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Mentorship and Role Modeling, In and Out of the House: Evidence from High School Girls in Saudi Arabia

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Abstract

The labor market in Saudi Arabia has changed dramatically over the past 20 years, with rapid increases in women's employment in the private sector. We investigate the role of mentoring in helping female high school students navigate this new economic reality. We use a random-priority invitation design to estimate the effects of an after-school formal mentoring program for female high school students in Riyadh. We explore how these effects are influenced by the presence of possible within-household role models during the COVID-19 lockdown in 2020. We find that the formal mentoring program increases professional aspirations and that these effects are magnified when students have fathers and working mothers in the house during the lockdown.

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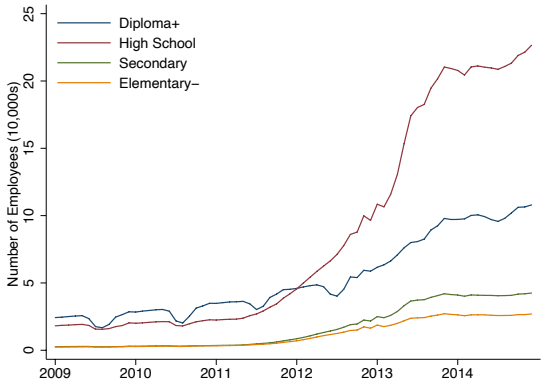
1 Introduction

1.1 Women in the Saudi Labor Market

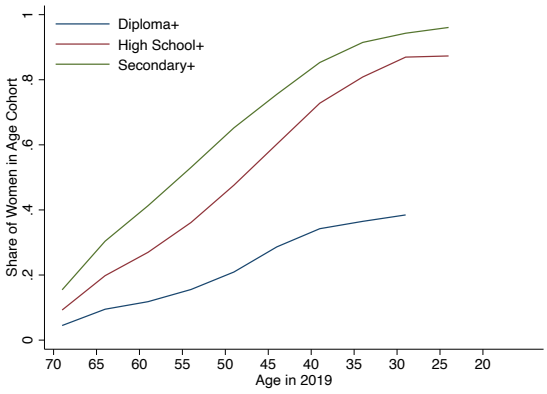
Saudi women have experienced a generational sea change in economic opportunity over the last two decades. Saudi female labor force participation increased from just 11 percent in 2000 to 26 percent by the end of 2019 (GaStat, 2020). This remarkable growth in participation has been met by an unprecedented shift in both the number and types of jobs available for Saudi women, with women's private sector employment increasing *over eightfold* in the past decade alone. This transformation coincides with a slate of ambitious labor reforms that began in 2011. The Nitaqat Saudization program, a (gender-neutral) policy to increase Saudi employment in the private sector, yielded large increases in the Saudi private sector workforce, especially among Saudi women (Peck, 2017). The Retail Employment Decrees and the Hafiz program have also drawn large numbers of women into the private sector (Evidence for Policy Design, 2015). Social policy changes, such as the updates to the guardianship system and a lifting of the female driving ban in 2018, have increased women's mobility both within and outside of the Kingdom (Embassy of the Kingdom of Saudi Arabia, 2019; Macias-Alonso et al., 2022). As a result, Saudi firms have begun hiring women in unprecedented numbers over the last decade, with much of this increase driven by previously all-male firms hiring women for the first time (Miller et al., 2022). These policy shifts have coincided with more progressive social norms toward women's work outside the home in Saudi society, though the understanding is that households have been slower to adapt to these norms than the rapid policy changes would suggest (Bursztyn et al., 2020; Yee, 2020).[1]

FIGURE 1
FEMALE EMPLOYMENT BY EDUCATION AND EDUCATIONAL ATTAINMENT BY AGE

(a) Private Sector Employment by Education



(b) Educational Attainment by Age



Source: General Organization for Social Insurance; GaStat: Education and Training Survey (2017).

