



Maternal Employment Shapes Daughters' Employment Stability in Egypt: Evidence for the Intergenerational Transmission of Labor Force Attachment

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Abstract

Research has documented how maternal employment influences daughters' participation in paid employment. However, we know far less about how maternal employment during daughters' adolescence relates to the daughters' subsequent employment stability. Analyzing data from three waves (2006, 2012, and 2018) of the Egypt Labor Market Panel Survey ($N=3,345$) using structural equation models, this study compares the employment stability of women with and without working mothers during adolescence and examines how the influence of maternal employment on daughters' employment stability varies with employment sector. Furthermore, a decomposition method is applied to determine the extent to which daughters' education mediates the association between maternal employment and their employment stability. The results show that mothers' employment is positively associated with their adult daughters' employment stability. This intergenerational association is sector specific: mothers' employment in a given sector only bolsters their daughters' employment stability in the same sector. The daughter's education mediates only a small portion of the intergenerational association in the public sector. The findings highlight the important role of Egypt's institutional settings in configuring the intergenerational transmission of employment stability among women, and suggest that policies that support working mothers have the potential to bolster their daughters' long-term labor market attachment.

Keywords Egypt · employment stability · gender · intergenerational · work

Over the past two decades, employment instability has become a key feature of the Egyptian labor market, particularly among women (Barsoum, 2019; El-Haddad & Gadalalah, 2021; Wahba & Assaad, 2017). The share of total work that is either irregular or seasonal has increased from 21% in 2009 to 26% in 2014 (Roushdy & Sieverding, 2015). In 2017, almost half of the female workforce was in temporary or part-time jobs (Constant et al., 2020). As moving in and out of employment can reduce women's, but not men's, likelihood of re-employment (Fuller & Qian, 2022), women's employment instability represents an important site for

the (re)production of gender inequality (Evertsson et al., 2016). Research on women's employment stability is thus key to informing policies that address women's interrupted employment and its consequences in a context of increasingly precarious work security.

Intergenerational relations in the family play a crucial role in shaping people's labor market outcomes. Scholars have long established a link between parents' and their daughters' employment across a wide range of contexts, showing that daughters of employed mothers are more likely to be employed than daughters of unemployed mothers (McGinn et al., 2019; Sieverding, 2015; Van Putten et al., 2008). However, whether and how parents' employment during adolescence relates to daughters' employment stability has received far less attention. Gender inequality at work is noted not only in gendered participation in paid work but also in women's much lower retention rate in the labor force compared with men. Therefore, our *first objective* is to extend existing research by examining how

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maternal employment during adolescence relates to daughters' employment stability in Egypt.

Given substantial gains in Egyptian women's education in recent decades (Assaad et al., 2018; Barsoum et al., 2014), women's education may be an important but under-explored channel through which their mothers' employment helps shape their employment outcomes. Daughters of working mothers are more likely to attain higher levels of education (Dunifon et al., 2013; Goldberg et al., 2008), and those who are better educated are more likely to retain their jobs, have long-term career goals, and receive on-the-job training (Becker, 1993; Cairo & Cajner, 2018), all of which can support women's employment stability. In Egypt, research has explored the implications of women's education for their ability to find a job and their earnings (Assaad et al., 2018; Barsoum et al., 2014). But we know far less about how education might shape women's labor force attachment and whether daughters' education mediates the relationship between maternal employment and their employment stability. Thus, our *second objective* is to investigate the extent to which the association between maternal employment and daughters' employment stability, if it does exist, is explained by the daughters' education.

We also leverage the Egyptian labor market's unique institutional features to identify sectorial differences in the relationship between mothers' employment and daughters' employment stability. The public and private sectors in Egypt differ in several aspects, including employment formalization, job desirability, workplace feminization, and educational requirements (Assaad & Barsoum, 2019; Barsoum, 2019, 2021; Constant et al., 2020). Examining sectorial differences can help reveal how the institutional configurations of the labor market condition the relationship between mothers' employment and daughters' employment stability. We expect these insights to be particularly crucial in the context of recent public sector downsizing in Egypt (Barsoum & Abdalla, 2020), which has meant fewer employment opportunities in what many Egyptians consider to be a desirable sector for female workers. Our *third objective*, therefore, is to explore sectorial differences in the relationship between mothers' employment and daughters' employment stability.

To achieve the above objectives, this study analyzes nationally representative longitudinal data from the Egypt Labor Market Panel Survey (ELMPS) and makes several contributions to research on gender and work. First, it moves beyond a dichotomized view of employment status by focusing on women's employment stability as a key site where gender inequality at work is (re)produced. Second, it advances research on women's employment stability from an intergenerational perspective. Third, it provides new insights into the role of institutional configurations in the

Egyptian labor market, a relatively under-studied context, in shaping the intergenerational transmission of labor market attachment.

