# Online Appendix to 'Acting Wife': Marriage Market Incentives and Labor Market Investments

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## **Appendix A: Theoretical Framework**

The theoretical framework described in this section models students' choice to sign up for an internship and multiple sequential dating markets. It predicts the entire pattern of effects from our main experiment and sheds light on why non-single women and single men do not respond to the public treatment in the primary experiment (discussed in Section 3.5 of the text).

In the model, students vary in their ambition (their type), which determines whether, in the absence of the dating market, the internship is beneficial. Initially, types are private information. Students also randomly vary in whether they are paired off or single when they start business school and whether their choice over the internship is publicly revealed before the first dating market in business school. Eventually, all types are revealed, after which students can break up their relationships and enter a second dating market.

In the equilibrium we study, single women – and only single women – for whom the internship would have been otherwise beneficial do not sign up for it when their decision is public because of the dating market consequences. Note this occurs in an environment where types are eventually revealed and a stable allocation of couples that maximizes overall utility is achieved. Moreover, many students break up their first relationships and re-enter a dating market once their type is observed. The intuition is that, given the composition of types and a (possibly small) cost of breaking up relationships, a stickiness of the original match arises endogenously in equilibrium, generating dating market signaling concerns for single women. Next, we discuss the model in detail.

Labor market investment. An equal number of men and women study at a business school. Each has the opportunity to sign up for a prestigious internship, which provides benefit b (e.g., future labor market income). The internship is costly (e.g., it requires long hours, travel, and effort). There are two types of students: those with high (H) and low (L) ambition. Their internship costs are  $c^H$  and  $c^L$ , respectively, where  $c^H < b < c^L$ . Both men and women have probability p of being high type. Absent dating market concerns, only high-ambition individuals would take the internship, and there would be no gender differences in labor market outcomes. Types are private information at the beginning of the game. Consistent with the empirical setting, some individuals' internship choices will be observed, while others' will not be. Eventually, individuals' types are revealed and all students have an opportunity to enter another dating market after this revelation.

**Dating.** Students have multiple opportunities to engage in a heterosexual dating market. We assume that both genders receive an additional utility  $\theta$  from being paired with their preferred type. Men prefer L women, while women prefer H men. The difference in preferred type is the only gender difference we assume – men and women are similar in all other respects. A dating market matches each man and woman in the dating pool. For simplicity, we do not specify the strategies played in the dating process. Instead, we assume the market achieves a stable match:

that is, given players' (Bayesian) beliefs about others' types, there is no unmatched couple where the man and woman would both strictly prefer to be matched (a blocking coalition). Since there can be many stable matches, we assume a randomly assigned stable match occurs.<sup>1</sup> For simplicity, we also do not allow students to reject matches in a dating market. This could be micro-founded by an additional assumption that individuals receive positive flow utility from being in a relationship which exceeds the breakup cost and that at the end of the game they prefer being matched with a partner of either type to being single.

**Breakups.** At the appropriate time in the game, a man or a woman can unilaterally choose to break up a relationship, allowing him or her to enter a subsequent dating market. A breakup costs both partners  $\pi > 0$ .

**Timing and information.** The game proceeds as follows. There are two main stages in the game. The timing of events in each stage is described below. The steps where players take an action are highlighted in bold.

Stage 1:

- Before entering business school, a random subset of students take part in a dating market. Students paired in this round enter business school as non-single, the remainder enter as single.<sup>2</sup>
- Students enter business school and nature chooses the half of students whose internship signup decision will be public. The decision of the remainder will be private.<sup>3</sup>
- Students decide whether or not to sign up for the internship. Decisions of students in the public condition are observed.
- A dating market matches single students.

Stage 2:

- All types become public information.
- Students can decide whether or not to break up their relationships.
- A dating market matches students who broke up their relationships.

<sup>&</sup>lt;sup>1</sup>This can be micro-founded, for example, by a matchmaker randomly matching people. If there is an unmatched couple that could block that allocation, a new random match occurs. This iterates until there is a stable match that no couple can block.

 $<sup>^{2}</sup>$ For simplicity, we assume that the students date their future business school classmates (i.e., the couple enters business school and after a possible breakup both re-enter the pool).

<sup>&</sup>lt;sup>3</sup>For the equilibrium we discuss, it does not matter whether students know all of nature's choices at this stage or, as in our empirical context, students think nature has made the same choice for everyone (e.g., if a student's choice will be public, she thinks everyone's choice will be public). The equilibrium also does not depend on students' beliefs over nature's choices before this stage.

• Payoffs are realized.

**Payoffs.** Payoffs are  $(b-c^t)I - \pi B + \theta T$  where *I* is an indicator for signing up for the internship, *B* is an indicator for experiencing a breakup, and *T* is an indicator for ending the game with the preferred type.

Discussion of assumptions. The model captures the fact that romantic relationships are formed under imperfect information, but eventually partners learn more about each other. We further assume that types are not only revealed within a couple but also revealed to the entire dating pool. This serves two purposes. First, it highlights that our mechanism does not involve women hiding their types from their partners (or the dating pool) in the long run. This clarifies that a credible commitment to behave as a different type is not required for our result. Second, it simplifies the analysis, as the second stage of the game occurs under perfect information. The revelation of types to all players may also be realistic in our context, given that over time business school students accumulate substantial time spent together. Another interpretation is that students eventually reveal their partners' types (or do so after a breakup).

We also assume breakups are costly. However, we do not assume they are prohibitively costly and in equilibrium many players incur the breakup cost. This cost ensures that no one prefers to break up with a partner if he or she is sure to find only another partner of the same type. The breakup cost could be micro-founded in an extension of the model that adds irreversible relationship-specific investments.

The model assumes that students who enter business school as single and non-single differ only in one dimension: whether their first round of dating comes before or after the internship choice. Single students in the public condition form their first relationship after the market observes their internship choice, while non-single students form relationships before that information is available. Eventually both groups' types are revealed and they are allowed to break up and enter the same dating pool. This highlights that the difference between single and non-single students is only the information available when their first relationships are formed.

**Proposition.** Under parameters that satisfy Equations (1) through (3) below, there exists a Perfect Bayesian Equilibrium where in Stage 1: i) all H women who enter business school single and whose internship decision is publicly revealed in Stage 1 do not sign up for the internship, ii) all other H individuals sign up for the internship, and iii) no L individuals sign up for the internship.

Denote matches by  $(t_m, t_w)$  where  $t_m$  and  $t_w$  are the types of the man and woman, respectively. In Stage 2 all (L, H) and (L, L) pairs break up, a fraction  $\delta \equiv \frac{\theta}{\pi} \frac{(1-p)^2}{p^2}$  of (H, H) pairs break up, and no (H, L) pairs break up. Men and women are randomly paired in the Stage 1 dating markets. The dating market in Stage 2 forms (H, L), (H, H), and (L, H) matches.