Much of this growth has been concentrated among young women with secondary-level degrees,

[1] Recent work has demonstrated the importance of social information and parental expectations in shaping the career aspirations of female college students in Saudi Arabia (Aloud et al., 2020).

and Saudi women with high school diplomas have seen the largest growth in private sector employment of any demographic group in Saudi Arabia since 2011. Figure 1 shows the increase in private sector employment by educational attainment for Saudi women from 2009 to 2015. This sudden shift in economic prospects highlights the importance of mentoring for young Saudi women, many of whom are likely to be the first women in their families to complete secondary (or tertiary) schooling and enter the labor force. Mentoring may come from people outside the family, such as teachers and friends, or from role models within the family: mothers, fathers, siblings, and other extended family members.

In a setting in which women's labor force participation has historically been low, there may be a limited network of available role models and mentors for high school girls deciding whether to join the labor market. Mentorship through the mechanism of role modeling has been seen to be consequential in women's careers, from first female managers in organizations on subsequent female hires and retention (González, 2022), to influencing major choice (Porter and Serra, 2020), to entrepreneurial success (Eesley and Wang, 2017). Recent work on the role of mentoring shows preliminary evidence that access to role models through external mentoring programs can influence youth outcomes in a variety of settings (Kipchumba et al., 2021; Dhar et al., 2022; Herrera et al., 2011; Dubois et al., 2002; Rhodes, 2008; Eby et al., 2008; Rodríguez-Planas, 2014), particularly when the mentoring is part of more comprehensive support programs (Rodríguez-Planas, 2012; Oreopoulos et al., 2017; Lavecchia et al., 2020; Heller et al., 2017). However, less is known about the role of mentoring programs on youth labor market plans (Resnjanskij et al., 2021). This study examines the impact that formal external household programs have on female youth labor market aspirations and how this intersects with existing familial influence in the Saudi setting, where female employment has been historically low. We explore these effects against the backdrop of the COVID-19 crisis, in which lockdowns interrupted the accessibility of outside mentors and increased the importance of within-household relationships.

1.2 Program Description

Our research partner, Alnahda Society, is a Saudi nonprofit organization in Riyadh established in the early 1960s. The organization is dedicated to the empowerment of women through financial and social support, training and capacity development. Its programs target low-income women and female-led households to help them become financially independent. Historically, the organization was a charity that disbursed donations to address the needs of women from economically disadvantaged backgrounds. One of Alnahda's primary modern features is its focus on client training, preparation, and placement into employment. Its school-age mentoring program, Mustaqbali, was launched in 2011 in response to challenges observed among their beneficiaries: only 7 percent of women aged 25-40 had completed post-secondary education (compared to a national average of 24.5 percent) and only 15 percent of this population entered the labor market, generally at wages too low to meet family needs (World Bank, 2020). Mustaqbali targeted female high school students whose families were already beneficiaries either of Alnahda or of other similar nonprofits. The pro-

gram began as a one-year program but expanded into a three-year program in 2013, with cohorts that match secondary school grade levels. It provides a combination of training and mentoring aimed at ensuring that participants graduate from high school with a feasible future plan built on self-awareness and knowledge of academic and career opportunities. Specialized female instructors train, direct and guide students throughout the entire school year, helping them identify future academic and vocational goals and plan for the type of study or specialization that suits their needs and abilities. The program ultimately seeks to increase economic opportunities for women and raise female labor market participation. Mustaqbali includes approximately 50 students per cohort divided into two classes of 25 students each. A total of 21-22 four-hour sessions are conducted once per week throughout the school year. Sessions are taught by an estimated 13-15 instructors per year. Given the importance of family influence in Saudi society on academic and career decisions, Mustaqbali works to also engage participants' mothers in the process. Throughout the academic year, 3-4 workshops are held for participants' mothers to help them support their daughters' development.

We partnered with Alnahda for the 2019-2020 academic year to evaluate the impact of its mentoring program. We analyzed archival data from past programs and co-designed a baseline survey to measure whether the mentorship program encourages interest in graduating from high school and joining the labor market. We had initially planned to conduct three surveys: a baseline survey in the summer of 2019 prior to the beginning of the academic year, a midline survey in March 2020, and an endline survey in September 2020. Nevertheless, given the global COVID-19 emergency and ensuing stay-at-home restrictions in March 2020, our midline data collection had to be canceled, and Mustaqbali had to stop its operations. Following the partial reopening of Alnahda's operations (with very limited in-person services that did not include the continuation of Mustaqbali), we conducted an endline phone survey with the participants during the summer of 2020. In this survey, we added COVID-19-related questions to understand how the lockdown had affected these young women and their families. Alnahda decided to halt its mentoring program for the 2020-2021 academic year to focus on revamping its curriculum for the following academic year.

