteria*. I vary how this information is disclosed to experimentally manipulate the way individuals were targeted. In the invitation email (see the complete invitation in Appendix A), a randomly chosen set of students received the following message:

[13] Evidence from audit studies shows that strong signals on CVs that a candidate belongs to a stereotyped identity can significantly increase discrimination in the labor market (see e.g., Bertrand and Duflo 2017). So, instead of the standard approach in programs of this type that frequently emphasize the targeted social groups in their titles (e.g., "STEM for women" or "up-skilling for immigrants"), I used a name that made no reference to either abilities or group identities.

[14] The experiment can be classified as a natural field experiment, as participants are not aware they are part of a study (see Harrison and List 2004). The project was approved by the ethics committee at Universidad Autonoma de Bucaramanga (UNAB), the local partner in Colombia. As part of the institutional policies of UNAB, students give written consent that their administrative records can be used and shared with third parties for research purposes. Students have the possibility to remove consent at any moment. At the time of the study, all targeted students had maintained their consent.

> You have been chosen among all students at the university because you can benefit from this program, as your cumulative GPA is [Student's GPA].

The rest received a longer version that includes specific information about selection being based on group identities, as follows:

> You have been chosen among all students at the university because you can benefit from this program, as your cumulative GPA is [Student's GPA], and also because you fulfill one of the following requirements: being a woman, being of low-middle social class, belonging to an ethnic minority (indigenous or afro-descendant), being a first-generation student (neither of your parents has a college degree), or coming from a rural area (or not coming from any of the main cities in the country).

Subjects who received the longer version of the message became privately aware that their group identities played a role in their selection. For those who received the shorter message, the role played by their identities was not disclosed.

Across treatments, the invitation email also informed students that to register to the program, they needed to ask a faculty member to send a message on their behalf, to the program's account, endorsing their participation. This is the channel I used to involve third parties in the targeting process. For this, I provided each student with a pre-defined message endorsers were required to send back. The content of this pre-defined message is part of the experimental variations and follows a similar structure to that of the information already given to the students in the first part of the invitation email. The endorsement message is the following:

> I, [Professor's name] endorse student [Student's name] to take part in the training program..., because he/she can benefit from this program, as his/her cumulative GPA is [Student's GPA].

In addition, for a randomly chosen subset of students among those who had received the longer message in the first part of the invitation, the endorsement message is as follows:

> I, [Professor's name] endorse student [Student's name] to take part in the training program... because he/she can benefit from this program, as his/her cumulative

> GPA is [Student's GPA], and also because he/she fulfills at least one of the following requirements: being a woman, being of low-middle social class, belonging to an ethnic minority (indigenous or afro-descendant), being a first-generation student (neither of his/her parents has a college degree), or coming from a rural area (or not coming from any of the main cities in the country).

All students needed an endorsement to register to the program, but only a subset had to reveal to the third-party endorser that their demographics were part of the selection criteria.

I focus on two outcome measures. At the extensive margin, I look at take-up rates (i.e., invited participants register by providing the endorsement from the third party). At the intensive margin, I look at completion rates (i.e., invited participants complete all 9 sessions of the program).[15]

A notable feature of the invitations is that, as a requirement of the partner university, the GPA of the selected students is displayed. On the one hand, this allows me to explore the impact of public targeting on individuals who could perceive their invitation as a reward for their merit (i.e., high GPA) or as a remedial strategy to overcome their needs (i.e., low GPA). On the other hand, it limits the comparability between the two waves of the study. Because of this, I do not compare high and low GPA students in the analysis of the experiment and focus exclusively on treatment differences within each wave.

2.4 Treatments

I designed three experimental treatments varying whether the eligibility criteria is disclosed to the targeted individual and to a third party, to the target only, or to none of them. The aim is to tests how these variations in information disclosure impact take-up and completion rates. I run the field experiment in two separate waves, and in each I

[15] Note that the term *take-up* generally refers to someone receiving a benefit for which he/she is eligible (Bearson and Sunstein 2023). For the case of a 9-session training program this definition is not as fitting, as it is unclear how many steps quality as "receiving the program". Instead, I will use take-up as a measure of a student completing the registration process that allows her to participate in the training. In the same line, the term *completion* may be used in other programs as participating in a certain number of steps (e.g., completing more than 50% or 75% of all sessions). Given that benefits like the certification or the lottery are linked to going through all sessions, I will use completion as a measure of a student finishing the entire program.

target students with different levels of *academic performance*. Table 1 summarizes the features of each treatment as well as the number of individuals invited in each wave.

Table 1 Experimental treatments

The table summarizes how information about the selection criteria was disclosed by treatment (top). It also reports the sample sizes, by treatment for each wave of the study (bottom).

	Treatments		
	PUBLIC INFO	PRIVATE INFO	NO INFO
Information is disclosed			
To student	✓	✓	×
To endorser	✓	×	×
Invitations per wave			
High performance	n=864	n=864	n=833
Low performance	n=776	n=757	n=737

Next, I explain in detail the treatment variations, which were implemented in the same way across the two waves of the study.

PUBLIC INFO: targeted students are informed they are invited because of their demographic characteristics (group identities). Similarly, the third-party endorsers receive information that selection was based on demographics, through the pre-defined endorsement message.

PRIVATE INFO: targeted students are informed they are invited because of their demographics, as with PUBLIC INFO. But, the third-party endorsers do not receive any information of selection being based on group identities.

NO INFO: targeted students are also selected because of their demographics, the same as with PUBLIC INFO and PRIVATE INFO, but neither the students nor the endorsers are informed of this. All information provided avoids disclosing that selection is based on group identities.

2.5 Sample

A total of 4831 students received the email inviting them to participate in the program, during the 2022-2023 academic year. 2561 were in the *high* performance group and were invited at the beginning of the fall semester. 2270 had *low* performance and were invited at the beginning of the spring semester. For each wave of the program, I assigned individuals into treatments through block randomization, balancing the categories se-

Table 2 Sample balance across experimental conditions

Columns I-III and V-VII report the average frequency of each social category in the targeted sample, with standard errors in parentheses, for the PUBLIC INFO, PRIVATE INFO, and NO INFO conditions. Columns IV and VIII report the p-values for the Anova test that the means are equal in the three treatments, for the high and low performance group, respectively.

	High Performance				**Low Performance**			
	PUBLIC INFO	PRIVATE INFO	NO INFO	p-value	PUBLIC INFO	PRIVATE INFO	NO INFO	p-value
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
Female	0.69	0.68	0.66	0.43	0.62	0.62	0.58	0.18
	(0.46)	(0.46)	(0.47)		(0.48)	(0.48)	(0.49)	
Rural origins	0.34	0.38	0.38	0.22	0.29	0.29	0.33	0.12
	(0.47)	(0.48)	(0.48)		(0.45)	(0.45)	(0.47)	
Low-middle class	0.92	0.92	0.92	0.81	0.87	0.90	0.90	0.21
	(0.26)	(0.26)	(0.27)		(0.32)	(0.29)	(0.29)	
First generation	0.14	0.15	0.16	0.52	0.12	0.12	0.14	0.47
	(0.35)	(0.36)	(0.37)		(0.33)	(0.33)	(0.35)	
Ethnic minority	0.02	0.02	0.02	0.78	0.03	0.02	0.03	0.79
	(0.15)	(0.15)	(0.14)		(0.17)	(0.16)	(0.18)	
Observations	864	864	833		776	757	737	

lected for targeting: female, low-middle social class, rural origins, first generation and ethnic minority (see Table 2). Those invited had two weeks to complete their registration (take-up) to the program. Then, once the program started, two sessions of the program were launched each week. Those registered had 5 weeks to finish all 9 sessions of the program (completion).

3 Results

In this section, I present the main results of the field experiment and show how disclosing information about selection affects participation in the training program. Results on take-up rates and completion rates are based on proportion tests, for which I report two-sided p-values in the main text. In complement, In Appendix B, I report regression outputs estimating the linear probability of take-up/completion while controlling for the different social categories.

3.1 Program participation

First, I report results on the general effect of information disclosure on program participation, pooling the two waves of the program together. The aim of this analysis is to assess how the different targeting strategies affect program take-up (extensive margin), as it is the most immediate outcome after the invitation is sent. As a second measure, I also evaluate the impact of targeting on completion (intensive margin): finishing all sessions of the program (unconditional on take-up).

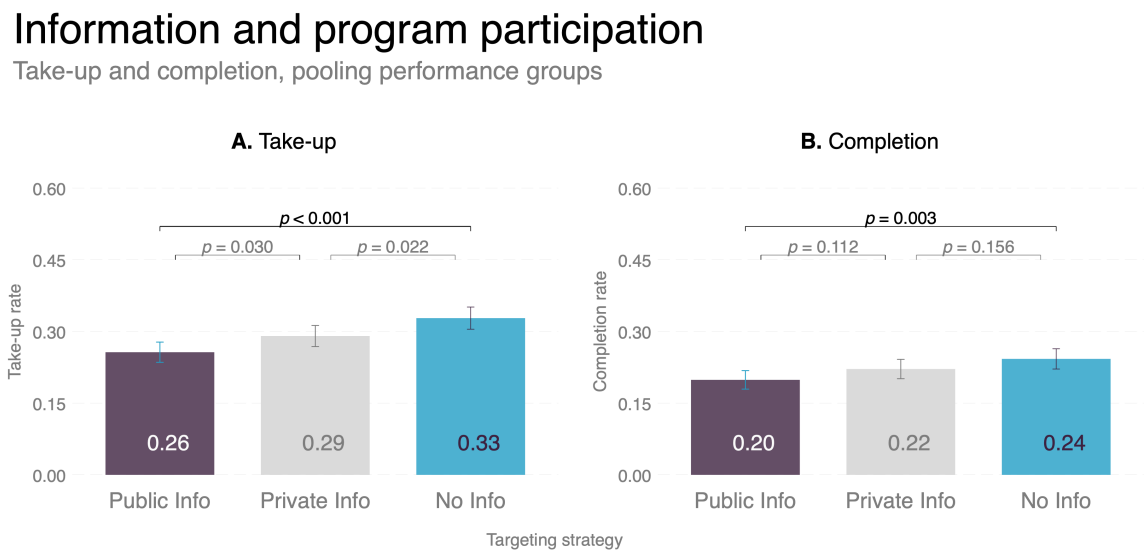

Figure 1 Take-up and completion rates by information condition.

The figure pools together high and low performance groups to illustrate the main effects of how variations in information disclosure impact take-up (Panel A) and completion (Panel B). Values inside the bars display average rates of take-up/completion. The p-values report the significance of two-sided proportion tests comparing information conditions.

The main result of the study suggests that public targeting has a negative and significant impact on take-up and completion rates, when compared to a strategy that avoids disclosing information about the selection criteria. As illustrated in Figure 1.A, take-up rates are 26% in PUBLIC INFO and they significantly increase to 33% in NO INFO ($p < 0.001$), when both targets and third parties are blind to identities being criteria for selection.[16] Moreover, as shown in Figure 1.B, the effect is also observed for completion

[16] Ko and Moffitt (2022) shows take-up rates for multiple beneficial opportunities circle around 40% or below. In an educational intervention offering STEM training (coding) for girls in schools, Carlana and Fort (2022) reports that about 16% of the eligible students took-up the program. In relation to these, the average take-up rate of 29% for the training program offered in my study is within the expected range for such an opportunity.

rates, which go from 20% in PUBLIC INFO to 24% in NO INFO (p = 0.003).[17] Note from the comparison to the PRIVATE INFO condition, that the negative impact on take-up and completion appears to be associated to information being disclosed to the target as well as to the third-party. I summarize the main finding in Result 1 below:

Result 1 *Publicly informing individuals that they are chosen for a training program because of their demographics has a negative impact on take-up and completion rates, compared to a setting where this information is not disclosed.*

Next, I test the effect of information disclosure separately for high and low performers.