The following conditions guarantee the existence of this equilibrium. Define  $\lambda \equiv \frac{\delta p^2 - (1-p)^2}{\delta p^2 + p(1-p)}$ .

$$\lambda \ge \frac{(1-p)^2}{\delta p^2} \tag{1}$$

$$\delta < 1 \tag{2}$$

$$p(1-\delta)[(1-\lambda)\theta + \pi] \ge b - c^H \tag{3}$$

A proof is provided at the end of this Appendix. We discuss the intuition behind it below.

Intuition for the proposition. First, we discuss why, given the expected breakups and rematches in Stage 2, single H women in the public condition forgo the internship. Then, we explain the breakup decisions in Stage 2.

If all single women in the public condition forgo the internship, single men expect all single women to have probability p of being type H in the Stage 1 dating market. All women will look the same to them. This generates a random match which will include (H, H) couples where undesirable women are paired with desirable men. If a single woman publicly signed up for the internship, the market would assume she was more likely than other women to be an (undesirable) H type and she would get an L partner.

Even though some of these (H, H) matches will break up, some will not. Thus, forgoing the internship increases a single woman's probability of getting a desirable final partner. She will choose to do so if this benefit is large relative to the labor market benefit of the internship (Equation 3).

No other individual has an incentive to make an internship decision that does not maximize his or her labor market returns. The first match for women in the private condition and students who enter business school already paired will not depend on their internship choice. A similar logic applies for men. Finally, L men do not have an incentive to appear more attractive by signing up for the internship in the public condition. Since all women look identical in the first dating market after the internship decision, even if L men could make themselves more desirable, they would not get a more desirable female partner.

Now we turn to the breakup decisions. Given the parameter restrictions, H students are plentiful relative to L students – perhaps a plausible restriction, given the setting we study. Thus, women of both types who got an L partner in Stage 1 will pay the breakup cost for the relatively high chance of getting an H partner in a subsequent round: all (L, H) and (L, L) couples break up. The H men paired with an H woman have a less straightforward decision. They can break up, hoping to find an L partner, but those are relatively rare. Every (H, H) couple that breaks up makes the pool worse for men by adding more male H competition for the same number of L women. In equilibrium, just enough (H, H) couples separate that H men in (H, H) couples are indifferent to breaking up, implying the breakup cost equals the expected probability that a H man finds a Lpartner times the benefit of doing so.

This equilibrium can occur under the parameter restrictions in Equations (1) through (3).

Equation (1) specifies than an H woman paired with an L partner wants to break up. Intuitively, p is high so she has a relatively high chance of being paired with an H man in Stage 2 dating.  $\delta$  is the equilibrium breakup "rate" of (H, H) couples that makes H men indifferent to breaking up. Equation (2) specifies that, for this equilibrium to exist, this must be a true rate (i.e., less than 1). If the benefit of getting a desired spouse relative to the breakup  $\cot\left(\frac{\theta}{\pi}\right)$  is too high or the chance of getting paired with an L woman in Stage 2 dating is too high (p is low), this equilibrium won't exist. Even if all other (H, H) couples broke up, an H man in an (H, H) couple would strictly prefer to break up. Finally, Equation (3) specifies the condition under which H single women in the public condition find it worthwhile to forgo the internship to increase the probability of ending the game with an H man. In general, this happens when returns to finding a desirable partner  $(\theta)$  are large relative to the labor market returns of the internship  $(b - c^H)$ .

**Empirical predictions and interpretation.** The model predicts the results found in our main experiment. Apart from single women in the public treatment, all seven other combinations of gender, relationship status, and public/private status have the same internship signup rate. This matches the overall findings and is linked to the fact we cannot reject that these seven groups behave similarly on the Kling-Liebman-Katz index.

The model helps clarify the interpretation of the empirical results. We discuss this in Section 3.5.2 of the main text, but highlight two issues here. First, the model highlights that "acting wife" does not require a woman to credibly commit to acting against her type in the long run or to hiding her type throughout her relationship. It also clarifies that the result is not driven by matches made under imperfect information being irreversible. On the contrary, all information is revealed and a new (and stable) allocation of couples is formed in Stage 2.

This illuminates why non-single women behave differently from single women in public: nonsingle women have no incentive to hide their type from current partner or to signal a different type in case they re-enter a dating market (since all types will be revealed in Stage 2).

In the model, men act similarly in public and private. The only reason men would act differently in public would be to attract a better partner. However, since women do not reveal their types, it is impossible to discern the better partners and signaling concerns disappear for men. Of course, outside of the model women may differ in other observable ways (e.g., attractiveness) that would provide an incentive for L men to hide their types by signing up for the internship. In Section 3.5.2 we discuss why L men might still choose to signal their type even when women differ in observable ways.

**Other equilibria.** Depending on the parameters of the model, other equilibria are possible. For example, the subgame that starts in Stage 2 always has an equilibrium where no couple breaks up. If no couple breaks up in equilibrium, an individual who deviates and breaks up can only get re-partnered with his or her ex-partner, but has to pay the breakup cost to do so. We believe this equilibrium to be less relevant in our context. It relies heavily on a Nash equilibrium only considering unilateral deviations, which is not as appealing when considering a dating market. In the equilibrium described in the proposition, the final matches are stable: all L women are partnered with H men. It is impossible to reallocate couples so that total utility is increased. An equilibrium without breakups would not satisfy this condition.

Another possible set of equilibria involves single L men signing up for the internship in the public condition and single women making internship sign-up decisions that maximize their labor market returns regardless of whether their decision is public. This is the mirror image of our proposition and would require L types to be more prevalent than H types, as well as  $c^{L} - b$  to not be too large.

Given certain parameter restrictions, we can rule out equilibria where either (1) both single men and single women in the public condition reveal their types through the internship decision or (2) all single men in the public condition and all single women in the public condition make the same internship decision. Under the first equilibrium, unless L types are abundant, an L single woman can guarantee an H partner in Stage 1 dating. If a desired partner is valuable relative to the internship, an H woman would benefit from pretending to be an L type and matching with an H man in Stage 1. In the second equilibrium, there would be random matching in Stage 1 dating since all individuals would be observationally equivalent. Then, at least one type could increase its utility by making the labor-market-return-maximizing internship decision without affecting his or her expected Stage 1 match. Given that internship decisions are irrelevant in the subgames starting in Stage 2 (types are revealed and the internship decision is sunk), at least one type would not be playing a best response.

**Proof of Proposition.** First, note that  $\lambda < 1$  and hence Equation (1) implies  $(1-p)^2 < \delta p^2 < p^2$ , and thus p > 0.5 > 1 - p. That is, H types are more common than L types.