2 Data

2.1 Data Collection

Baseline Survey Alnahda provided the research team with a pool of 138 potential candidates to join Mustaqbali for the 2019-2020 academic year. These candidates were eligible to join for the first year (70), as well as to fill vacancies for the second year (41) and third year (27). Candidates included 77 female high school students in families that already received social and financial support services from Alnahda as well as 61 students who were referred by similar organizations. This population comes from a low-income background and is expected to face social and economic difficulties that may prevent them from completing their high school degree and accessing employment. All 138 candidates were contacted for the baseline survey, for which we obtained 114

responses: 65 from candidates in client families and 49 from other organizations. The baseline survey was conducted in Arabic by phone between July and early September of 2019 and lasted between 25 and 40 minutes. Alnahda volunteers were trained to conduct the surveys and follow Institutional Review Board (IRB) requirements, which required getting parental consent for the underaged students before contacting them. The survey included questions related to mentorship, entrepreneurship, household characteristics, individual support networks, social beliefs, soft skills, and future plans. Students in the sample are between the ages of 13 and 24, with 76 percent of them under age 18.

Invitation to Join Mentoring Program After conducting the baseline survey, our partner invited about half of the students from this list to participate in the mentoring program. Alnahda invited all of the students from its own client families to join the program but allowed us to generate a randomized invitation priority among the 61 potential participants referred by other organizations. Of this group, 19 joined the mentoring program and 42 did not. The partners used our priority list as a reference when reaching out to potential participants, though invitations were ultimately made at the program manager's discretion. Nevertheless, our random-priority order is correlated with Mustaqbali participation, and we use this assigned invitation priority as an instrument for program participation.

Endline Survey The endline survey required adaptation to the new and challenging research environment generated by the global health crisis and lockdown resulting from the COVID-19 pandemic.[2] The survey was conducted in Arabic by phone between June and August 2020 and lasted between 20 and 30 minutes. New Alnahda volunteers were trained to conduct the surveys and follow IRB requirements. The questions captured plans after graduation, which allowed us to see if the mentorship program had any effect on short-term outcomes, such as intentions to further study or work. It also included questions related to COVID-19, household characteristics, individual support networks, male relative support, entrepreneurship, and social attitudes.

There was some attrition in our sample between baseline and endline. Of the 114 who responded to the baseline survey, 71 also responded to the endline survey: 39 out of the 67 Mustaqbali participants and 32 out of the 47 non-participants. In the randomized priority sample there were 31 matched responses: 11 from Mustaqbali participants and 20 from non-participants. Attrition was higher for Mustaqbali participants than for those not in the program (42 percent vs. 33 percent) but was similar across the groups of Alnahda clients and external referrals.

[2]While we had initially planned to conduct an in-person midline survey in March 2020 and an endline survey in September 2020, we were forced to adapt our data collection methods, timeline, and research questions in light of the new and evolving challenges that COVID-19 presented. Thanks to the support of our research partner, we were able to adapt our study methodology to the realities of travel prohibitions and safety guidelines issued by the Ministry of Health of Saudi Arabia and our own institution's IRB requirements, which prohibited face-to-face data collection.