Literature Review and Theoretical Considerations

Women's Employment Stability

A key contribution of this study is its conceptualization and operationalization of women's employment outcomes. Previous research on the intergenerational transmission of employment has focused primarily on women's employment at a single point in time (Sieverding, 2015; Van Putten et al., 2008) rather than on women's ability to sustain their employment over extended periods. Research has established that women's employment is more easily interrupted than that of men by life-course events, such as marriage and childbirth (Bian & Wang, 2019; Sieverding, 2015), and spousal career changes (Bian & Wang, 2019). Compared with men, women's employment stability is more often negatively affected by the unequal distribution of household tasks and care responsibilities (Carlson & Lynch, 2017; Cunningham, 2008). In Egypt, the family is set up in such a way that it supports men's stable employment, and men contribute little to domestic chores (Nazier & Ezzat, 2022). As Egyptian women's paid work is often arranged to fit around the demands of their family and the husband's career needs, their employment stability over the life course can be highly dynamic and subject to frequent interruptions.

While the strength of the association between mothers' and daughters' employment participation—often measured using a binary measure—has been a key focus in existing research, the stability of women's employment should also be viewed as a crucial aspect of gender equality at work for several reasons. Strong labor force attachment prevents human capital depreciation (Evertsson et al., 2016) and facilitates career progression as promotions are typically awarded based on continuous service and seniority (Assaad, 2014; Winkler, 2016). Spending time outside of the labor market can lead to skill obsolescence due to technological innovations and policy changes in the workplace (Evertsson et al., 2016). Stable employment, meanwhile, can contribute to up-to-date skill development and maintenance (Evertsson et al., 2016; Winkler, 2016). Women's employment stability also leads to higher wages (Winkler, 2016). Research suggests that Egypt's persistent gender wage gap partly emanates from gender differences in labor force attachment (Biltagy, 2014). Aside from pecuniary rewards, the incidence of poor mental health is lower among women in full-time or stable, long-term employment than among

those with lower employment stability (Zabkiewicz, 2010). Therefore, an investigation of the influence of mothers' employment on daughters' employment stability emerges as a clear research priority that will facilitate a better understanding of the intergenerational transmission of gender (in) equality in the labor market.

Intergenerational Transmission of Employment Stability: A Conceptual Model

The theoretical approach adopted in this study draws on an intergenerational perspective that views the family as a “gender depot” and parents as key socializing agents and resources (Goffman, 1977). We situate this perspective in the Egyptian society by focusing specifically on the intergenerational relationship between mothers' employment and daughters' employment stability. Within the intergenerational perspective, we test two hypotheses derived from resource and behavior modeling theories.

The conceptual model underpinning this study consists of three main components: mothers' employment during their daughters' adolescence, daughters' education, and daughters' subsequent employment stability. Linking these components, mothers' employment exerts both direct and indirect influences on their daughters' employment stability. Specifically, the indirect effect refers to the influence of maternal employment on daughters' education, and then the influence of the daughters' education on their employment stability. That is, daughters' education is a mediator between their mothers' employment and their own employment stability.

Direct Effects of Maternal Employment

The relationship between maternal employment and daughters' employment outcomes has been studied primarily with respect to employment status (McGinn et al., 2019; Sieverding, 2015). For instance, in Norway, mothers' employment is highly predictive of their daughters' full-time employment (Haaland et al., 2018). In the Netherlands, a positive intergenerational link was evidenced between mothers' employment and the likelihood that their daughters remain in work (Hendrickx et al., 2001). A mother's employment during her daughter's adolescence has also been found to be strongly associated with the daughter's employment status in non-Western contexts, such as Egypt (Sieverding, 2015) and Turkey (Durman-Aslan, 2020). Our research extends and contributes to this literature by focusing on women's employment stability as an important labor market outcome.

Previous research has proposed two complementary theories on how mothers' employment directly relates to their daughters' subsequent employment outcomes. On the one

hand, resource theory suggests that a range of resources – including human capital (Ermisch & Francesconi, 2000), financial resources (Corak & Piraino, 2011), and social capital (Jacob, 2008) – enable parents to invest in the goods and services that facilitate finding and maintaining long-term employment. Daughters of working parents usually face fewer obstacles in their search for suitable jobs (Jacob, 2008). Financial support provided by working parents, for example, may afford women more time to search and plan for the right career, instead of accepting any available employment out of economic necessity (Jacob, 2008). Moreover, social networks can help spread information about available or upcoming posts (Pavis et al., 2001). Employed parents are more likely than their unemployed counterparts to have established professional connections which can be valuable to their daughters' employment stability. Studies have shown that networks enhance employability and reduce voluntary quit rates, particularly when jobs are obtained through family members and relatives (Fernandez et al., 2000; Pavis et al., 2001).