The proof is by backward induction. Entering Stage 2, students are randomly paired. Given the breakup rule,  $\delta p^2$  (H, H) pairs, p(1 - p) (L, H) pairs and  $(1 - p)^2$  (L, L) pairs break up (all are written as a fraction of the total population which we omit for parsimony). Thus, there will be  $(1-p)^2 L$  women and  $\delta p^2 H$  men in the dating market. Since  $(1-p)^2 < \delta p^2$ , there are more H men than L women in the secondary pool. All of the L women will be matched with H men; otherwise they would form a blocking coalition. Some of the H women will be matched with the remaining H men, while the remainder will be matched with L men. This market produces  $(1-p)^2 (H, L)$ matches,  $\delta p^2 - (1-p)^2 (H, H)$  matches, and  $p(1-p) + (1-p)^2 (L, H)$  matches.

The breakup decisions are rational. Students in (H, L) matches do not want to break up. Breaking up could not give them a better spouse, but would cost  $\pi$ . Women in (L, L) pairs strictly prefer breaking up to staying single. Breaking up requires a cost,  $\pi$ , but gives them an H partner (instead of an L partner) with certainty. But  $(1-p)^2 < \delta p^2$  implies that  $\theta > \pi$ . H men in (H, H)pairs are indifferent to breaking up. Their probability of getting an L partner is  $\frac{(1-p)^2}{\delta p^2}$  and by definition of  $\delta$ ,  $\theta \frac{(1-p)^2}{\delta p^2} = \pi$ . Women in (L, H) pairs have a probability  $\frac{\delta p^2 - (1-p)^2}{\delta p^2 + p(1-p)} = \lambda$  of getting an H spouse if they break up. By Equations (1) and (2) and the definition of  $\delta$ , this implies  $\theta \lambda > \pi$ .

In Stage 1, the dating market for students who enter business school single randomly matches men and women since all women are observationally equivalent. All women whose decision is public forgo the internship.

Next, we show the internship decisions are optimal. Non-single students and students in the private condition have no incentive to deviate. Deviating would lower their labor market returns but would provide no dating market benefits. Their internship decisions cannot affect their Stage 1 dating and their types are fully observable (regardless of their internship choice) when they might next enter a dating market. Single men have no incentive to deviate since their internship choice does not affect their first-round pairing. Even if an L man chose the internship to look more attractive, since women are observationally equivalent, in expectation, he would still be matched with the same partner.

To show that it does not make sense for single H women in the public treatment to deviate, we have to consider off-equilibrium beliefs. We assume that if a single woman is observed to have chosen the internship, men will expect her to be of high type with probability greater than p: that is, that she is more likely to be high-ambition than if she had not chosen the internship. Thus, she will be the least-desirable woman in the dating market and matched with an L man in Stage 1. She will break up with certainty in Stage 2 and get an H partner with probability  $\lambda$  in the next dating market. Her expected marriage market returns are

$$\lambda \theta - \pi.$$
 (4)

If she does not deviate, she has probability  $p(1-\delta)$  of matching with an H man in Stage 1 and not breaking up; otherwise, she breaks up in Stage 2 and has a  $\lambda$  probability of matching with an H man in the next dating market. Her expected marriage market returns are

$$p(1-\delta)\theta + [1-p+p\delta] [\lambda\theta - \pi].$$
(5)

As long as the difference between Expressions (5) and (4) is not smaller than the labor market benefit of the internship,  $b - c^H$ , it is optimal not to deviate. But this is guaranteed by Equation (3).

Finally, it does not make sense for single L women choosing in public to deviate. Deviation would lead to lower labor market returns and no marriage market returns (in fact a marriage market cost).

To close out the proof, we simply note that matches formed before business school are created randomly. At this point there is no public information about any individual, so all participants look observationally equivalent.

#### Appendix Figure 1. Survey on Workplace Conduct

This is a survey on workplace conduct to be used in a research project by [name and affiliation]. Your participation is voluntary and your answers are completely anonymous. Refusing to participate involves no penalty and will not affect your grade in the course.

What is your age?			
What is your gender?	Male	Female	Other

In the last two years, are there behaviors or activities at your work that could have helped you professionally that you didn't undertake because you might have looked too ambitious, assertive, or pushy?

Yes No

#### If yes, mark any of the behaviors you did not undertake for that reason:

Speaking up at meetings	Yes	No
Offering to make a presentation or sales pitch	Yes	No
Asking for a leadership role in a team or task force	Yes	No
Taking initiative in negotiating a wage raise or promotion	Yes	No
Other:		

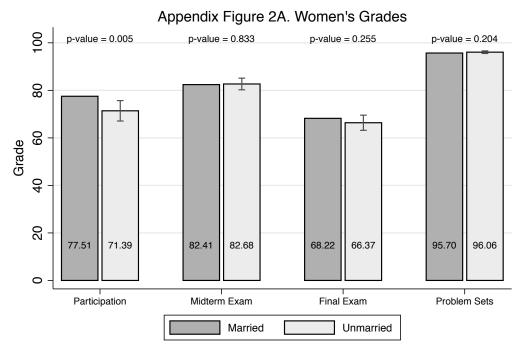
#### What is your marital status?

Single	In a serious relationship	Cohabitating	Engaged	Married
If not single, how lo	ng have you been in y	our current relationsl	nip?	
Less than a	Retween one	More than two		

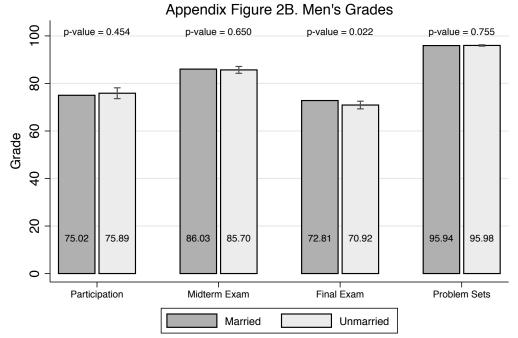
Less than a	Detween one	More man two	Not applicable
year	and two years	years	Not applicable

If you have any questions, comments or concerns about the research, you can talk to one of the researchers. Please contact [name and contact information]. If you have questions about your rights while taking part in this study, or you have concerns or suggestions and you want to talk to someone other than the researchers about the study, you may contact [IRB name and contact information].

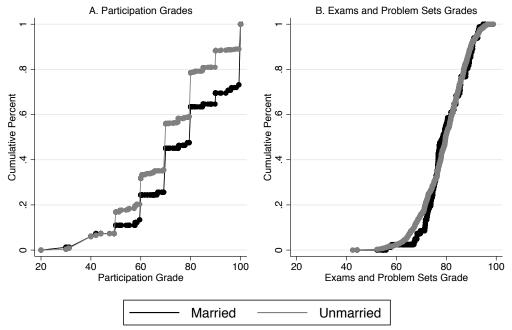
Notes: Identifying information is redacted to protect the anonymity of the MBA program.



Notes: All grades are out of 100. Whiskers show the 95% confidence interval calculated from a regression of the outcome on an indicator for being unmarried using robust standard errors.