3.2 Program participation by performance group

I conducted the field experiment in two waves that separately targeted high and low performing students. High performers may perceive their invitation as a reward for their merits, while low performers as a remedial strategy given their needs. In this section, I evaluate the effect of public targeting for each performance group.

Figure 2 illustrates the effects of the different targeting strategies on the high performance group (Panel A) and the low performance group (Panel B), and confirms that the negative impact of public targeting is present in both waves of the program. For high performers, take-up rates increase by 21% (7 p.p.) from PUBLIC INFO to NO INFO (p = 0.001), while completion increases qualitatively by 11% (p = 0.121). A similar pattern is observed for the low performance group, as take-up rates increase by 44% (7 p.p.) from PUBLIC INFO to NO INFO (p < 0.001), and completion rates by 42% (p = 0.003).[18] This suggests that the detrimental effects of publicly disclosing that selection is identity-based are robust to settings where opportunities could be perceived as either rewards

[17] The main results are consistent also when controlling for the group identities of the targeted individuals, as reported in the regression outputs in Table B-1 in Appendix B.

[18] In Appendix B, I report results from a regression showing that NO INFO is superior to PUBLIC INFO both for High performers (see Table B-2) as well as for Low performers (see Table B-3), even when controlling for the group identities of those targeted.

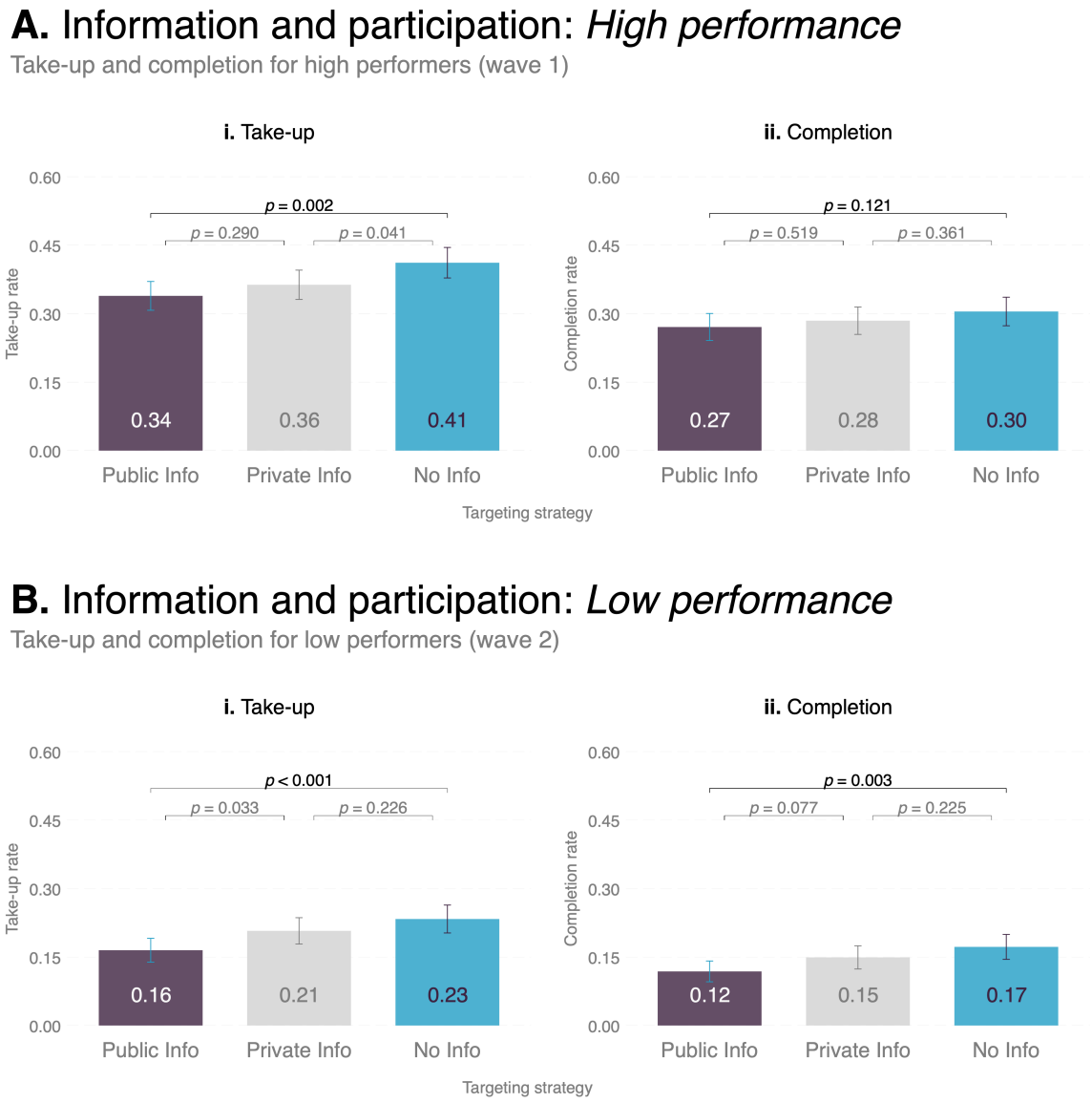

Figure 2 Take-up and completion rates for high and low performance groups.

The figure illustrates how variations in information disclosure impact take-up and completion, separately for the high (Panel A) and low (Panel B) performance groups. Values inside the bars display average rates of take-up/completion. The p-values report the significance of two-sided proportion tests comparing information conditions.

or remedies.[19]

As for the comparison of the main treatments to the PRIVATE INFO condition, Figure

[19] In my setting, the negative effect of public targeting is present for each performance group (i.e., in each wave of the study). However, it is plausible that low GPA students would experience some additional negative effect, independent of that of public targeting, as their needs are being made explicit. The notable gap in take-up with respect to high GPA, even in the NO INFO treatment (23% vs. 41%, $p < 0.001$) suggests that low-grade image concerns can be very powerful and should be taken into account when offering remedial programs.

2 illustrates that both private and public information affect program participation, although the differences are in some cases not statistically significant. Together these results indicate that when targeting individuals for certain opportunities, explicit and public communication about the role of identities in the selection process can discourage participation for both high and low performers. I summarize this in the following result:

Result 2 *Publicly informing individuals that they are chosen for a training program because of their demographics has a negative impact on take-up and completion rates for both low and high performance targets, compared to a setting where this information is not disclosed.*

3.3 Program participation by identity profiles

Next, I report how public targeting impacts individuals with different identity profiles. First, I compare how information disclosure impact those holding a single or multiple of the targeted identities. Then, I look at how it separately impacts some of the specific identities targeted (i.e., female, low-middle class and rural origins).

The distribution of identity profiles in the study is as follows: 34.2% hold a single identity and 65.8% hold multiple identities.[20] Figure 3 illustrates the effects of the different targeting strategies for those holding a single identity (Panel A) and those holding multiple identities (Panel B). I find a consistently negative effect of information disclosure on take-up (see Appendix B for additional analysis on the different identity profiles).[21]

I also evaluate how the different group identities targeted in the invitation message respond to the information about selection. As reported in Table 2, approximately 65% of the program's targeted individuals are females, 34% come from rural areas, 46% belong to the middle class, and 32% are low class, while the representation of first-

[20] Specifically, 40.5% held two, 21.5% held three, 3.71% held four, and 0.09% five. The distribution of identity profiles was balanced between treatments in both the first wave with high performers (p = 0.321, ANOVA test) and the second wave with low performers (p = 0.657, ANOVA test).

[21] In Appendix B, I report results from a linear probability regression providing evidence that not disclosing that selection was identity-based helps with take-up rates. Similar results are also reported for completion rates.

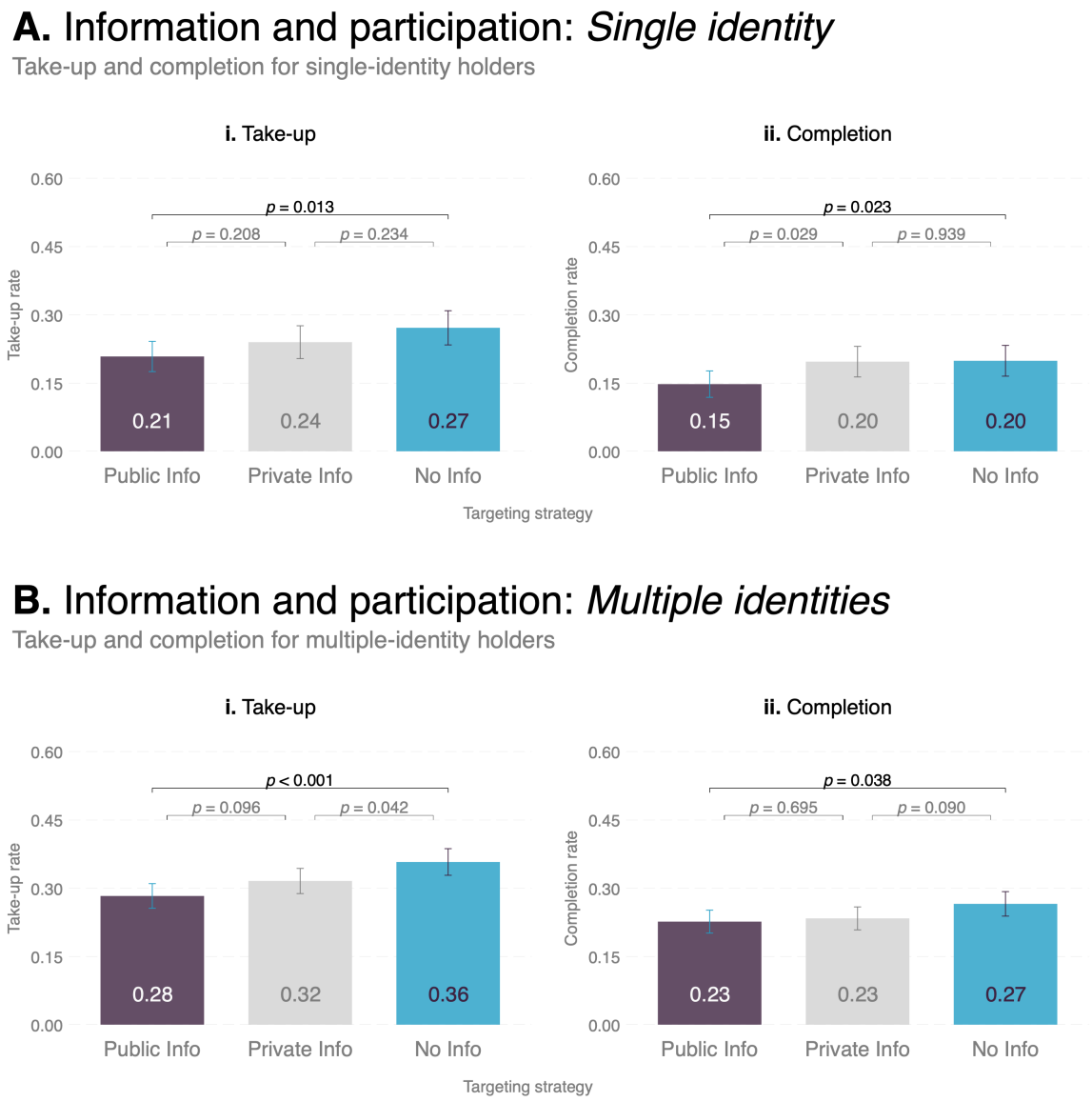

Figure 3 Take-up and completion rates by number of identities.