2.2 Summary Statistics

Table 1 reports some summary statistics for the baseline characteristics of the randomized-priority sample as well as the full sample of surveyed students by mentoring program participation. Consistent with the design of the program, most students were between 16 and 19 and in the later years of high school.[3] Overall, the randomization appears to have been largely successful at balancing covariates across the two groups in the random-priority subsample. Both groups were comparable in terms of their plans for the future, with nearly all students (around 94 percent) planning to continue with school. Around 30 percent planned to work, some concurrently with continuing school. Two of the students reported plans to stay at home after finishing the school year, and one of these students planned to get married. Of those who answered the question (13 and 9 of the non-participant and participant students, respectively), students reported an average monthly reservation salary of 4760SAR and 3610SAR (about 1280 and 970 USD), an amount higher than the minimum wage of 3000SAR. Mother's education and employment status were two areas in which the groups were less comparable. Non-participants were significantly more likely to have mothers with no formal schooling and less likely to have mothers who had completed secondary schooling. Participants were also 45 percent more likely to have mothers who worked outside of the home (44 percent vs. 10 percent). One of Alnahda's primary features is its focus on training, preparing, and placing women from economically disadvantaged backgrounds into employment. If these beneficiaries are more attached to Alnahda's programming, it is perhaps not surprising that there is some selection on these features into the mentoring program for their daughters. Our analysis includes controls for mother's education, whether the mother works outside the home, age, and household size.

These students are part of an important (and growing) segment of Saudi society. The share of young women (25–29) with a high-school diploma was 87 percent in 2017, up from 43 percent in the cohorts that include many of their mothers (45–55) (GaStat, 2017). This is consistent with the data reported by our sample, where nearly all surveyed students report plans to finish high school though only 30 percent of their mothers completed secondary school. Women's labor force participation, which was 11 percent in 2000, more than doubled to 26 percent by the end of 2019. The employment of high-school-educated women in the private sector increased *over twelve fold* between 2009 and 2015. Even though employment rates are higher for this group of mothers than for women as a whole, it seems likely that these students will enter the workforce at even higher rates than their mothers did. The occupations of high-school-educated women working in the private sector have also changed rapidly. From 2009 to 2015, the share of this group working as "business and administration professionals" grew from 4.6 to 16.4 percent, "numerical and material recording clerks" from 1.4 to 6.4 percent, and "sales workers" from 4.0 to 7.7 percent. The share working as "teaching professionals" fell from 19.3 to 5.6 percent, "personal care workers" from 11.2 to 3.8 percent, and "refuse and other elementary workers" from 6.7 to 2.8 percent.[4] These characteristics

[3] Students in the mentoring program were slightly younger on average than non-participants in the full sample.

[4] Authors' calculations using GOSI data (General Organization for Social Insurance, Kingdom of Saudi Arabia,

of the sample further highlight why these students may benefit from outside mentors who can speak to the specifics of their employment prospects in this rapidly changing environment.

Table 1
Differences between Program Participants and non-Participants at Baseline

	Random Priority Sample			Full Sample		
	Participant	Non-Participant	Diff	Participant	Non-Participant	Diff
General						
Age	17.55	18.05	-0.51	17.13	17.94	-0.81*
Average grades in high school	83.18	81.88	1.31	81.24	83.27	-2.03
Plans after this year						
Graduate from high school	0.91	0.95	-0.04	0.95	0.94	0.01
Work	0.18	0.35	-0.17	0.38	0.28	0.10
Training/Internship	0.00	0.20	-0.20*	0.05	0.12	-0.07
Further study	0.55	0.75	-0.20	0.54	0.59	-0.06
Stay at home	0.00	0.10	-0.10	0.03	0.06	-0.04
Get married	0.00	0.05	-0.05	0.10	0.03	0.07
Minimum salary willing to accept						
Minimum salary	3.61	4.76	-1.15	3.84	5.01	-1.17
Mother's education						
Secondary diploma +	0.55	0.15	0.40*	0.36	0.16	0.20*
No secondary diploma	0.45	0.50	-0.05	0.51	0.53	-0.02
No formal school	0.00	0.25	-0.25*	0.10	0.25	-0.15
Don't know / Prefer not to answer	0.00	0.10	-0.10	0.03	0.06	-0.04
Father's education						
Secondary diploma +	0.00	0.15	-0.15	0.21	0.16	0.05
No secondary diploma	0.73	0.50	0.23	0.59	0.53	0.06
No formal school	0.00	0.05	-0.05	0.00	0.09	-0.09
Don't know / Prefer not to answer	0.27	0.25	0.02	0.15	0.19	-0.03
Parents' employment						
Mother works outside the home	0.55	0.10	0.45*	0.38	0.09	0.29**
Mother works from home	0.27	0.15	0.12	0.21	0.09	0.11
Father employed	0.45	0.45	0.00	0.54	0.47	0.07
Household composition						
Household size	5.36	7.65	-2.29*	6.85	7.41	-0.56
Father is in household	0.36	0.60	-0.24	0.46	0.59	-0.13
Observations	11	20		39	32	