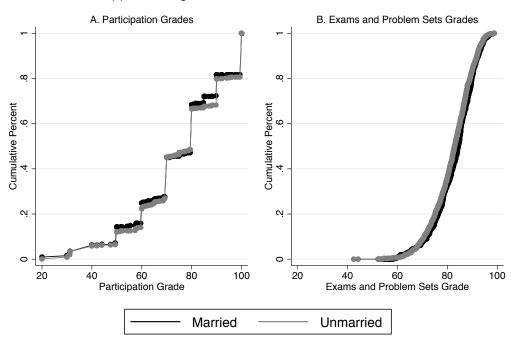


Notes: All grades are out of 100. Whiskers show the 95% confidence interval calculated from a regression of the outcome on an indicator for being unmarried using robust standard errors.



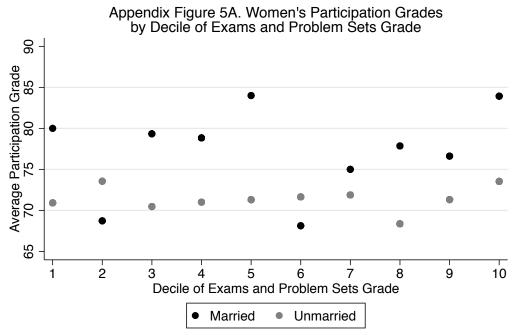
#### Appendix Figure 3. Distribution of Women's Grades

Notes: Lines show the cumulative distribution functions of grades for the given subgroups. Markers show the individual points.

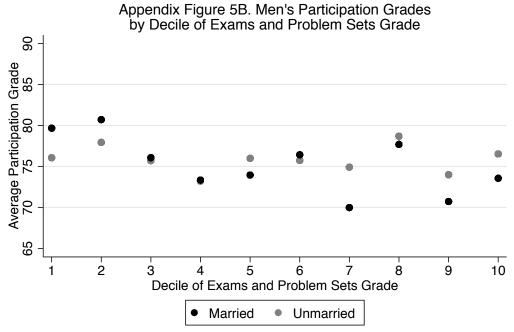


#### Appendix Figure 4. Distribution of Men's Grades

Notes: Lines show the cumulative distribution functions of grades for the given subgroups. Markers show the individual points.



Notes: For each decile of the non-participation (exams and problem sets) grade, markers plot the average participation grades for married and unmarried women with non-participation grades in that decile. Non-participation grades are split into deciles using women's grades only.



Notes: For each decile of the non-participation (exams and problem sets) grade, markers plot the average participation grades for married and unmarried men with non-participation grades in that decile. Non-participation grades are split into deciles using men's grades only.

#### Appendix Figure 6. Primary Experiment Questionnaire

The information on this survey will help the career office get to know you and help it find the right fit for your first-year internship. This information will <u>not</u> be shared with employers, so please express your true preferences, not just what you think employers want to hear. This information will be shared with your career advisor and [your/anonymized] answers will be discussed during the [name of career class].

UID Number:				_ Name	e:				
Gender Identity	(Option	al):	Male	Female	Oth	ner		Age:	
Marital Status:	Single	In a	serious	relations	hip	Cohabiting	Engaged	Married	
Do you have chi	ldren, ei	ther	biologi	cal or ad	opte	d? Yes No			
What industries	are you	inte	rested	in workiı	ng in	? List these b	elow.		

Tell us about any geographic preferences.

#### For the questions below, please circle only one answer.

What is your desired compensation level in your first year after graduation? Include base pay, performance pay, and equity, but not the signing bonus.

Under \$75,000	\$75,000-\$100,000	\$100,000-\$125,000	\$125,000-\$150,000	\$150,000-\$175,000
\$175,000-\$200,0	00 \$200,000-\$225,0	00 \$225,000-\$250,00	0 Above \$250,000	

How often are you willing to travel for work?

Rather not travelA few days a month1-2 days a week

4-5 days a week As much as necessary

#### How many hours per week are you willing to work on a regular basis?

Under 40 hours 40 hours 41-50 hours 51-60 hours 61-70 hours 71-80 hours 0ver 80 hours

#### Rate your agreement with the following statements:

1. You tend to lead in your day-to-day interactions.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

- 2. You are more professionally ambitious than your most recent work colleagues. Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree
- **3. You feel very comfortable in competitive environments.** Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree
- 4. You have above-average writing skills.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

Notes: The name of the career class is redacted. Whether students saw the word "your" or the word "anonymized" in the instructions was randomized.

## Appendix Figure 7. Supplementary Experiment Questionnaire

Please fill out the following questionnaire. There are no right or wrong answers. Once you have finished the questionnaire, continue onto the rest of the group work. If there is time at the end of class, the instructor will circulate and discuss your answers with your small group. The forms will be collected at the end of class.

Name\_\_\_\_\_\_UID\_\_\_\_\_\_

In each of the following questions, circle the job you would prefer.

Question 1:

Job A: A job with a high salary that requires 55-60 hours of work per week.

Job B: A job with a lower salary that requires 45-50 hours of work per week.

Question 2:

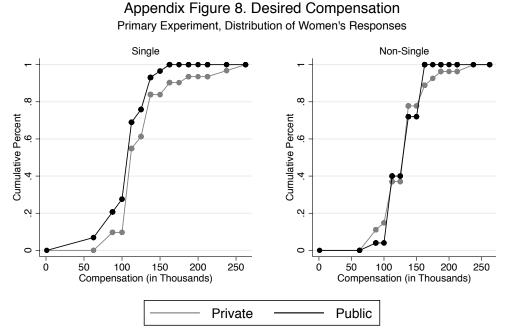
Job A. The work has a positive social impact, but you would not interact often with co-workers.

Job B. The job has a collegial and collaborative work environment, but the work does not have a social impact.

Question 3:

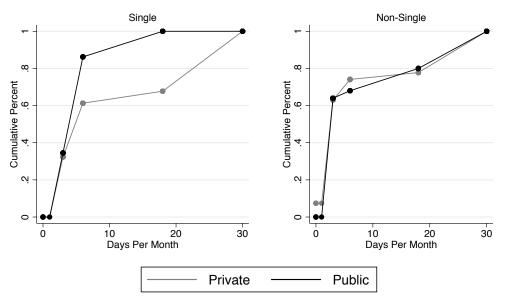
Job A. The job provides the opportunity of rapid promotion to partner, but requires constant travel.

Job B. The job has no travel, but promotion to partner level is slower and less certain.

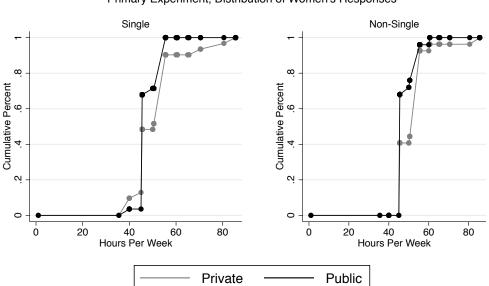


Notes: Plotted lines show the cumulative distribution function of desired compensation for the indicated group. Desired compensation is coded as the midpoint of the chosen range, except for "under \$75,000" (coded as \$62,500) and "above \$250,000" (coded as \$262,500). Some respondents chose two or more consecutive answers. Their responses are coded as the midpoint of the full range chosen. Only women are included. Non-single women are in a serious relationship, cohabiting, engaged, or married.