The figure illustrates how variations in information disclosure impact take-up, separately for the individuals holding a single targeted identity (Panel A) or multiple identities (Panel B). Values inside the bars display average rates of take-up/completion. The p-values report the significance of two-sided proportion tests comparing information conditions.

generation students is limited to 15%, and ethnic minorities constitute only around 3%. My focus here is on those identities for which I can report meaningful results: female, low-middle class and rural (see Appendix B for details on each social group targeted). Figure 4 illustrates that across different social groups, the negative effect of public targeting is present, reducing take-up rates for females (37% vs. $28\%, p < 0.001$), low-middle social class (34% vs. $27\%, p < 0.001$), and rural origins (30% vs. $24\%, p < 0.001$). Similar effects are observed also for completion rates. The findings on identities

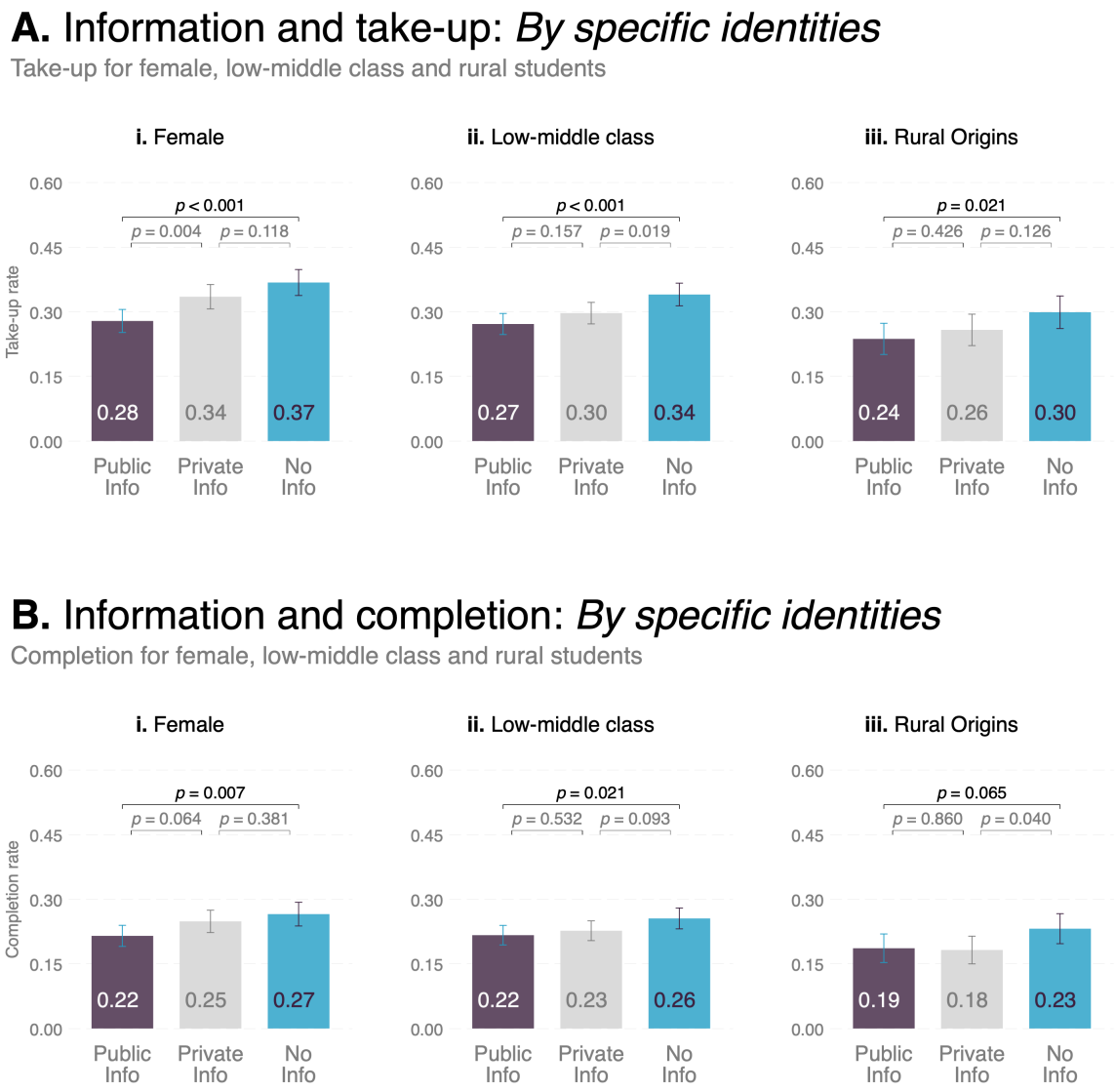

Figure 4 Take-up and completion rates by specific identities.

The figure illustrates how variations in information disclosure impact take-up (Panel A) and completion (Panel B), separately for the individuals holding one of the targeted identities: females, low-middle class, or rural origins. Values inside the bars display average rates of take-up/completion. The p-values report the significance of two-sided proportion tests comparing information conditions.

are summarized in the following result:

Result 3 *Publicly informing individuals that they are chosen for a training program because of their demographics has a negative impact on take-up irrespective of the number of identities students hold or the specific social groups they belong to.*

3.4 Program completion: steps

To close this result section, I look in more detail at the effect of public targeting across the entire training program, by combining take-up and completion into a single metric on the number of steps in the nine-session program. Steps go from 1 to 10, where take-up (registration) is step 1 and the 9^{th} session is step 10. Figure 5 displays step progression, unconditional on take-up in Panel A and conditional on it in Panel B. Results for this section are derived from a regression analysis (see Appendix B).

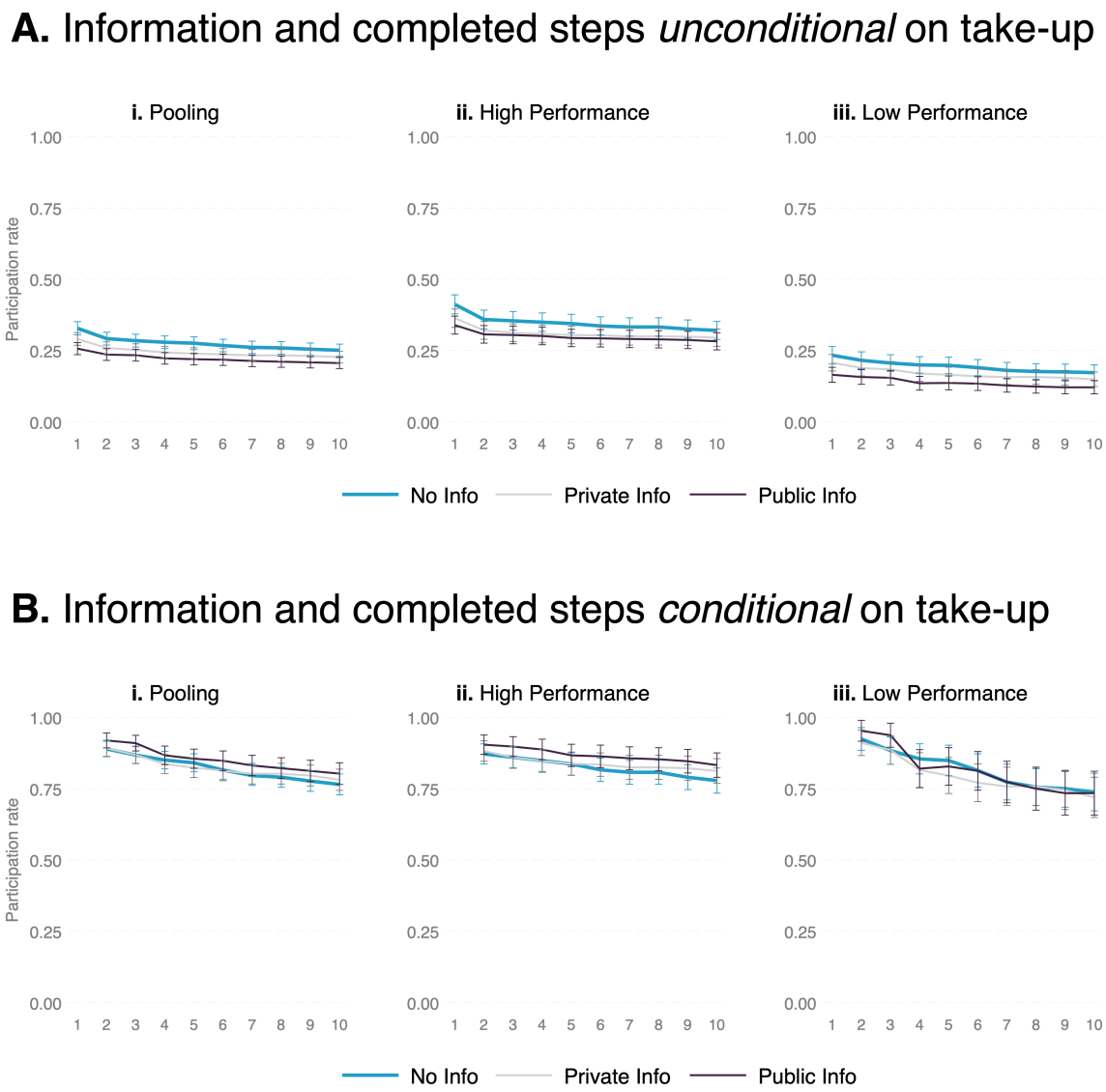

Figure 5 Number of steps completed in the program.

The figure illustrates how variations in information disclosure impact the rate of completed steps in the program, unconditional on take-up (Panel A) and conditional on it (Panel B).

Participants in NO INFO complete an average of 2.75 steps, surpassing the 2.23 steps in PUBLIC INFO ($p < 0.001$). This underscores the consistency between the number of completed steps and the binary measures of take-up and completion used before. Once I condition on take-up (i.e., Step 1), there are no additional treatment effects on the number of steps completed: 8.67 out of 9 steps in NO INFO and 8.39 in PUBLIC INFO ($p = 0.156$).[22] This suggests that those who overcome the negative effect of public targeting and end-up participating in the program, are also likely to come back to all sessions and successfully complete it. I summarize this in the following result:

Result 4 *Publicly informing individuals that they are chosen for a training program because of their demographics has a negative impact on the average number of completed steps unconditional on take-up, while there are no differential effects between targeting strategies once participants take-up the program.*

In conclusion, the main analysis shows that a strategy of explicitly informing individuals that they are offered a beneficial opportunity because of who they are (i.e., their group identities) can backfire, despite the well intended motivations driving it: showing organizational commitment towards those targeted. This negative effect is observed for cases where programs are aimed at rewarding the best performers, as well as when the program can be perceived as remedial to the needs of low performers. In both cases, information disclosure can limit take-up and completion rates. The results also show that there are no differences in completion for those who succeed in overcoming the barriers that public targeting poses on take-up, compared to the case where information is not disclosed. This suggests that addressing the negative impact of public targeting on take-up could greatly benefit program completion.

In the next section, I explore some potential mechanisms that could be driving the effects of public targeting.

[22] Similar outcomes are observed when examining each performance group separately (see Tables B-2 and B-3 in Appendix B). For high performers, the steps go from 2.99 in PUBLIC INFO to 3.47 in NO INFO ($p = 0.022$), unconditional on take-up, and are on average 8.81 and 8.42 respectively when conditional ($p = 0.106$). For low performers it goes from 1.38 in PUBLIC INFO to 1.95 in NO INFO ($p = 0.002$), unconditional on take-up, and average on 8.34 in both cases when conditional ($p = 0.967$).

4 Potential mechanisms

The main aim of the study has been to identify whether there is a negative impact of public targeting on participation in an international training program. The results from the natural field experiment provide causal evidence that publicly informing individuals that they have been selected for a beneficial opportunity because of their demographics significantly reduces take-up. Yet, while the field experiment is able to measure such effects, alone it cannot reveal the mechanisms responsible for the observed effects. In this section, I explore some potential channels that could be driving the behavioral patterns observed in the field experiment. I focus on three main channels that could explain the decrease in take-up rates: perceived benefits from the course, anticipated retaliation from endorsers, and costs derived from image concerns. For this, I conducted three complementary lab-in-the-field experiments with students from the local university.[23]

Across experiments, the main setup is the same: Participants received information about the collaboration alliance between the local and the international partner universities, about the training program and were presented with the message they would receive if invited to the program. I randomly assigned participants to either a NO INFO or an INFO condition. In the INFO condition, the invitation included the section of the message disclosing that selection is identity-based, while in NO INFO this was omitted. Then, I asked participants to respond to additional questions, which vary between studies.