On the other hand, role modeling theory posits that individuals' employment stability is influenced by gender-specific role models. In this view, daughters learn from observing and imitating their mothers more than their fathers (Bussey & Bandura, 1984). For example, behavior modeling has been observed in the search for similar employment opportunities or the pursuit of comparable occupations (McGinn et al., 2019; Sieverding, 2015). Conversely, exposure to unemployed mothers may reinforce the idea that women's employment conflicts with gender expectations or is nonessential. As a result, a daughter might opt out of employment in adulthood or remain weakly attached to the labor market (Sorhagen et al., 2019; Sieverding, 2015; Weinshenker, 2006). Research following the role modeling perspective has found that mothers' employment is generally more predictive of daughters' employment outcomes than that of their fathers (Hérault & Kalb, 2016; Sieverding, 2015).

Mothers' employment is particularly important during adolescence (Goldberg et al., 2008; Weinshenker, 2006). Adolescence is a time when girls develop a sense of individual personhood and begin to explore their future family and work roles (Mello, 2008; Weinshenker, 2006). As a result, access to resources and role models can influence an adolescent's occupational aspirations and expectations (Ashby & Schoon, 2010; McGinn et al., 2019; Sieverding, 2015). Daughters may develop higher career aspirations if they have access to resources that reduce obstacles to long-term employment and if they have positive role models, such as working mothers, that encourage greater labor force attachment. Researchers found that adolescent expectations strongly predict academic and job preparedness in

adulthood in the United Kingdom and the United States (Ashby & Schoon, 2010; Mello, 2008). The importance of adolescence has also been evidenced in Egypt, where programs targeting the development of adolescent girls have helped to equip them with the skills needed to obtain and maintain employment (Brady et al., 2007). It is reasonable, therefore, for us to focus on the influence of mothers' employment during their daughters' adolescence on the daughters' subsequent employment stability.

In summary, both resource and role modeling theories similarly predict that mothers' employment plays a positive role in bolstering daughters' employment stability, as specified in Hypothesis 1A. Furthermore, while resource theory has not clearly distinguished how resources derived from mothers' versus fathers' employment may influence their daughters' employment, role modeling theory emphasizes the greater importance of same-gender rather than different-gender lines in the intergenerational transmission of employment outcomes (McGinn et al., 2019), as detailed in Hypothesis 1B.

Hypothesis 1A: Mothers' employment during their daughters' adolescence is positively associated with the daughters' subsequent employment stability.

Hypothesis 1B: Compared with fathers' employment, mothers' employment is more strongly associated with their daughters' employment stability.

Indirect Effects of Maternal Employment via Daughters' Education

The indirect effects of maternal employment often operate through its effects on daughters' educational attainment. Existing research, generally in a cross-national context but also specifically in Egypt, has shown that increased maternal income leads to greater financial investment in their daughters' educational development, thus bolstering the daughters' educational outcomes (Afridi et al., 2016; Dunifon et al., 2013). Vikram et al. (2018) have shown that compared with unemployed mothers, employed mothers provide greater parental support in their children's education by being more involved in their schoolwork and attending parent-teacher meetings. Other studies suggest that working mothers develop alternative parenting strategies to support their children's educational progress, often by reducing time spent on housework (Bianchi et al., 2006) and making use of workplace resources, such as seeking advice on homework from co-workers and bringing children to work after school (Weiss et al., 2003). Maternal employment is also positively associated with children's educational aspirations. For example, Bozick et al. (2010) show that children whose

parents are employed in well-paying jobs have more stable and favorable attitudes towards school and learning, which yields better educational outcomes.

In turn, daughters' enhanced education, because of their mothers' employment, could lead to greater employment stability. Human capital theory posits that workers' productivity increases with their level of education (Becker, 1993). Education can increase women's market value – well-educated women can secure stable employment more readily than women with less education (Barsoum et al., 2014; Cairo & Cajner, 2018; Qian & Hu, 2021). A second strand of literature emphasizes the role of education in shaping women's attitudes and values. These studies show that education can cultivate gender-egalitarian beliefs, which help to promulgate female employment (Davis & Greenstein, 2009). As a result, compared with their less-educated counterparts, educated women are more likely to seek out meaningful work and are less likely to adhere to patriarchal norms that may dampen their professional aspirations.