Appendix Figure 9. Days per Month Willing to Travel Primary Experiment, Distribution of Women's Responses



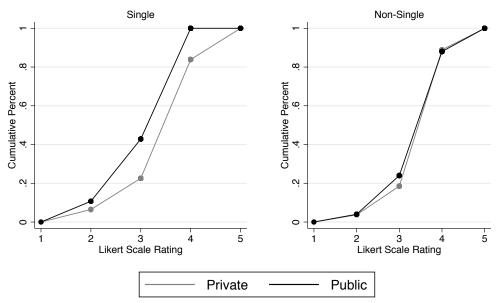
Notes: Plotted lines show the cumulative distribution function of the number of days per month the respondent was willing to travel. Willingness to travel is coded as the midpoint of the chosen range, except for "rather not travel" (coded as 0) and "as much as necessary" (coded as 30). Only women are included. Non-single women are in a serious relationship, cohabiting, engaged, or married.



## Appendix Figure 10. Desired Weekly Hours of Work

Primary Experiment, Distribution of Women's Responses

#### Appendix Figure 11. Tendency to Lead Primary Experiment, Distribution of Women's Responses

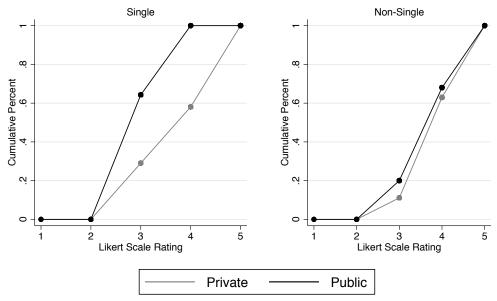


Notes: Plotted lines show the cumulative distribution function of students' agreement with the statement "You tend to lead in your day-to-day interactions." Responses were on a 1-to-5 scale, where 1 is Strongly Disagree and 5 is Strongly Agree. Only women are included. Non-single women are in a serious relationship, cohabiting, engaged, or married.

Notes: Plotted lines show the cumulative distribution function of the number of hours per week respondents reported being willing to work on a regular basis. Desired hours of work is coded as the midpoint of the chosen range, except for "over 80" (coded as 85.5, which would be the midpoint of an 81 to 90 hour range, since ranges are 41-50 hours, 51-60 hours, etc.). Some respondents chose two or more consecutive answers. Their responses are coded as the midpoint of the full range chosen. Only women are included. Non-single women are in a serious relationship, cohabiting, engaged, or married.

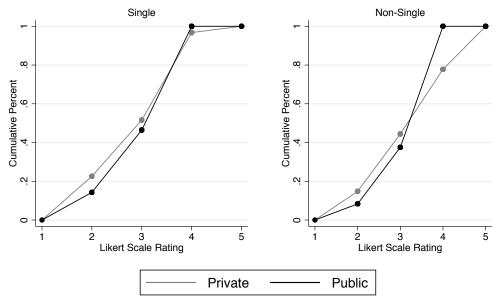
## Appendix Figure 12. Professional Ambition

Primary Experiment, Distribution of Women's Responses



Notes: Plotted lines show the cumulative distribution function of students' agreement with the statement "You are more professionally ambitious than your most recent work colleagues." Responses were on a 1-to-5 scale, where 1 is Strongly Disagree and 5 is Strongly Agree. Only women are included. Non-single women are in a serious relationship, cohabiting, engaged, or married.

Appendix Figure 13. Comfort in Competitive Environments Primary Experiment, Distribution of Women's Responses

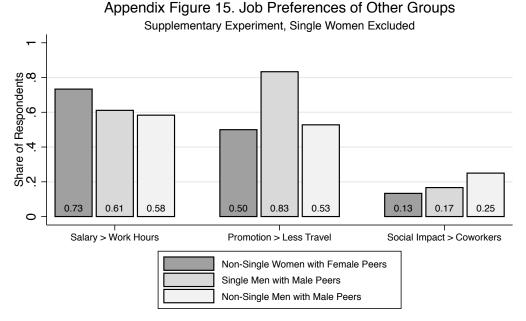


Notes: Plotted lines show the cumulative distribution function of students' agreement with the statement "You feel very comfortable in competitive environments." Responses were on a 1-to-5 scale, where 1 is Strongly Disagree and 5 is Strongly Agree. Only women are included. Non-single women are in a serious relationship, cohabiting, engaged, or married.

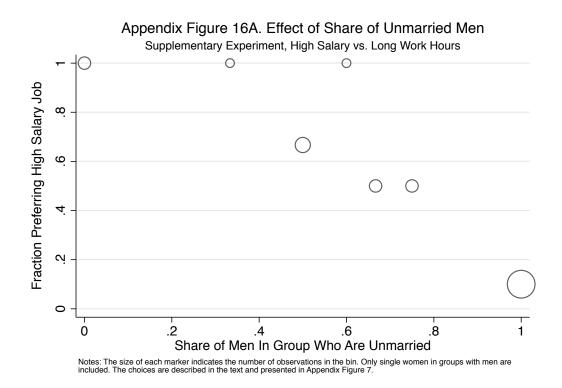
Primary Experiment, Distribution of Women's Responses Single Non-Single œ œ Cumulative Percent .4 .6 Cumulative Percent œ 4 Ņ Ņ 0 0 ż ġ. 4 5 Ś 4 5 2 Likert Scale Rating Likert Scale Rating Private Public

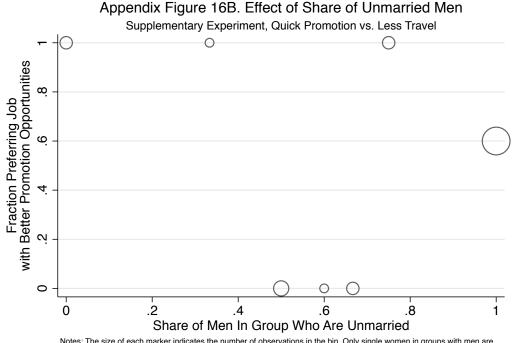
Appendix Figure 14. Writing Ability

Notes: Plotted lines show the cumulative distribution function of students' agreement with the statement "You have above-average writing skills." Responses were on a 1-to-5 scale, where 1 is Strongly Disagree and 5 is Strongly Agree. Only women are included. Non-single women are in a serious relationship, cohabiting, engaged, or married.



Notes: Each set of bars represents the fraction of the given group who reported a preference for (1) a job with a higher salary over a job with shorter work hours, (2) a job with better promotion opportunities over a job with less travel, or (3) a job with social impact over a job with more interactions with coworkers. Non-single students are in a serious relationship, cohabiting, engaged, or married.