The main difference between experiments is the focus on specific outcome measures that tackle each of the mechanisms mentioned above, which is explained separately for each study in the following sections.

4.1 Perceived benefits from the program

Informing individuals that their selection to the program is because of their group identities may affect their beliefs about the value and benefits they expect from the program. That is, targets may believe that a program offered to certain social groups may be of

[23] These experiments were pre-registered in the AEA RCT registry AEARCTR-0014285, CODE2 and CODE3.

low quality or value, which would negatively impact take-up (see e.g., Cronin et al. 2024; Roth et al. 2024).[24]

To explore this mechanism, I conducted an online experiment with 401 students at the local partner university. The main outcome measure of this experiment is their rating of how much value, utility or benefit the training program would have for them (for details see Appendix D.2).

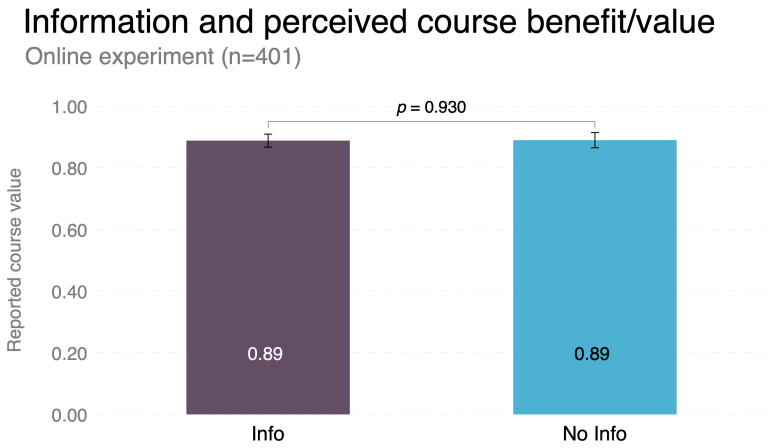

Figure 6 Perceived benefit of the training program by information condition.
The figure illustrates the reported benefits participants anticipate to get if they were offered the training program, normalized between 0 and 1, by information treatment.

Figure 6 illustrates the results from the online experiment. Two elements become evident from the data: (i) students assign high value and expect high benefits from taking the training program if offered to them, and (ii) there are no differences in perceived benefit between INFO and NO INFO (88% vs. 89%, p=0.897). This suggests that disclosing that selection is based on identities is not impacting the perceived value and benefits of the program, which makes it an unlikely mechanism for the observed take-up rates.[25] This is summarized in the result below:

Result 5 *Informing individuals that they are chosen for a training program because of their demographics does not have an effect on the value or benefit they expect to perceive from taking up the offered opportunity.*

[24] In Appendix C, I report the outcomes from the actual evaluations of the training program, completed by 1063 of the 1066 students that finished all sessions. Consistent with the anticipated benefits from those in the experiment, the program was evaluated very high across information conditions.

[25] I also elicit beliefs about the actual evaluation of the program for different social groups (incentivized) and find that participants in the experiment expect program-takers to evaluate the program very high. This is reported in Appendix D.2.

4.2 Anticipated retaliation from endorsers

A feature of my experimental design requires participants to obtain an endorsement from a faculty member at the local university. If targeted participants anticipate negative reactions from faculty endorsers, once they explicitly indicate to them that they are targeted because of their group identities, program take-up could drop. Even though selection of faculty endorsers was endogenous, so that participants could request the endorsement from someone they trust. It is possible that they believe (even if incorrectly) that they will not receive an endorsement, that the faculty member would judge them for having been invited to the program because of their group identities, or even that the endorser would start treating them in a detrimental way after they requested an endorsement that made explicit their group identities. I test for these dimensions of anticipated retaliation from the endorser in an online experiment with 315 students (for details see Appendix D.3).

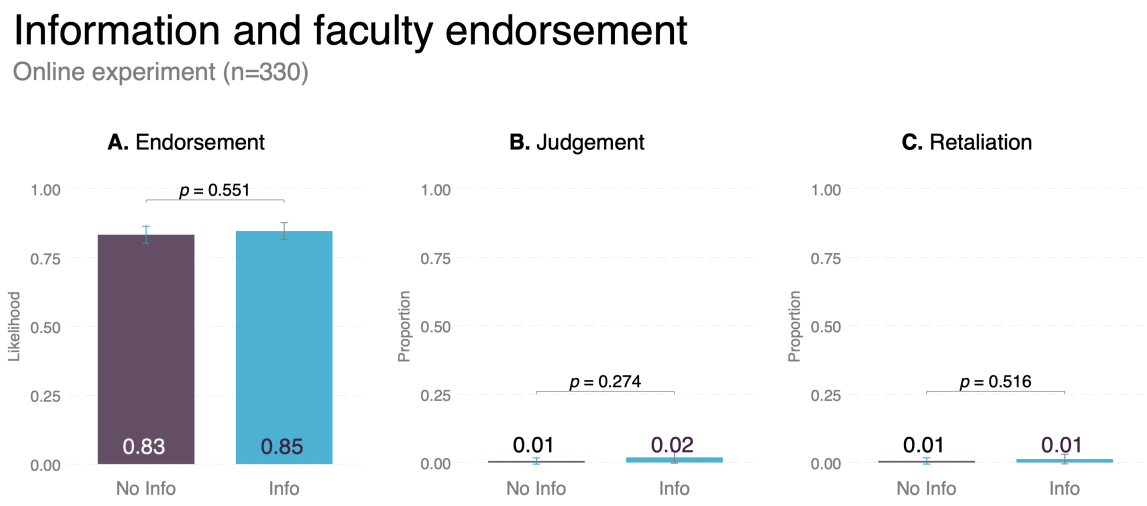

Figure 7 Expected behavior from endorser.

The figure illustrates the beliefs on the likelihood to receive the endorsement (Panel A), the anticipation that the endorser would judge the requester (Panel B) or would treat them negatively after the request (Panel C), by information treatment.

Figure 7 illustrates the main findings from the experiment. In Panel A, I report the beliefs about the likelihood of receiving the requested endorsement. Across conditions participants indicate that they expect to receive the endorsement with more than 80%

chance, and this is not different between conditions (p = 0.718).[26] Panel B shows that only 4 people out of 330 (0.012%) reported that their endorser would judge them negatively for accepting the invitation. Similarly, Panel C reports that 0.009% (3 out of 330) would expect the faculty member to change the way they treat them and act more negatively towards them. But, in none of these cases this is due to the information disclosed in the endorsement message (p = 0.516). Instead, it appears to be an anticipation of simply requesting an endorsement.

This suggests that requesting an endorsement that discloses the group identities of the participants, and that makes it explicit that selection is based on their social categories, does not lead to anticipating that the faculty endorser would retaliate against the requester, as reported in the following result:

Result 6 *Requesting an endorsement that makes explicit that individuals are chosen for a training program because of their demographics does not have an effect on the beliefs about the likelihood of receiving the endorsement or about the perceptions of the endorser towards the requester.*

4.3 Costs associated to image concerns

Public targeting individuals by their group identities may impose image costs that could prevent them from taking up the offered opportunity. This effect could arise because the disclosure of information affects potential participants through different dimensions, such as anticipated judgement from others, stereotype threat, or pity. For instance, participants may expect that others would discriminate them if they find out that their place in the program was assigned because of their group identities (see e.g., Goldin and Rouse 2000; Bertrand and Mullainathan 2004; List 2004). Similarly, participants could perceive the invitation as an attack or an offense that threatens them if they considered they are being stereotyped by the offer (see e.g., Steele and Aronson 1995; Shih et al. 1999, 2006; Fryer et al. 2008). Also, participants may feel that their selection is based on a form of pity or symbolic opportunity to ensure quotas, instead of genuine support towards their social group (see e.g., Leibbrandt and List 2018). If any or all of

[26] The actual rate of endorsement in the field experiment was 97%, which is indistinguishable between treatments, conditional on students having requested it to a faculty member.

the above mentioned channels are triggered, image concerns may arise and negatively impact take-up.

I test for these three dimensions in an experiment with 382 students (for details see Appendix D.4). The three outcome measures evaluate whether image concerns can help explain how information disclosure impacted take-up (see e.g., Bursztyn and Jensen 2017; Moffitt 1983). For this, I elicit beliefs of whether individuals invited to the program perceive their invitation as being a consequence of symbolic support (e.g., pity), whether they feel it is insulting or offensive (stereotype threat), and whether invited participants anticipated to be discriminated or stigmatized by others if they were aware of it (judgement).

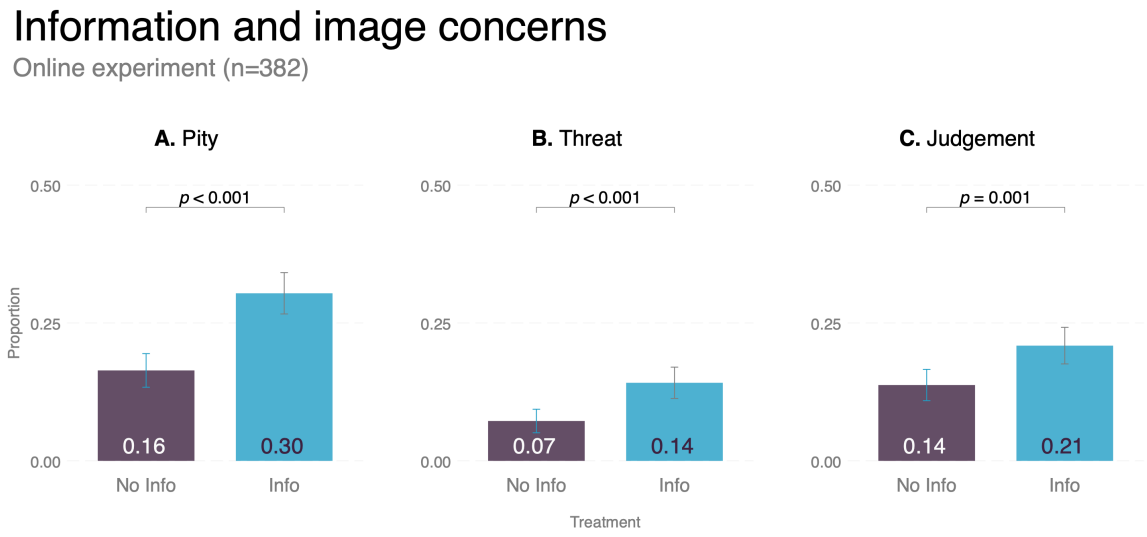

Figure 8 Perceived image concerns of the training program by information condition.
The figure illustrates the reported concerns participants anticipate to experience if they were offered the training program, by information treatment.

Figure 8 illustrates the results from the experiment, showing that respondents believe that an invitation explicitly targeting their group identities would trigger more image concerns than one avoiding this information. This is observed for the case of pity (30% vs. 16%, $p < 0.001$), stereotype threat (14% vs. 7%, $p < 0.001$), and judgement (14% vs. 21%, $p = 0.001$),[27] as summarized in the following result:

Result 7 *Informing individuals that they are chosen for a training program because of*

[27] In the experiment, the elicitation was done separately for three social groups: females, low-middle social class, and rural students. For simplicity in the exposition, I report here a combined measure of the beliefs. In Appendix D.4, I report detailed comparisons for each case.

their demographics triggers image concerns that may negatively impact take-up rates.