In Egypt, parents often need to supplement their children's schooling in response to the deficiencies of education delivered by public schools. In this context, Egyptian families are seen to make both pecuniary and non-pecuniary investments to compensate for the shortcomings of the formal education system, such as high rates of teacher absenteeism and an inadequately designed curriculum (Sobhy, 2012). Informal instruction such as private tutoring has become an expected addition to children's educational expenses. Parents, and particularly mothers, are also often seen to assume the responsibility of home-schooling (Dancer & Rammohan, 2007) to help their children get the grades needed to advance towards a higher level of education, given the importance of secondary, post-secondary, and higher education in improving one's chances in the Egyptian labor market (Sieverding et al., 2019; Sobhy, 2012). If mothers' employment potentially enables greater investment in, engagement with, and enhanced strategies for their daughters' education, which later can become an important determinant of women's employment stability, we would expect daughters' educational attainment to mediate the association between maternal employment and their employment stability, as specified in Hypothesis 2:

Hypothesis 2: Daughters' education mediates the relationship between their mothers' employment and their employment stability.

The Egyptian Context: Public and Private Sector Differences

A further aim of this study is to explore whether, and to what extent, the relationship between maternal employment and daughters' employment stability differs by employment sector. The Egyptian labor market is made up of two distinct sectors: the public and private sectors. The public sector is more coveted by Egyptians due to a better provision of social services, shorter working hours, legal employment contracts, and greater job stability (Assaad & Barsoum, 2019; Barsoum, 2021; Constant et al., 2020). In contrast, the private sector is characterized by a high degree of informality, a greater risk of exposure to sexual harassment, particularly for women, and fewer family-friendly jobs (Barsoum, 2021; Wahba & Assaad, 2017). The type of employment women can, and most often do, engage in is also shaped by sector-specific sociocultural expectations. It is a common perception that the unsafe workplace environment in the private sector, along with difficulties in reconciling family life and motherhood with private sector work, makes public sector employment a more socially desirable option for Egyptian women (Barsoum, 2019, 2021).

These sectorial differences have traditionally skewed women's employment toward the public sector (Barsoum & Abdalla, 2020). As of 2016, among all women in formal employment, around 64% were employed in the public sector, compared with only 36% in the private sector (World Bank, 2018). The persistence of gender segregation in sectorial preference and concentration raises questions about whether the link between mothers' employment and their daughters' employment stability varies with the mother's and daughter's employment sector.

A mother's sector-specific employment can enhance their daughters' employment stability in the same sector via at least two mechanisms: role modeling and access to sector-specific resources. First, as sector-specific role models help normalize daughters' public or private sector employment, a mother's employment sector may, at an early life stage, shape their daughters' aspirations to work in the same sector (Olsson & Martiny, 2018). Second, maternal public and private sector work experience may enable the transmission of sector-relevant human capital, including information on organizational culture, job application strategies, and successful interview techniques (Pasquier-Doumer, 2013). Mothers' employment sectors also afford their daughters' access to differential social networks (Scoppa, 2009). Such networks could help daughters to sidestep public sector job queues or facilitate their entry into the private sector, where professional connections are a crucial resource (Assaad et al., 2018). Both mechanisms, then, suggest a positive association between mothers' employment sector and their

daughters' sector-specific employment stability, as specified in Hypothesis 3A.

Hypothesis 3A: Mothers' employment is strongly associated with their daughters' employment stability in the same sector but not in a different sector.

Recent literature on the evolution of public and private sector employment in Egypt has also focused on the role of education. Researchers have reported that the relationship between women's education and employment outcomes differs by employment sector (Assaad et al., 2018; Assaad, 2014; Salehi-Isfahani, 2012). Between 1961 and 1991, the Egyptian government implemented a policy of guaranteed public sector employment for all secondary school and university graduates. The state assurance of public sector employment was part of a nationalization campaign that led to a significant expansion of secondary and higher education and positioned the Egyptian state as the leading employer of educated labor (Assaad, 2014; Salehi-Isfahani, 2012). The percentage of women enrolled in secondary and tertiary education, respectively, increased considerably from 21% to 4% in 1971 to 89% and 40% in 2018 (World Bank, 2022a, 2022b). The discontinuation of the employment guarantee scheme in 1991 has made it more competitive for women to secure public sector work (Assaad & Barsoum, 2019). While 53% of women under 30 secured public sector jobs in 1998, only 30% did in 2018 (Barsoum & Abdalla, 2020). Despite this, investment in education is still made in the explicit hope of gaining access to stable public sector jobs (Assaad & Barsoum, 2019; Salehi-Isfahani, 2012).