			A. Grade	es Data					<u>B. Primary Exp</u>	periment Da	<u>ita</u>	
		Men			Women			Men			Womer	l
	Unmarried	Married	p-value of Difference	Unmarried	Married	p-value of Difference	Single	Non- Single	p-value of Difference	Single	Non- Single	p-value of Difference
Age	27.7	30.2	0.00	27.1	28.9	0.00	27.6	28.6	0.00	27.3	27.5	0.61
Has Children	0.1%	28.0%	0.00	0.2%	15.9%	0.00	0.0%	14.6%	0.00	1.7%	0.0%	0.35
Years of Work Experience	4.9	6.3	0.00	4.6	5.8	0.00	5.2	5.5	0.36	4.9	5.0	0.77
GMAT Score	713	712	0.60	703	707	0.25	719	720	0.88	707	701	0.31
Citizenship United States	70.0%	45.7%	0.00	68.2%	51.2%	0.00	65.4%	58.8%	0.30	58.3%	71.2%	0.16
North America (without U.S.)	4.9%	4.3%	0.67	2.4%	7.3%	0.01	1.9%	5.3%	0.18	3.3%	5.8%	0.54
Asia	16.9%	34.8%	0.00	23.7%	34.1%	0.04	21.2%	23.7%	0.65	35.0%	19.2%	0.06
Europe	4.6%	4.3%	0.87	2.9%	2.4%	0.81	3.8%	0.8%	0.10	1.7%	1.9%	0.92
South America	2.7%	10.9%	0.00	1.9%	4.9%	0.09	4.8%	11.5%	0.07	1.7%	1.9%	0.92
Africa	0.6%	0.0%	0.16	0.5%	0.0%	0.52	2.9%	0.0%	0.05	0.0%	0.0%	-
Oceania	0.3%	0.0%	0.36	0.3%	0.0%	0.60	0.0%	0.0%	-	0.0%	0.0%	-
Fraction of Gender Group	78.0%	22.0%		87.7%	12.3%		44.3%	55.7%		53.6%	46.4%	

#### Appendix Table 1. Descriptive Statistics by Gender and Relationship Status Grades and Primary Experiment Data

Notes: In Panel B, Non-Single refers to individuals who report being in a serious relationship, cohabiting, engaged, or married. The grades data include the 2010-2016 entering cohorts. The primary experiment data is from the 2016 entering cohort.

-	Private Treatment	Public Treatment	p-Value of Difference	Private Treatment	Public Treatment	p-Value of Difference
		A. Single Women	<u>l</u>	<u>B. N</u>	Ion-Single Won	<u>nen</u>
Age	27.4	27.2	0.715	27.7	27.3	0.483
Has Children	3.3%	0.0%	0.338	0.0%	0.0%	-
GMAT Score	703	712	0.205	701	700	0.974
Years of Work Experience	5.0	4.8	0.644	5.0	4.9	0.743
U.S. Citizen	61.3%	55.2%	0.638	77.8%	64.0%	0.282
Observations	31	29	60	27	25	52
		C. Single Men		D.	Non-Single Me	n
Age	27.5	27.7	0.471	28.4	28.9	0.350
Has Children	0.0%	0.0%	-	12.1%	17.2%	0.418
GMAT Score	719	719	0.924	720	720	0.929
Years of Work Experience	5.3	5.2	0.876	5.4	5.5	0.824
U.S. Citizen	58.3%	71.4%	0.165	65.7%	51.6%	0.103
Observations	48	56	104	67	64	131

#### Appendix Table 2. Randomization Assessment by Subgroup Primary Experiment

Notes: The first and second columns of each panel contain the means of each demographic variable for the sample indicated by the panel heading among those in the private and public treatments, respectively. The third column shows the p-value of the difference in the means from a two-tailed t-test. *Non-Single* students are those who are in serious relationships, cohabiting, engaged, or married.

	Private	Public	p-Value of Difference
Male	Treatment 67.0%	Treatment 68.7%	0.737
Age	27.8	28.0	0.635
Has Children	5.2%	6.2%	0.684
GMAT Score	713	716	0.408
Years of Work Experience	5.2	5.2	0.721
U.S. Citizen	64.8%	60.3%	0.389
Relationship Status (Self-Reported) Single	44.9%	47.5%	0.624
In a Serious Relationship	21.6%	22.3%	0.864
Cohabitating	4.0%	3.4%	0.755
Engaged	6.8%	5.0%	0.476
Married	21.0%	19.0%	0.634
No Response	1.7%	2.8%	0.491
Observations	176	179	355

## Appendix Table 3. Randomization Assessment Primary Experiment

Notes: The first and second columns of data contain the means of each demographic variable for those in the private and public treatments, respectively. The third column of data shows the p-value of the difference in the means from a two-tailed t-test.

	Kling- Liebman- Katz Index	Desired Compensation	Days per Month of Travel	Desired Weekly Hours of Work	Tendency to Lead	Professional Ambition	Comfort in Competitive Environments	Writing Skills
				A. Single Wo	men			
Public Treatment	-0.55	-18.43	-5.74	-3.35	-0.45	-0.72	0.09	0.11
	(0.14)	(9.65)	(2.43)	(2.12)	(0.21)	(0.20)	(0.22)	(0.23)
Private Treatment Mean	-0.04	131.47	13.34	52.69	3.93	4.14	3.28	3.79
Observations	51	52	52	51	52	52	52	52
R-Squared	0.29	0.20	0.22	0.14	0.12	0.27	0.07	0.24
				B. Non-Single V	<u>Vomen</u>			
Public Treatment	-0.18	-0.85	-0.65	-3.82	-0.13	-0.14	-0.09	-0.16
	(0.16)	(8.49)	(3.24)	(2.00)	(0.20)	(0.21)	(0.27)	(0.18)
Private Treatment Mean	0.04	135.42	10.50	52.79	3.92	4.25	3.71	4.21
Observations	47	48	48	48	48	48	47	48
R-Squared	0.18	0.19	0.14	0.14	0.10	0.11	0.10	0.14
				<u>C. Single M</u>	en			
Public Treatment	-0.01	-3.56	2.95	0.68	0.12	-0.17	-0.18	-0.09
	(0.12)	(7.94)	(2.43)	(2.07)	(0.15)	(0.16)	(0.16)	(0.17)
Private Treatment Mean	0.17	147.01	15.27	52.01	3.74	4.28	4.04	3.96
Observations	100	101	100	101	101	101	101	101
R-Squared	0.06	0.08	0.11	0.05	0.05	0.05	0.06	0.09
				D. Non-Single	Men			
Public Treatment	0.14	-0.82	3.11	3.27	0.10	0.00	0.09	0.05
	(0.10)	(5.99)	(1.95)	(1.91)	(0.13)	(0.13)	(0.15)	(0.16)
Private Treatment Mean	-0.08	137.50	9.39	51.46	3.72	4.15	3.64	3.77
Observations	122	122	123	123	123	123	123	123
R-Squared	0.04	0.09	0.04	0.05	0.04	0.04	0.07	0.25
		<u>E</u>	. p-values: Dif	ference in the Effe	ct of the Pub	lic Treatment		
Single vs. Non-Single Women	0.063	0.147	0.182	0.863	0.235	0.036	0.598	0.339
Single Women vs. Others	0.000	0.083	0.002	0.067	0.016	0.002	0.600	0.535

#### Appendix Table 4. Effect of the Public Treatment on Reported Job Preferences and Skills Primary Experiment, With Controls

Notes: The table replicates Table 4, where controls for age, GMAT score, years of work experience, and U.S. citizenship are included in all regressions.