5 Conclusions

In this paper, I report the results from a natural field experiment that evaluates how informing individuals that they are invited to an educational program because of the group identities they hold, impacts their take-up and completion of the program. This is motivated by the way institutions and organizations generally make salient the identities of their targeted populations when offering these types of opportunities, as a signal of their commitment to equity and inclusion. I argue that such a strategy may have unintended consequences in some cases, as it could trigger image concerns. To test how different targeting strategies impact targeted populations, I run a field experiment with almost five thousand college students, invite them to take part in an international training program, and experimentally vary how much information is disclosed to them (or others) about selection being based on their group identities.

The main result of this study provides causal evidence that publicly targeting members of different social groups, by emphasizing that an opportunity is offered to them because of who they are, limits their take-up of such opportunity. This information appears to trigger image concerns associated to accepting an offer based on their demographics. To avoid this image cost, invited individuals may pass on the opportunity.

The implications for policy makers become evident when contrasting the results of public targeting to those of the *no-information* condition: to effectively target disadvantaged groups, program providers could use alternative strategies to guarantee eligibility without explicitly priming the identities of those chosen to receive the offered opportunity. For this, program providers can rely on administrative data to identify their targets. This puts the responsibility of ensuring eligibility on those providing the program and not on the potential beneficiaries, making it unnecessary to explicitly signal to individuals (or third parties) that they are being targeted because of their group identities.

By avoiding any reference to the groups people belong to, they are less likely to feel triggered by the invitation and more likely to see how beneficial the opportunity is. This would allow program providers and stakeholders to ensure they are reaching their population of interest and to further their goals of promoting equity and inclusion, without

discouraging their targets from taking up the opportunities offered. This strategy, however, has a potential trade-off as it may not be best suited for program providers that are unable to access administrative data, or who are constrained to make public the groups they target (e.g., because stakeholders require it).

A potential avenue of research to alternatively address this barrier is to evaluate different channels that could further motivate take-up, specially considering that even in the condition without information close to 60% of those invited did not take-up the program. One valuable strategy that has been effective in other settings, is to leverage referrals from those who have successfully taken-up an opportunity before (see e.g., Beaman and Magruder 2012). For example, in my study a total of 1113 participants completed the program and rated it as very valuable. One could invite such a group of participants to *refer* their peers for the same opportunity and evaluate how referrals can motivate take-up compared to those invited directly by the university administrators (e.g., in my case the Office of International Relations). This potential strategy can help complement the findings of this paper and further the agenda of improving take-up of beneficial opportunities.

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Online Appendix:

How publicly targeting by group identities impacts take-up of educational opportunities

Manuel Munoz

A Invitation Email

The invitation message below was sent to all eligible students. The original email was sent in Spanish by the Office of International Relations of the local university. I include below the English translation (by the autor). Experimental variations in the content of the email are indicated with the label of each treatment: NO INFO, PRIVATE INFO, and PUBLIC INFO.

Message to students

Dear [Student Name],

The [Local University] has a collaboration agreement with the [International University], a global university of re-known quality. As part of the agreement, professors from the [International University] will teach a training program to help students at [Local University] acquire and further develop the necessary tools to achieve their goals and increase their chances of personal and professional success (you can see details of the program at the end of this message).

This great opportunity provides multiple benefits. First, being able to learn from excellent professors. Second, by completing the program participants will receive an attendance certificate from the [International University]. These types of certificates can have a very large impact in your CV and open doors for future jobs or scholarships. In addition, at the end of the program there will be a lottery of various last-generation iPads among those who complete the program, with the aim of giving students a tool

that may help them in their academic endeavors.

- NO INFO: You have been chosen among all students at the university because you can benefit from this program, as your cumulative GPA is [Student's GPA].

- PRIVATE INFO or PUBLIC INFO: You have been chosen among all students at the university because you can benefit from this program, as your cumulative GPA is [Student's GPA], and also because you fulfill one of the following requirements: being a woman, being of low-middle social class, belonging to an ethnic minority (indigenous or afro-descendant), being a first-generation student (neither of your parents has a college degree), or coming from a rural area (or not coming from any of the main cities in the country).

In order to register for the program and indicate you are interested in benefiting from this great opportunity, you will need to follow two very simple steps:

1. Pre-registration: Respond to this message indicating your interest in taking part of the program. This will count as a pre-registration.

2. Endorsement from a faculty member at [Local University]: Send an email message to a faculty member including this email address [Program's Email Address] in copy (cc), asking him/her to reply with the following message:

- NO INFO or PRIVATE INFO: I, [Professor's name] endorse student [Your Name] to take part in the training program "How to change: scientific tools to achieve the goals in your personal and professional life", because he/she can benefit from this program, as his/her cumulative GPA is [Student's GPA].

- PUBLIC INFO: I, [Professor's name] endorse student [Your Name] to take part in the training program "How to change: scientific tools to achieve the goals in your personal and professional life", because he/she can benefit from this program, as his/her cumulative GPA is [Student's GPA], and also because he/she fulfills at least one of the following requirements: being a woman, being of low-middle social class, belonging to an ethnic minority (indigenous or afro-descendant), being a first-generation student (neither of his/her parents has a college degree),

or coming from a rural area (or not coming from any of the main cities in the country).

Once the faculty member has replied, you will be officially registered. It is indispensable that both you and the professor include this email address in copy for all communication.

All professors at the [Local University] have been informed about this great opportunity, so they are willing to help you with the required endorsement.

Additional information about the program:

- Name: "How to change: scientific tools to achieve the goals in your personal and professional life".
- Instructor(s): The program will be taught by professors of high international standing from the [International University].
- Language: Spanish.
- Duration: 9 online sessions, half an hour each. All sessions are independent and you will be able to complete them at your own pace. So, you will not have any conflicts of scheduling with other academic activities.
- Start: The program will start on [Start date].
- Costs: Free course.
- Requirements: To be pre-selected and to be endorsed by a faculty member from the [Local University].
- Benefits: An international certificate of attendance. Also, you will participate in the lottery of various iPads.
- Registration deadline: Please pre-register before [Deadline date].

We await for your positive response so you can benefit from the opportunities in this program.

Sincerely,

[Signature]
Head / Office of International Relations

B Regression tables

In this section, I reports linear probability (OLS) regressions with robust standard errors (in parenthesis) to complement the results from the proportion tests presented in the main text. Table B-1 reports outcomes pooling both performance groups. Table B-2 focuses only on high performance students (i.e., first wave). Table B-3 looks at results for low performers (i.e., second wave). Table B-4 focuses only on participants that hold multiple of the targeted group identities. Table B-5 looks at results for participants holding a single group identity. Table B-6 reports outcomes for female students. Table B-7 focuses on students from rural origins. Table B-8 reports results for students from low-middle social class. Table B-9 reports results for first-generation students, and Table B-10 reports results for ethnic minority students. In all of the last five cases, the condition is that a targeted student holds the relevant group identity, irrespective of which other identity they hold. As not all administrative profiles were complete, there are missing observations on at least one of the main demographic variables used as controls. To complement the analysis, I imputed the data replacing missing observations with the average value for each variable. For all tables, the dependent variable is the rate of take-up in columns **I-II**, the completion rate in columns **III-IV**, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns **V-VI** unconditional on take-up, and in columns **VII** and **VIII** conditional on it. In all regressions, targeting is a categorical variable for which NO INFO is the omitted category. Regressions in columns **II**, **IV**, **VI** and **VIII** include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

Table B-1 The effects of information disclosure on participation: Pooling

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	-0.071^{***}	-0.074^{***}	-0.044^{***}	-0.045^{***}	-0.528^{***}	-0.544^{***}	0.275	0.275
	(0.016)	(0.016)	(0.015)	(0.015)	(0.148)	(0.147)	(0.194)	(0.195)
PRIVATE INFO	-0.037^{**}	-0.040^{**}	-0.021	-0.023	-0.307^{**}	-0.324^{**}	0.024	0.046
	(0.016)	(0.016)	(0.015)	(0.015)	(0.151)	(0.150)	(0.199)	(0.198)
Constant	0.328^{***}	0.230^{***}	0.243^{***}	0.170^{***}	2.753^{***}	1.938^{***}	8.392^{***}	8.499^{***}
	(0.012)	(0.029)	(0.011)	(0.026)	(0.109)	(0.263)	(0.136)	(0.352)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	4831	4831	4831	4831	4831	4831	1407	1407
R^2	0.004	0.025	0.002	0.014	0.003	0.020	0.002	0.004
p-values of differences								
NO INFO VS. PRIVATE INFO	0.030	0.028	0.112	0.110	0.126	0.124	0.210	0.252

Table B-2 The effects of information disclosure on participation: High Performers

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	-0.073^{***}	-0.076^{***}	-0.034	-0.036^{*}	-0.479^{**}	-0.503^{**}	0.392^{*}	0.382
	(0.023)	(0.023)	(0.022)	(0.022)	(0.220)	(0.219)	(0.234)	(0.236)
PRIVATE INFO	-0.048^{**}	-0.048^{**}	-0.020	-0.020	-0.360	-0.357	0.128	0.152
	(0.024)	(0.023)	(0.022)	(0.022)	(0.221)	(0.219)	(0.242)	(0.240)
Constant	0.412^{***}	0.365^{***}	0.305^{***}	0.268^{***}	3.466^{***}	3.057^{***}	8.417^{***}	8.485^{***}
	(0.017)	(0.043)	(0.016)	(0.041)	(0.159)	(0.408)	(0.168)	(0.420)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	2561	2561	2561	2561	2561	2561	950	950
R^2	0.004	0.035	0.001	0.018	0.002	0.026	0.003	0.010
p-values of differences								
NO INFO VS. PRIVATE INFO	0.290	0.215	0.519	0.441	0.585	0.496	0.268	0.332

Table B-3 The effects of information disclosure on participation: Low Performers

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	-0.068^{***}	-0.068^{***}	-0.054^{***}	-0.054^{***}	-0.571^{***}	-0.569^{***}	0.001	0.015
	(0.021)	(0.020)	(0.018)	(0.018)	(0.185)	(0.184)	(0.349)	(0.354)
PRIVATE INFO	-0.026	-0.026	-0.023	-0.023	-0.255	-0.259	-0.184	-0.187
	(0.021)	(0.021)	(0.019)	(0.019)	(0.193)	(0.192)	(0.348)	(0.350)
Constant	0.233^{***}	0.131^{***}	0.172^{***}	0.103^{***}	1.947^{***}	1.146^{***}	8.343^{***}	8.588^{***}
	(0.016)	(0.035)	(0.014)	(0.031)	(0.141)	(0.312)	(0.233)	(0.638)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	2270	2270	2270	2270	2270	2270	457	457
R^2	0.005	0.022	0.004	0.014	0.004	0.018	0.001	0.004
p-values of differences								
NO INFO VS. PRIVATE INFO	0.033	0.034	0.078	0.083	0.076	0.080	0.616	0.587

Table B-4 The effects of information disclosure on participation: Multiple-identities

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	-0.075^{***}	-0.078^{***}	-0.039^{**}	-0.042^{**}	-0.509^{***}	-0.538^{***}	0.427^{*}	0.424^{*}
	(0.020)	(0.020)	(0.019)	(0.019)	(0.189)	(0.189)	(0.219)	(0.221)
PRIVATE INFO	-0.042^{**}	-0.045^{**}	-0.032^{*}	-0.034^{*}	-0.392^{**}	-0.418^{**}	-0.126	-0.118
	(0.021)	(0.020)	(0.019)	(0.019)	(0.189)	(0.188)	(0.233)	(0.233)
Constant	0.358^{***}	0.135^{*}	0.266^{***}	0.089	3.016^{***}	1.076	8.436^{***}	8.224^{***}
	(0.015)	(0.076)	(0.014)	(0.066)	(0.138)	(0.681)	(0.157)	(0.958)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	3179	3179	3179	3179	3179	3179	1012	1012
R^2	0.004	0.026	0.002	0.015	0.003	0.021	0.006	0.007
p-values of differences								
NO INFO VS. PRIVATE INFO	0.096	0.087	0.695	0.674	0.524	0.507	0.016	0.018