Note: This table presents mean differences between mentoring program participants and non-participants at baseline for both the random-priority sample as well as the full sample including students from Alnahda client families. Only a subsample of respondents chose to answer the minimum salary question: 9 participants and 13 non-participants in the random-priority sample, and 32 participants and 22 non-participants in the full sample. Salary is in thousand SAR per month. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

3 Results and Discussion

3.1 Effects of the Mentoring Program

Table 2 reports the results for the regression of the change in our five main outcome variables on program participation in our random-priority subsample. Columns (1) and (2) report these results when random invitation priority is used to instrument for program participation, and columns (2) and (3) report the OLS results with and without controls for the between-group differences observed in Table 1. The impacts were largest for work-related plans: students who participated in the program were significantly more likely to report plans to work or seek on-the-job training

2015).

and internship opportunities after high school. Participants were no more likely to report plans to graduate from high school, seek further study, or remain at home.

The fact that mentoring affected professional but not educational aspirations is reasonable given the population and the broader economic context. As shown in Figure 1, job opportunities have expanded extremely rapidly for this population. While Saudi women have seen sustained growth in educational attainment, these changes have been smoother over time. The information provided by mentors about job opportunities is likely to differ more starkly than the advice available to these students from their personal networks. At baseline, the students in our sample also reported job aspirations consistent with this type of on-the-job post-secondary training.[5] These responses are consistent with a focus in this demographic on practical next steps toward salaried professions. This feature also maps on to increased professional aspirations compared with the occupations of their mothers. About one-third of program participants have mothers who work. Among these women, the most commonly reported occupations are home business owner, factory worker, hospital worker, and security/military worker. This finding also reflects recent shifts away from occupations such as refuse worker and personal care worker and toward more administrative jobs, as seen in the GOSI data. For this population, then, important changes seem to have taken place not only in the availability of jobs but also in the types of jobs that are accessible with additional practical training. This shift is reflected in a change in their aspirations away from minimum wage jobs and toward salaried jobs requiring more training and credentials. These student do not, however, seem to see college as a path toward accessible careers. An interesting avenue for further study would be to explore the quantitative shift in wage returns to these types of internships and training beyond high school (but not a college education) and the qualitative shift away from the types of jobs their mothers held toward jobs in this new sector. This margin (rather than the returns to a college education) appears to be key for this important demographic.

3.2 Effects of the Lockdown

The mentoring program ran from September 2019 through March 2020, when COVID-19 lockdown in Saudi Arabia paused in-person schooling and ended the mentoring program. The students in our sample spent these last months of the study period locked down with their families. Our endline survey added questions about their household composition during the lockdown to get a sense of how these within-household relationships were correlated with the work aspirations of the students in the sample.

Table 3 reports the correlation of household composition during the COVID-19 lockdown on plans to work for the full sample. Having their father present in the household during the lockdown correlates positively with plans to work for the whole sample but is only robust for mentoring program participants. We interpret this finding as a paternal "boost" to plans to work leveraging the impact of the mentoring program. The effect is similar for students that had a working mother in the household during the lockdown: working mothers were associated with a boost in the career

[5] Qualitative data on preferred industry were collected in an open-ended question in our baseline survey.