	Kling- Liebman- Katz Index	Desired Compensation	Days per Month of Travel	Desired Weekly Hours of Work	•	Professional Ambition	Comfort in Competitive Environments	Writing Skills
				A. Private Trea	atment			
Female	-0.07	-10.99	-0.54	0.87	0.14	-0.01	-0.38	0.11
remale	(0.09)	(5.82)	(1.87)	(1.50)	(0.12)	(0.12)	(0.14)	(0.14)
Male Mean	0.04	143.75	12.28	51.49	3.74	4.20	3.83	3.85
Observations	174	176	175	176	175	176	176	175
R-squared	0.00	0.02	0.00	0.00	0.01	0.00	0.04	0.00
				<u>B. Public Trea</u>	<u>itment</u>			
Female	-0.52	-17.13	-7.08	-5.19	-0.21	-0.42	-0.32	0.16
	(0.08)	(4.57)	(1.58)	(1.25)	(0.11)	(0.12)	(0.12)	(0.13)
Male Mean	0.12	139.45	15.17	53.75	3.85	4.15	3.79	3.82
Observations	176	178	179	178	179	179	178	179
R-squared	0.15	0.06	0.08	0.05	0.02	0.06	0.04	0.01
		<u>C. p-values:</u>	Difference be	tween Gender G	iap in Public a	nd Private Trea	atment	
Public vs. Private	0.00	0.41	0.01	0.00	0.03	0.02	0.79	0.72

### Appendix Table 5. Gender Differences in the Private and Public Treatments Primary Experiment

Notes: Each cell in Panels A and B presents the results of regressing the outcome indicated by the column on a female dummy. Regressions in Panels A and B are limited to students in the private and public treatments, respectively. The Kling-Liebman-Katz index is defined in the text. The desired compensation and hours of work variables correspond to the midpoint of the range the respondent chose. Desired compensation is in thousands of dollars. The travel variable is the number of days per month the respondent would be willing to travel; it is also coded as the midpoint of the chosen range. The remaining outcomes are on a 1-to-5 scale. Robust standard errors are in parentheses. Panel C provides p-values for the tests that the *Female* coefficients are the same in Panels A and B.

	Single Women Only		
	Participated in Supplementary Experiment	Did not Participate in Supplementary Experiment	p-Value of Difference
Age	27.1	27.7	0.301
Has Children	0.0%	5.3%	0.154
GMAT Score	706	709	0.794
Years of Work Experience	4.8	5.1	0.465
U.S. Citizen	60.0%	55.0%	0.717
Observations	40	20	60

#### Appendix Table 6. Participation in Supplementary Experiment Single Women Only

Notes: The first and second columns of data contain the means of each demographic variable among those who did and did not participate in the supplementary experiment, respectively. The third column of data shows the p-value of the difference in the means from a two-tailed t-test. The table is limited to single women.

AgeAny Male Peers 0.77 0.8327.1GMAT Score/100.96 (1.01)70.6Years of Work Experience0.35 (0.71)4.8U.S. Citizen0.02 (0.19)0.60 (0.19)Observations4040AgeB.Share of Unmarried Men -0.54 (1.38)26.9GMAT Score/102.45 (1.38)69.9Years of Work Experience0.75 (1.21)4.6U.S. Citizen0.01 (0.29)0.61		Coefficient	Characteristic Mean			
Age       0.77 (0.83)       27.1 (0.83)         GMAT Score/10       0.96 (1.01)       70.6         Years of Work Experience       0.35 (0.71)       4.8         U.S. Citizen       0.02 (0.19)       0.60         Observations       40       40         Age $\frac{B. Share of Unmarried Men}{(1.38)}$ 26.9         GMAT Score/10       2.45 (1.38)       69.9         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.61						
GMAT Score/10       0.96 (1.01)       70.6         Years of Work Experience       0.35 (0.71)       4.8         U.S. Citizen       0.02 (0.19)       0.60         Observations       40       40         Age       -0.54 (1.38)       26.9         GMAT Score/10       2.45 (1.47)       69.9         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.61						
GMAT Score/100.96 (1.01)70.6Years of Work Experience0.35 (0.71)4.8U.S. Citizen0.02 (0.19)0.60Observations4040Age $\frac{B. Share of Unmarried Men}{(1.38)}$ GMAT Score/102.45 (1.38)69.9Years of Work Experience-0.75 (1.21)4.6U.S. Citizen0.01 (0.29)0.6	Age		27.1			
Image: Second		(0.83)				
(1.01)         Years of Work Experience       0.35 (0.71)       4.8         U.S. Citizen       0.02 (0.19)       0.60         Observations       40       40         Age $\frac{B. Share of Unmarried Men}{(1.38)}$ GMAT Score/10       2.45 (1.47)       69.9         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.6	GMAT Score/10	0.96	70.6			
Item ServiceItem (0.71)U.S. Citizen0.02 (0.19)0.60 (0.19)Observations4040Age $\frac{B. Share of Unmarried Men}{0.54} 26.9$ (1.38)GMAT Score/102.45 (1.47)69.9 (1.47)Years of Work Experience-0.75 (1.21)4.6 (0.29)U.S. Citizen0.01 (0.29)0.6 (0.29)		(1.01)				
Item ServiceItem (0.71)U.S. Citizen0.02 (0.19)0.60 (0.19)Observations4040Age $\frac{B. Share of Unmarried Men}{0.54} 26.9$ (1.38)GMAT Score/102.45 (1.47)69.9 (1.47)Years of Work Experience-0.75 (1.21)4.6 (0.29)U.S. Citizen0.01 (0.29)0.6 (0.29)		0.25	4.0			
U.S. Citizen $0.02 \\ (0.19)$ $0.60$ Observations $40$ $40$ Age $\frac{B. Share of Unmarried Men}{-0.54} 26.9 \\ (1.38)$ $26.9 \\ (1.47)$ GMAT Score/10 $2.45 \\ (1.47)$ $69.9 \\ (1.47)$ Years of Work Experience $-0.75 \\ (1.21)$ $4.6 \\ (1.21)$ U.S. Citizen $0.01 \\ (0.29)$ $0.6 \\ (0.29)$	Years of Work Experience		4.8			
(0.19)         Observations       40       40         Age       B. Share of Unmarried Men -0.54 (1.38)       26.9         GMAT Score/10       2.45 (1.47)       69.9         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.6		(0.71)				
Observations4040AgeB. Share of Unmarried Men -0.54 (1.38)26.9GMAT Score/102.45 (1.47)69.9Years of Work Experience-0.75 (1.21)4.6 (1.21)U.S. Citizen0.01 (0.29)0.6	U.S. Citizen	0.02	0.60			
AgeB. Share of Unmarried Men 20.54 (1.38)GMAT Score/102.45 (1.47)69.9 (1.47)Years of Work Experience-0.75 (1.21)4.6 (1.21)U.S. Citizen0.01 (0.29)0.6 (0.29)		(0.19)				
Age       -0.54 (1.38)       26.9         GMAT Score/10       2.45 (1.47)       69.9         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.6	Observations	40	40			
Age       -0.54 (1.38)       26.9         GMAT Score/10       2.45 (1.47)       69.9         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.6		B. Share of Unmarried Men				
(1.38)         GMAT Score/10       2.45 (1.47)       69.9         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.6	Age					
(1.47)         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.6						
(1.47)         Years of Work Experience       -0.75 (1.21)       4.6         U.S. Citizen       0.01 (0.29)       0.6	GMAT Score/10	2 45	69.9			
Years of Work Experience-0.75 (1.21)4.6 (1.21)U.S. Citizen0.01 (0.29)0.6 (0.29)			05.5			
(1.21) U.S. Citizen 0.01 0.6 (0.29)		(1.47)				
U.S. Citizen 0.01 0.6 (0.29)	Years of Work Experience	-0.75	4.6			
(0.29)		(1.21)				
(0.29)	U.S. Citizen	0.01	0.6			
Observations 21 21	Observations	21	21			