Table B-5 The effects of information disclosure on participation: Single-Identity

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	-0.063^{***}	-0.067^{***}	-0.051^{**}	-0.053^{**}	-0.544^{**}	-0.570^{**}	-0.106	-0.015
	(0.026)	(0.026)	(0.023)	(0.023)	(0.231)	(0.231)	(0.399)	(0.389)
PRIVATE INFO	-0.032	-0.037	-0.002	-0.005	-0.162	-0.202	0.417	0.537
	(0.027)	(0.026)	(0.019)	(0.019)	(0.245)	(0.244)	(0.377)	(0.379)
Constant	0.271^{***}	0.365^{***}	0.199^{***}	0.304^{***}	2.247^{***}	3.408^{***}	8.281^{***}	10.051^{***}
	(0.019)	(0.043)	(0.017)	(0.039)	(0.175)	(0.390)	(0.271)	(0.653)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	1652	1652	1652	1652	1652	1652	395	395
R^2	0.004	0.015	0.004	0.012	0.004	0.015	0.005	0.047
p-values of differences								
NO INFO VS. PRIVATE INFO	0.209	0.216	0.029	0.035	0.095	0.108	0.185	0.156

Table B-6 The effects of information disclosure on participation: Females

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	-0.089^{***}	-0.060^{**}	-0.051^{***}	-0.049^{**}	-0.627^{***}	-0.525^{**}	0.050	-0.024
	(0.021)	(0.028)	(0.019)	(0.025)	(0.190)	(0.250)	(0.034)	(0.063)
PRIVATE INFO	-0.033	-0.007	-0.017	-0.015	-0.264	-0.154	0.021	-0.041
	(0.021)	(0.029)	(0.019)	(0.026)	(0.194)	(0.259)	(0.033)	(0.060)
Constant	0.368^{***}	0.255^{***}	0.266^{***}	0.188^{***}	3.046^{***}	2.142^{***}	0.722^{***}	0.736^{***}
	(0.015)	(0.021)	(0.014)	(0.019)	(0.141)	(0.191)	(0.024)	(0.042)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	3134	3134	3134	3134	3134	3134	1022	1022
R^2	0.006	0.038	0.002	0.027	0.004	0.033	0.002	0.007
p-values of differences								
NO INFO VS. PRIVATE INFO	0.004	0.046	0.064	0.151	0.048	0.120	0.383	0.777

Table B-7 The effects of information disclosure on participation: Rural Origins

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	-0.062^{**}	-0.059	-0.045^{*}	-0.038	-0.480^{*}	-0.384	0.011	0.031
	(0.027)	(0.038)	(0.025)	(0.034)	(0.248)	(0.345)	(0.049)	(0.085)
PRIVATE INFO	-0.041	-0.042	-0.050^{**}	-0.064^{*}	-0.438^{*}	-0.506	-0.069	-0.155^{*}
	(0.027)	(0.039)	(0.024)	(0.033)	(0.244)	(0.338)	(0.050)	(0.092)
Constant	0.299^{***}	0.251^{***}	0.232^{***}	0.186^{***}	2.559^{***}	2.061^{***}	0.775^{***}	0.742^{***}
	(0.019)	(0.028)	(0.018)	(0.025)	(0.178)	(0.249)	(0.032)	(0.056)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	1650	1650	1650	1650	1650	1650	438	438
R^2	0.003	0.011	0.003	0.014	0.003	0.014	0.007	0.019
p-values of differences								
NO INFO VS. PRIVATE INFO	0.427	0.654	0.860	0.426	0.861	0.711	0.134	0.055

Table B-8 The effects of information disclosure on participation: Low-Middle Class

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	-0.069^{***}	-0.084^{***}	-0.039^{**}	-0.063^{***}	-0.499^{***}	-0.702	0.047	0.004
	(0.018)	(0.024)	(0.017)	(0.022)	(0.171)	(0.220)	(0.030)	(0.058)
PRIVATE INFO	-0.043^{**}	-0.052^{**}	-0.029^{*}	-0.044^{**}	-0.400^{**}	-0.514^{**}	0.013	-0.025
	(0.019)	(0.025)	(0.017)	(0.022)	(0.171)	(0.224)	(0.030)	(0.056)
Constant	0.340^{***}	0.249^{***}	0.256^{***}	0.188^{***}	2.898^{***}	2.121^{***}	0.751^{***}	0.757^{***}
	(0.013)	(0.018)	(0.012)	(0.016)	(0.125)	(0.167)	(0.021)	(0.036)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	3799	3799	3799	3799	3799	3799	1150	1150
R^2	0.004	0.041	0.002	0.031	0.003	0.037	0.002	0.004
p-values of differences								
NO INFO VS. PRIVATE INFO	0.157	0.163	0.532	0.359	0.548	0.361	0.277	0.639

Table B-9 The effects of information disclosure on participation: First Generation

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	0.027	−0.026	0.047	−0.042	0.579	−0.184	0.070	−0.092
	(0.045)	(0.061)	(0.042)	(0.054)	(0.420)	(0.546)	(0.065)	(0.126)
PRIVATE INFO	−0.004	0.030	0.028	0.013	0.269	0.322	0.082	−0.034
	(0.044)	(0.063)	(0.041)	(0.057)	(0.412)	(0.576)	(0.065)	(0.116)
Constant	0.340***	0.249***	0.268***	0.204***	3.061***	2.204***	0.702***	0.759***
	(0.013)	(0.018)	(0.028)	(0.039)	(0.282)	(0.388)	(0.047)	(0.080)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	704	704	704	704	704	704	274	274
R^2	0.001	0.051	0.002	0.043	0.003	0.051	0.007	0.019
p-values of differences								
NO INFO VS. PRIVATE INFO	0.495	0.374	0.652	0.328	0.474	0.378	0.843	0.655

Table B-10 The effects of information disclosure on participation: Ethnic Minority

OLS regressions with robust standard errors (in parenthesis). The dependent variable is the rate of take-up in columns I-II, the completion rate in columns III-IV, and the number of completed steps (where take-up is step 1 and the 9^{th} session is step 10) in columns V-VI. In all regressions, targeting is a categorical variable for which *No Info* is the omitted category. Regressions in columns II, IV and VI include dummies for the targeted social categories as controls: female, low-middle class, rural, ethnic, and first generation. ***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.10 levels.

	Take-up		**Completion**		**Completed steps** *Unconditional*		**Completed steps** *Conditional*	
	I	**II**	**III**	**IV**	**V**	**VI**	**VII**	**VIII**
PUBLIC INFO	−0.088	−0.069	−0.107	−0.111	−0.945	−0.865	−0.139	−0.257
	(0.090)	(0.121)	(0.085)	(0.108)	(0.854)	(1.082)	(0.166)	(0.278)
PRIVATE INFO	0.150	0.140	−0.018	0.087	0.300	1.297	−0.361*	−0.079
	(0.104)	(0.139)	(0.095)	(0.132)	(0.942)	(1.327)	(0.148)	(0.208)
Constant	0.279***	0.269***	0.256***	0.231***	2.605***	2.385***	0.917***	0.857***
	(0.069)	(0.089)	(0.067)	(0.085)	(0.670)	(0.841)	(0.083)	(0.144)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
# Obs.	132	132	132	132	132	132	39	39
R^2	0.046	0.047	0.013	0.031	0.017	0.032	0.124	0.289
p-values of differences								
NO INFO VS. PRIVATE INFO	0.015	0.123	0.294	0.105	0.144	0.082	0.247	0.532

C Program evaluations

At the end of the training, participants were asked to complete an evaluation of the program. 1063 students out of 1066 (99%) who completed the training filled out the evaluation: 734 in the first wave (High GPA) and 329 in the second wave (Low GPA). Below, I include the main text and items of the questionnaire translated to English (by the author), as the original one was conducted in Spanish. I also report descriptives of the main outcomes and results from a comparative analysis between program waves.

The questionnaire

Please answer to the following questions according to your own experience. There are no right or wrong answers.

1. What is your general evaluation of the program?

   [Excellent (5), Good (4), Adequate (3), Deficient (2), Very deficient (1)]

2. The program objectives were clearly stated.

   [Strongly agree (5), Agree (4), Neutral (3), Disagree (2), Strongly disagree (1)]

3. The program was well organized.

   [Strongly agree (5), Agree (4), Neutral (3), Disagree (2), Strongly disagree (1)]

4. The program was intellectually stimulating.

   [Strongly agree (5), Agree (4), Neutral (3), Disagree (2), Strongly disagree (1)]

5. The program helped me improve my thinking.

   [Strongly agree (5), Agree (4), Neutral (3), Disagree (2), Strongly disagree (1)]

6. What is your general evaluation of the online sessions?

   [Excellent (5), Good (4), Adequate (3), Deficient (2), Very deficient (1)]

7. What is your general evaluation of the instructor?

   [Excellent (5), Good (4), Adequate (3), Deficient (2), Very deficient (1)]

8. The instructor encourages learning.

   [Strongly agree (5), Agree (4), Neutral (3), Disagree (2), Strongly disagree (1)]

Note: There were three additional *open* questions, which I do not analyze here. The questions were "*In what ways did the instructor help you learn?*", "*Which aspects of the course were most valuable to you?*", and "*Which aspects of the course were least valuable to you?*"

C.1 Results of the program evaluation

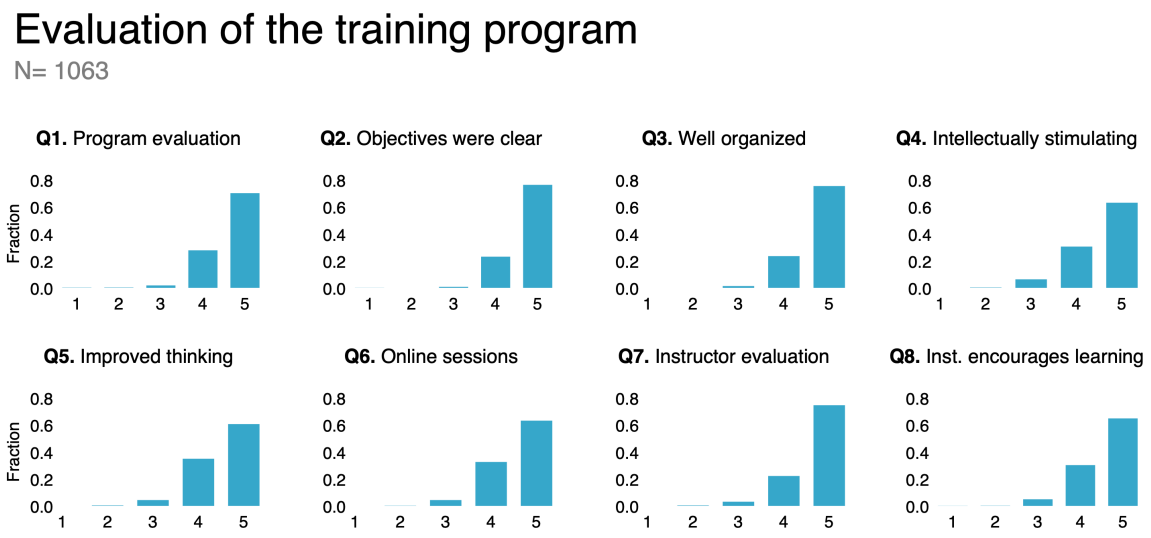

Figure B-1 Evaluation of the training program.

The figure illustrates the frequency of responses for each item in the program evaluation.