Table 2
Effects of Program Participation

	IV		OLS	
	(1)	(2)	(3)	(4)
Work	1.58**	1.48**	0.93***	0.78*
	(0.76)	(0.69)	(0.19)	(0.40)
Training/Internship	0.93	1.15*	0.71***	0.66*
	(0.64)	(0.62)	(0.21)	(0.22)
Graduate from high school	-0.33	-0.46	0.05	0.06
	(0.39)	(0.37)	(0.09)	(0.11)
Further study	-0.34	-0.56	0.25	0.14
	(0.68)	(0.62)	(0.18)	(0.24)
Stay at home	0.09	0.04	0.13	0.08
	(0.31)	(0.28)	(0.09)	(0.07)
Controls		✓		✓
N	31	31	31	31

Note: This table presents IV and OLS estimates of the effect of program participation on plans to work and graduate from high school for the random-priority sample. Invitation priority is used to instrument for program participation. Columns (2) and (4) include controls for age, mother's education, whether the mother works outside the home, and household size. All regressions include dummy variables for year of entry into the mentoring program. Robust standard errors are reported in parentheses. *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

aspirations of students in the mentoring program but not those of non-participants.

Interestingly, the presence of a brother in the household has a negative correlation with plans to work, indicating evidence of the presence of a male relative having a heterogeneous impact on high school girls' aspirations to work in this context.[6] This is only the case for non-participants: the fact that a brother's presence is not negatively correlated with plans to work for mentoring program participants suggests a possible moderating effect of the formal out-of-home mentoring program on any negative impact that a brother's presence might have on plans to work. Interestingly, the effect of a brother's presence is also moderated by the presence of the father in the household, indicating potentially heterogeneous effects of the types of support received from different male members of the household. However, we point to these results with caution as we are underpowered to detect a significant impact of a brother's presence when the sample is divided by Mustaqbali participation.

4 Conclusion

In a setting with rapidly growing female labor supply by a growing middle class of women with terminal high school degrees, can the outside provision of mentoring and role models effectively

[6]This pattern has been noted in other contexts (e.g., by Blaydes et al. (2021) in neighboring Qatar).

Table 3
Household Composition and Plans to Work

	(1) All	(2) All	(3) Participant	(4) Non-participant
Number of people in HH	-0.074	-0.069	-0.113	-0.028
	(-1.66)	(-1.61)	(-1.70)	(-0.48)
People in HH during lockdown				
Mother (working)	0.325*	0.310*	0.604**	0.051
	(2.02)	(2.00)	(2.77)	(0.19)
Mother (not working)	0.105	0.250	-0.801	0.123
	(0.25)	(0.62)	(-0.90)	(0.22)
Father	0.411*	-0.825	0.757**	0.306
	(2.51)	(-1.55)	(3.13)	(1.38)
Brothers	-0.407	-1.356**	1.140	-0.846*
	(-1.40)	(-2.82)	(1.68)	(-2.70)
Brother*Father		1.308*		
		(2.42)		
Sisters	-0.284	-0.191	-0.174	-0.601
	(-1.16)	(-0.80)	(-0.61)	(-1.30)
Grandparents	0.256	0.166	0.190	0.223
	(1.12)	(0.74)	(0.60)	(0.70)
HH help	0.168	0.106	0.311	0.126
	(0.72)	(0.47)	(0.83)	(0.40)
Other people	0.020	-0.033	0.241	-0.138
	(0.08)	(-0.14)	(0.70)	(-0.40)
Participant	0.359*	0.420**		
	(2.34)	(2.81)		
N	70	70	38	32
R2	0.345	0.406	0.409	0.450

Note: This table presents estimates of the correlation between household composition and changes in the plans to work between baseline and endline for the full sample. Regression coefficients were estimated via OLS, and t-statistics are reported in parentheses. Except for the number of people in the household, all covariates represent binary dummy indicators. One participant responded "I don't know" when asked about the number of people in the household, so that participant's responses are dropped from these regressions. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

complement the lack of role models and heterogeneous support from within the household?

Our results show the importance of a short-term formal mentoring intervention that provides role models of working women outside the household on the medium-run aspirations of high school students to work outside of the home when they lack within-household female working role models. We find that, for some girls from economically disadvantaged backgrounds, the effect of out-of-home mentoring can in fact be greater than the effect of having mothers who work outside the home. We also document the boosting effect that supportive fathers can have on the effects of the out-of-home mentoring program, although we find evidence of heterogeneity of support from other male relatives with less status in society, such as brothers, consistent with other recent evidence in the literature. We believe that future study can investigate the household dynamics that boost or moderate the impact of formal mentoring programs outside the home on girls' career aspirations.

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