## Appendix Table 7. Randomization Assessment Supplementary Experiment, Single Women Only

Notes: Each row in Panel A presents the results of a separate regression of the variable indicated by the row on an indicator for being in a group with male peers, controlling for section fixed effects. Regressions in Panel A are limited to single women. Each row in Panel B presents the results of a separate regression of the variable indicated by the row on the share of unmarried men in the group, controlling for section fixed effects. Regressions in Panel B are limited to single women in groups with male peers. Standard errors clustered at the group level are in parentheses.

	Kling-Liebman-Katz Index	Prefers Higher Salary over Fewer Hours	Prefers Promotion over Less Travel	Prefers Social Impact over Interactions with Coworkers				
	A. Peer Gender							
Male Peers Indicator	-0.81	-0.28	-0.43	0.05				
	(0.25)	(0.17)	(0.15)	(0.14)				
Mean for Single Women in Female Groups	0.03	0.69	0.81	0.38				
Observations	34	34	34	34				
R-Squared	0.52	0.23	0.52	0.50				
		B. Marital Status of Peers						
Share of Male Peers who are Unmarried	-1.22	-1.42	0.22	0.48				
	(0.41)	(0.24)	(0.25)	(0.35)				
Mean for Single Women in Male Groups	-0.66	0.44	0.44	0.39				
Observations	18	18	18	18				
R-Squared	0.65	0.76	0.59	0.62				

## Appendix Table 8. Effect of Group Composition on Single Women's Reported Job Preferences Supplementary Experiment, With Controls

Notes: The table replicates Table 5, where in addition to section fixed effects, controls for age, GMAT score, years of work experience, and U.S. citizenship are included in all regressions.

	Kling- Liebman- Katz Index	Desired Compensation	Days per Month of Travel	Desired Weekly Hours of Work	Tendency to Lead	Professional Ambition	Comfort in Competitive Environments	Writing Skills
Single x Public	-0.47	-20.86	-5.77	-0.60	-0.33	-0.73	0.08	0.23
	(0.22)	(12.84)	(4.32)	(3.23)	(0.30)	(0.30)	(0.34)	(0.30)
Single	-0.04	0.18	1.80	0.54	0.02	-0.11	-0.32	-0.27
	(0.17)	(10.92)	(3.22)	(2.85)	(0.21)	(0.23)	(0.28)	(0.22)
U.S. Citizen x Public	0.04	5.78	2.43	0.22	0.13	0.01	-0.27	0.06
	(0.23)	(13.80)	(4.75)	(3.66)	(0.30)	(0.33)	(0.38)	(0.35)
U.S. Citizen	0.01	6.54	-5.56	1.36	-0.07	-0.06	0.37	0.63
	(0.20)	(11.92)	(3.80)	(3.33)	(0.21)	(0.27)	(0.32)	(0.28)
Years of Work Experience	0.04	5.68	-2.18	-0.77	0.09	0.06	0.12	-0.08
x Public	(0.06)	(4.33)	(1.23)	(1.03)	(0.11)	(0.14)	(0.14)	(0.10)
Years of Work Experience	-0.02	-2.98	2.37	0.69	-0.09	-0.03	-0.12	0.01
	(0.04)	(3.51)	(0.95)	(0.84)	(0.09)	(0.09)	(0.10)	(0.06)
GMAT Score/10 x Public	0.05	-0.09	0.20	0.57	0.00	0.09	0.07	-0.02
	(0.02)	(1.89)	(0.59)	(0.50)	(0.04)	(0.04)	(0.04)	(0.04)
GMAT Score/10	-0.02	0.88	-0.48	-0.29	0.01	-0.02	-0.02	0.02
	(0.02)	(1.68)	(0.51)	(0.47)	(0.03)	(0.03)	(0.04)	(0.03)
Age x Public	-0.10	-7.61	-0.55	0.10	-0.06	-0.09	-0.13	0.01
	(0.07)	(4.31)	(1.37)	(1.03)	(0.10)	(0.11)	(0.11)	(0.08)
Age	0.10	7.97	-0.07	0.47	0.10	0.03	0.09	-0.02
	(0.05)	(3.63)	(0.85)	(0.89)	(0.08)	(0.07)	(0.07)	(0.05)
Public	-0.99	184.56	10.02	-42.74	0.89	-4.30	-2.02	1.12
	(2.33)	(172.23)	(56.43)	(40.94)	(4.17)	(3.89)	(3.83)	(3.59)
Dependent Variable Mean	-0.18	128.38	10.50	50.82	3.79	3.99	3.45	3.96
Observations	98	100	100	99	100	100	99	100
R-squared	0.27	0.20	0.20	0.13	0.10	0.24	0.11	0.21

#### Appendix Table 9. Effect of the Public Treatment by Student Characteristics Primary Experiment, Women Only

Notes: Each column presents the results of a regression of the dependent variable indicated by the column on student covariates, these covariates interacted with being in the public treatment, and an indicator for being in the public treatment. Robust standard errors are in parentheses.