Figure B-1 reports the outcomes of the program evaluation. Panel Q1 shows that the general program evaluation was high, 97.74% of the responses center around Good (27.75%) and Excellent (69.99%). Panel Q2 shows that 99.16% of responses considered the objectives of the program were clearly explaining: 23.05% Agree and 76.11% Completely agree. Panel Q3 reports that 98.69% of participants Agreed (23.45%) and Completely agreed (75.24%) the program was well organized. Panel Q4 shows that 93.41%

considered the program was intellectually stimulating: 30.51% Agreed and 62.90% Completely agreed. Panel Q5 reports that 95.29% of participants considered the program helped them improve their way of thinking: 34.84% Agree and 60.45% Completely agree. Panel Q6 shows that 95.48% of participants consider the online sessions were Good (32.49%) and Excellent (62.99%). Panel Q7 reports that 96.52% participants evaluated the course instructor as Good (22.11%) and Excellent (74.41%). Panel Q8 shows that 94.82% of participants considered the instructor motivated their learning: 30.16% Agree and 64.66% Completely agree.

The figure and descriptives above pool both waves of the program together. In the Tables below, I report the outcomes of a regression analysis of the program evaluations by wave of the program, comparing high performing and low performing students, for each of the 8 measures elicited in the questionnaire. The results show that there are no differences between targeting strategies or waves of the program.

Table C-1 Program evaluations

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Public	-0.082	0.037	0.061	-0.021	0.061	-0.044	-0.005	0.004
	(0.075)	(0.071)	(0.064)	(0.088)	(0.085)	(0.085)	(0.078)	(0.086)
Private	-0.051	-0.012	-0.006	-0.099	0.058	0.059	0.012	-0.026
	(0.070)	(0.058)	(0.066)	(0.081)	(0.078)	(0.074)	(0.074)	(0.081)
High gpa	-0.063	0.011	0.015	-0.039	0.017	-0.019	-0.012	-0.004
	(0.055)	(0.048)	(0.055)	(0.066)	(0.069)	(0.066)	(0.059)	(0.067)
Public # High gpa	0.130	0.026	0.009	-0.000	-0.007	0.125	0.046	0.088
	(0.089)	(0.081)	(0.075)	(0.105)	(0.101)	(0.100)	(0.091)	(0.101)
Private # High gpa	0.083	-0.009	0.008	0.102	-0.097	-0.040	-0.031	0.066
	(0.086)	(0.071)	(0.079)	(0.098)	(0.094)	(0.091)	(0.089)	(0.098)
Constant	4.709***	4.732***	4.709***	4.603***	4.528***	4.571***	4.709***	4.567***
	(0.042)	(0.039)	(0.046)	(0.053)	(0.058)	(0.056)	(0.049)	(0.055)
Observations	1063	1063	1062	1062	1062	1062	1063	1061

Table C-2 Program evaluations controlling for identity groups

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Public	0.013	0.054	0.065*	-0.019	0.064	0.045	0.024	0.062
	(0.041)	(0.035)	(0.034)	(0.048)	(0.046)	(0.045)	(0.040)	(0.045)
Private	0.012	-0.022	-0.003	-0.029	-0.005	0.030	-0.015	0.012
	(0.041)	(0.034)	(0.037)	(0.046)	(0.044)	(0.043)	(0.041)	(0.046)
High gpa	0.002	0.019	0.016	-0.002	-0.008	0.005	-0.008	0.045
	(0.036)	(0.032)	(0.032)	(0.042)	(0.040)	(0.040)	(0.037)	(0.041)
Female	-0.052	0.019	0.019	0.034	0.065	0.024	0.104***	0.095**
	(0.035)	(0.032)	(0.033)	(0.044)	(0.042)	(0.041)	(0.039)	(0.044)
Mid-low class	0.138**	-0.032	-0.007	0.036	0.060	0.014	0.072	-0.044
	(0.063)	(0.047)	(0.046)	(0.065)	(0.067)	(0.059)	(0.062)	(0.060)
Rural	0.013	-0.040	-0.018	-0.013	0.063	-0.008	-0.001	0.009
	(0.037)	(0.031)	(0.032)	(0.042)	(0.039)	(0.039)	(0.037)	(0.040)
First generation	-0.041	0.002	-0.004	-0.103**	-0.098**	-0.028	0.017	0.005
	(0.042)	(0.035)	(0.036)	(0.050)	(0.046)	(0.045)	(0.041)	(0.044)
Ethnic minority	-0.185	0.165***	-0.088	0.008	0.214***	0.026	0.063	0.134
	(0.154)	(0.062)	(0.094)	(0.100)	(0.080)	(0.109)	(0.082)	(0.092)
Constant	4.583***	4.751***	4.711***	4.544***	4.434***	4.533***	4.565***	4.502***
	(0.075)	(0.058)	(0.061)	(0.083)	(0.086)	(0.078)	(0.076)	(0.081)
Observations	1063	1063	1062	1062	1062	1062	1063	1061

D Experiments on potential mechanisms

In this Appendix, I report three lab-in-the-field experiments conducted to test explore the mechanisms driving the effect of information disclosure of program take-up. Across experiments, the main setup is the same. So, I first describe the common parts of all studies, and then expand on each case separately. Below I include the main text and items of the questionnaire translated to English (by the author), as the original experiments were conducted in Spanish.

Part 1 is the same across experiments. In this part, I collect demographics: gender, social class and GPA. I use gender and social class to block randomize students into treatments in Part 2. There are two conditions: NO INFO vs. info. The main difference is that the invitation to the program discloses that selection is based on group identities (see below). I also use the GPA to personalize the invitation, the same way it was done for the field experiment.

D.1 The experiment: common setup

PART 1

The first questions are about you.

- What is your gender? *[male-female]*
- To what socio-economic strata does your family belong to? *[stratum 1 to stratum 6]*
- What is your cumulative grade point average? (if you don't remember exactly, gives us your best guess)

PART 2

To answer the following question(s), you will need to watch a short video (below 2 minutes).

This video describes the international training program that we want to offer some students at [local university], in alliance with [international university].

Attention: *The video has audio. Please turn the volume up or use headphones.*

[page break]

Please watch the following video carefully.
If you are using a cellphone, turn it horizontally to watch the video better.

https://youtu.be/bKeH9kUoSqo?si=P2atu_UsfABFR3tB

[page break]

If you were selected to participate in the program, you would get the following invitation:

- NO INFO: You have been chosen among all students at the university because you can benefit from this program, as your cumulative GPA is [Student's GPA].
- INFO: You have been chosen among all students at the university because you can benefit from this program, as your cumulative GPA is [Student's GPA], and also because you fulfill one of the following requirements: being a woman, being of low-middle social class, belonging to an ethnic minority (indigenous or afro-descendant), being a first-generation student (neither of your parents has a college degree), or coming from a rural area (or not coming from any of the main cities in the country).

D.2 Experiment on perceived program benefits

To asses the impact of information disclosure on the anticipated benefits from the program, I conducted an online experiment with 401 students from the local university. 214 were in INFO and 187 in NO INFO. The online platform (Qualtrics) randomized participants into treatments through block randomization using female and social class. The randomization is balanced for social class and GPA, while for females there is more representation in the NO INFO condition (see Table D-1 below).

Table D-1 Sample balance across experimental conditions

Columns I-II report the average frequency of each social category used in the randomization, with standard errors in parentheses, for the NO INFO and INFO conditions. Column III reports the p-values for the t-test that the means are equal in the two treatments.

	NO INFO	INFO	p-value
	I	**II**	**III**
Female	0.67	0.57	0.042
	(0.03)	(0.03)	
Low-middle class	0.89	0.90	0.908
	(0.02)	(0.02)	
GPA	4.21	4.16	0.131
	(0.02)	(0.02)	
Observations	187	214	

At the end of Part 2, I elicited the personal valuation. Participants who completed this section could earn a fixed bonus. Part 3 is a belief elicitation stage and depending on accuracy, participants could earn an additional bonus.

The questionnaire

The following is displayed at the end of Part 2.

- How much value, utility or benefit would the course have for you?

  Answer using a scale between 0 and 10, where 0 means "Very low value, utility or benefit" and 10 means "Very high value, utility or benefit" [0-10]

[page break]

You have completed your participation in this survey and will be included in the lottery to get one of the monetary bonuses.

You can end your participation here. But, you also have the chance to participate in an additional lottery for another bonus of 50 thousand pesos, if you answer some multiple-choice questions about your beliefs regarding the course.

Among those who answer the 9 additional questions, we will randomly allocate ten monetary bonuses of 50 thousand pesos. So you can participate independently in two lotteries **and may win up to 100 thousand pesos**.

if you want to participate click on **Continue**. If you want to conclude your participation here, choose **End**.

[page break]

PART 3

More than one thousand students at [local university] have completed the training program, and to all of them we have asked them to indicate how they rate the program, using the following options: Excellent, Good, Adequate, Deficient, Very Deficient.

We want to know your opinion about the valuation that 9 groups of students gave to the program. For each of these groups, please indicate which of the options you believe was chosen by most people.

If you are chosen for the lottery, the computer will randomly choose one of your 9 answers. If the option you indicate is the one that most participants in the course used for their evaluation, **you will win one of the 10 additional bonuses of 50 thousand pesos**.

[**Note**: the items were displayed in random order.]

- Which do you think is the program evaluation that was chosen by most **male** students?
- Which do you think is the program evaluation that was chosen by most **female** students?
- Which do you think is the program evaluation that was chosen by most **low class (strata 1 and 2)** students?
- Which do you think is the program evaluation that was chosen by most **middle class (strata 3 and 4)** students?
- Which do you think is the program evaluation that was chosen by most **high class (strata 5 and 6)** students?
- Which do you think is the program evaluation that was chosen by most **first generation** (neither of their parents holds a college degree) students?
- Which do you think is the program evaluation that was chosen by most **continuous generation** (at least one of their parents holds a college degree) students?

- Which do you think is the program evaluation that was chosen by most students **from rural areas**?
- Which do you think is the program evaluation that was chosen by most students **from urban areas**?

Additional results on perceived benefits

In Part 3 of the experiment, I elicited the beliefs students have about the most frequent course evaluation (i.e., Question 1 from the evaluation questionnaire) provided by each social group. The main outcome from the comparison indicates that beliefs about the course evaluation are very high (4.2 out of 5) in the experiment, although lower than in the actual course evaluation: 4.6 ($p < 0.001$). Figure B-2 reports the average evaluation of the program for each social category, separately for the beliefs reported in the experiment and the behavior in the actual course evaluation.

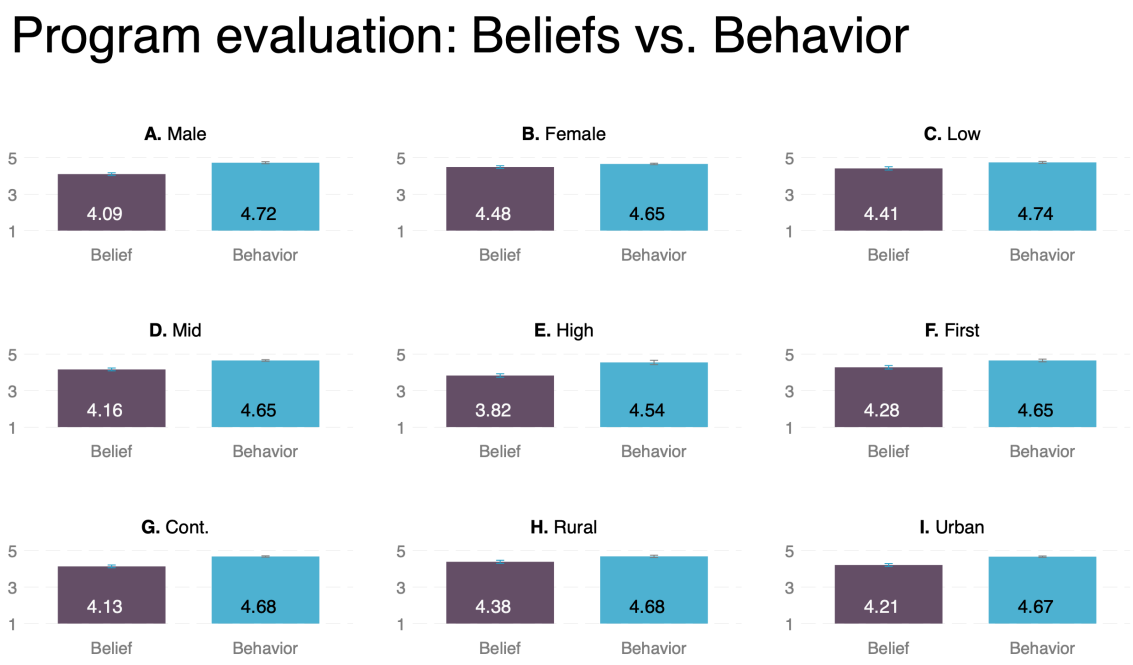

Figure B-2 Program evaluation: comparison between beliefs in the experiment and actual program takers.

The figure illustrates program evaluation in the experiment (reported beliefs) and for those who took the program (observed behavior), by each social category.

D.3 Experiment on anticipated endorser retaliation

To asses the impact of information disclosure on the anticipated retaliation from the endorser, I conducted an online experiment with 330 students from the local university. 158 were in INFO and 172 in NO INFO. As in the other experiments, the online platform (Qualtrics) randomized participants into treatments through block randomization using female and social class. The randomization is balanced across female, social class and GPA (see Table D-3 below).

Table D-2 Sample balance across experimental conditions

Columns I-II report the average frequency of each social category used in the randomization, with standard errors in parentheses, for the NO INFO and INFO conditions. Column III reports the p-values for the t-test that the means are equal in the two treatments.

	NO INFO	INFO	p-value
	I	**II**	**III**
Female	0.63	0.63	0.987
	(0.03)	(0.03)	
Low-middle class	0.93	0.92	0.829
	(0.02)	(0.02)	
GPA	4.22	4.17	0.192
	(0.02)	(0.03)	
Observations	172	158	

In Part 2, this experiment included the pre-defined endorsement message that students were required to send the faculty endorser to request their support:

- NO INFO: I, [Professor's name] endorse student [Your Name] to take part in the training program "How to change: scientific tools to achieve the goals in your personal and professional life", because he/she can benefit from this program, as his/her cumulative GPA is [Student's GPA].
- INFO: I, [Professor's name] endorse student [Your Name] to take part in the training program "How to change: scientific tools to achieve the goals in your personal and professional life", because he/she can benefit from this program, as his/her cumulative GPA is [Student's GPA], and also because he/she fulfills at least one of the following requirements: being a woman, being of low-middle social class, belonging to an ethnic minority (indigenous or afro-descendant), being a first-generation student (neither of his/her parents has a college degree), or coming from a rural area (or not coming from any of the main cities in the country).

Then, in Part 3, I elicited information and beliefs about the endorser. I include the questionnaire below.

The questionnaire

- If you had to request an endorsement from a faculty member to attend the course (asking them to send an email with the text displayed above), who would you ask for it? Please write the name and program of the faculty member you would reach out to (we will not contact him/her).
- If you ask [name of professor] for the endorsement, what is the probability that he/she helps you and sends the endorsement email? (choose a value between 0 "He/she would not send the endorsement email" and 100 "He/she would certainly send the endorsement email").
- If you were offered a slot in the international training program, do you believe [name of professor] would judge you negatively for it? [Yes - No]
- If you were offered a slot in the international training program, do you believe [name of professor] would treat you negatively from now on because you requested the endorsement? [Yes - No]

D.4 Experiment on costs associated to image concerns

To evaluate if there are costs associated to image concerns that may be triggered through the disclosure of information about selection being identity-based, I ran an online experiment with 382 students from the local university. 193 were in INFO and 189 in NO INFO. As in the other experiments, the online platform (Qualtrics) randomized participants into treatments through block randomization using female and social class. The randomization is balanced across female, social class and GPA (see Table D-3 below).

This experiment only included the first part of the invitation, without any reference to the endorsement message.

Table D-3 Sample balance across experimental conditions

Columns I-II report the average frequency of each social category used in the randomization, with standard errors in parentheses, for the NO INFO and INFO conditions. Column III reports the p-values for the t-test that the means are equal in the two treatments.

	NO INFO	INFO	p-value
	I	**II**	**III**
Female	0.66	0.68	0.719
	(0.03)	(0.03)	
Low-middle class	0.85	0.84	0.954
	(0.02)	(0.02)	
GPA	4.12	4.10	0.599
	(0.02)	(0.02)	
Observations	189	193	

The questionnaire

The following is displayed at the end of Part 2. The order of each block of 3-questions was randomized, as well as the three items within each block.

This is the last part of this survey. Take into account the invitation and answer to 9 questions about the people invited to the program.

Answer to this block of three question: In your opinion, after receiving an invitation like the one we showed you above...

- **Female** students feel that they receive a placement in the program because of *pity/obligation*. [Never, Rarely, Sometimes, Often, Always]
- **Rural** students feel that they receive a placement in the program because of *pity/obligation*. [Never, Rarely, Sometimes, Often, Always]
- **Low-middle class** students feel that they receive a placement in the program because of *pity/obligation*. [Never, Rarely, Sometimes, Often, Always]

Answer to this block of three question: In your opinion, after receiving an invitation like the one we showed you above...

- **Female** students feel *attacked/offended* for receiving a placement in the program. [Never, Rarely, Sometimes, Often, Always]
- **Rural** students feel *attacked/offended* for receiving a placement in the program. [Never, Rarely, Sometimes, Often, Always]

- **Low-middle class** students feel *attacked/offended* for receiving a placement in the program. [Never, Rarely, Sometimes, Often, Always]

Answer to this block of three question: In your opinion, after receiving an invitation like the one we showed you above...

- **Female** students feel *judged/stigmatized* by others if they accept their placement in the program. [Never, Rarely, Sometimes, Often, Always]
- **Rural** students feel *judged/stigmatized* by others if they accept their placement in the program. [Never, Rarely, Sometimes, Often, Always]
- **Low-middle class** students feel *judged/stigmatized* by others if they accept their placement in the program. [Never, Rarely, Sometimes, Often, Always]

Additional results

In the main text, I report aggregate measures of the image concerns reported in the experiment, pooling together the beliefs for female, rural and low-middle class students. In Figure B-3, I illustrate the outcomes separately for each social group. The results across groups are consistent: individuals believe that information about selection being identity-based can trigger image concerns. This is observed for female students, low-middle class students and rural students.

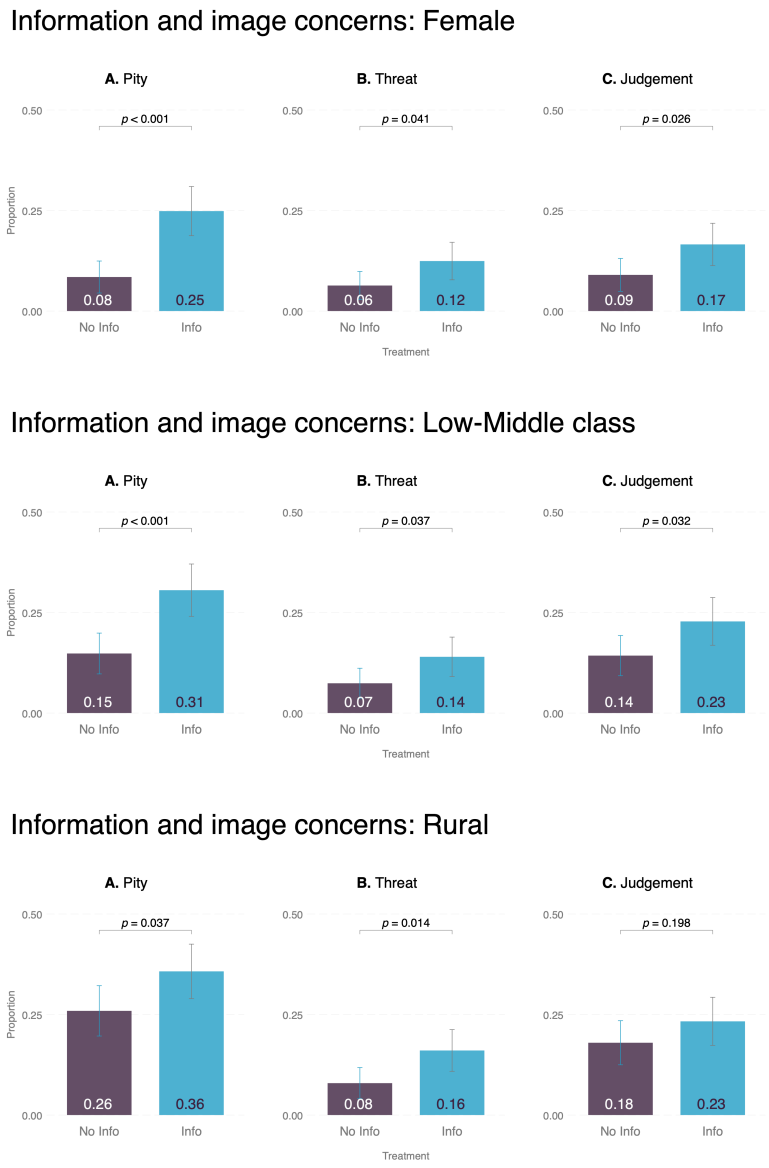

Figure B-3 Perceived image concerns of the training program by social groups.

The figure illustrates the reported concerns participants anticipate to experience if they were offered the training program, by specific social groups: female, rural, and low-middle class students.

E Details and deviations from the Pre-registration

The partnership with the local university allowed me to conduct the field experiment in two waves: High performers in the Fall of 2022 and Low performers in the Spring of 2023. In this section, I report specific details about the pre-registration and any deviations from it.

E.1 Pre-registration by waves: only second wave

The partner university was not open, initially, to allow the results of the training program to be made public. Although there was an agreement on data sharing and usage in place, each specific study requires approval to be used for divulgation purposes. The first wave of the experiment with high GPA students (fall 2022) was conducted before it was agreed to make the data public (e.g., in a research paper). Because of this, I only pre-registered the second wave of the experiment (Spring 2023). Although the sample in the second wave differs from that in the first wave in terms of academic performance, there are no differences in the experimental design, the content of the course, the incentives, or the process of endorsement, between waves.

E.2 Outcome measures

The main outcome measure in the pre-registration was take-up of the program. I, however, include a second outcome measure in the paper: completion. I still focus mainly on take-up, but use program completion as a complementary measure for two purposes: first, as an indication of the quality of the program. Note that the high levels of completion suggest that participants liked the program, which is in line with the program evaluations they completed at the end. Second, I use completion to highlight the importance of take-up. This proves very useful, as it is shown in the results that completion is not affected by the treatments when conditioning on take-up. Thus, highlighting take-up as the main outcome affected by the way participants are targeted.

E.3 analysis

In the pre-registration, I state that the analysis of the data will be conducted using OLS. This is still the case, but regression tables are reported in the Appendix. Instead, in the main text I report comparisons using proportion tests, which are very informative in the analysis of binary measures, such as take-up and completion. Results from the proportion tests and the linear probability analysis are consistent.

E.4 Ethics

All studies in reported in this paper were approved by the Ethics Review Board at Universidad Autónoma de Bucaramanga, the local partner university. Students invited to the field experiment were not informed they were part of a study. As the initiative is implemented as part of an opportunity offered by the Office of International Relations of the local partner. There is, however, a consent form put in place at the local partner university, in which all students at the beginning of their studies are informed that they will be part of research projects and that their administrative data can be used and shared with third-parties for research purposes. Students can rescind their consent at any time. At the moment of the study none of the invited students had done so.