Although the promise of public sector jobs increased the demand for formal secondary, post-secondary and higher qualifications, it did not increase or address the skills and competencies needed for private sector employment (El-Hamidi, 2010). While the Egyptian education system has been successful at producing graduates capable of obtaining and navigating public sector employment, this success is largely because credentials are the main prerequisite for government work (Barsoum, 2017; Salehi-Isfahani, 2012). Rather, different skills are needed to obtain private sector work (Salehi-Isfahani, 2012), and most of such skills are self-taught rather than imparted through formal schooling (Barsoum, 2017). As a result, the practical and symbolic importance of education as a gateway to stable employment in the public sector does not equally apply in the private sector. Against this backdrop, we expect daughters' educational attainment to be more important in the public than in the private sector as a channel through which their mothers' employment influences their employment stability:

Hypothesis 3B: Daughters' education plays a stronger role in mediating the relationship between their mothers' employment and their employment stability in the public sector than in the private sector.

The Present Study

Most prior research on the intergenerational transmission of women's labor market outcomes has relied on point-in-time measures of women's employment. In this study, we employ a longitudinal design to examine the association between mothers' employment during their daughters' adolescence and the daughters' subsequent employment stability in the understudied context of Egypt. To better understand the underlying mechanisms contributing to the intergenerational transmission of employment stability in the Egyptian labor market, we examine whether daughters' education mediates the relationship between their mothers' employment and their own employment stability. Recognizing the distinctive institutional features of the Egyptian labor market, we also distinguish between private sector and public sector employment, where the latter is characterized by more stable and family-friendly employment prospects, is often seen as the more desirable option for women, and hinges more closely on the completion of secondary or higher education. In sum, the study aims to gain systematic insights into the roles of intergenerational resource transfers and behavior role modeling in determining daughters' employment stability, how the daughters' education mediates the intergenerational processes, and how the institutional configurations of the different employment sectors moderate these processes.

Method

Participants

Our empirical analysis uses nationally representative data from the 2006, 2012, and 2018 waves of the ELMPS. Launched in 1998, the ELMPS is a publicly available longitudinal household survey conducted by the Economic Research Forum and Egypt's Central Agency for Public Mobilization and Statistics (Krafft et al., 2019). Households were selected using a multistage stratified probability sample, which included 750,000 households in 500 primary sampling units (PSUs). The sample was first separated into urban and rural strata. Each stratum was divided into governorates, where all rural villages and urban quarters were assigned a weight based on population size. One or more PSUs were then selected from each

village or urban quarter. The ELMPS tracks and interviews households included in previous waves and individuals who may have split from their original households (Krafft et al., 2019). For further information, see <https://erf.org.eg/labor-market-panel-surveys-lmps/>.

The ELMPS is well suited to this study because it (1) collects information on women's educational background, employment, and various socio-demographic characteristics, (2) collects data on respondents' parents' education and employment when the respondents were aged 15, and (3) allows us to track women's employment stability over an extended period.

To account for the possibility that motherhood is likely to disrupt women's employment, the sample was first restricted to women aged 18–49 years, as only this age group provided information on the number and gender composition of their children. This also coincides with the minimum age of 18 for employment in the public sector (Barsoum & Abdalla, 2020). We then limited our sample to 3,494 women who had completed their education at the time of the first interview and had been interviewed in all three survey waves. Finally, we removed 149 women with missing data on key predictors and control variables. The final sample for analysis included 3,345 women, each of whom was observed three times in 2006, 2012, and 2018 (hereafter referred to as T_1 , T_2 , and T_3 , respectively). Table 1 presents the sample characteristics.

Measures

Outcome Variable

Daughters' Employment Stability and Sector. The ELMPS asked respondents whether they had participated in any employment during the week before the survey. Participation in employment is measured using the market definition of economic activity, which includes being a wage worker, an employer, or self-employed but excludes subsistence workers (Assaad & Krafft, 2016). Based on the respondents' employment status across the three survey waves over a 12-year period, we created an ordinal variable using the following coding: (0) unemployed across all three waves (62.6%); (1) employed in only one of the three waves (20.1%); (2) employed in two of the three waves (9.3%); and (3) employed across all three waves (8.0%).

Notably, following previous research (Assaad & Krafft, 2016; Sieverding et al., 2019), the "unemployed" category includes both those who were fully unemployed and those who were unemployed but actively seeking work. For women who were employed in two waves, the temporal pattern of their employment can be heterogeneous. Thus, as a robustness check, we took turns to exclude women who

Table 1 Descriptive Statistics for the Full Sample of 3,345 Respondents Across Three Timepoints

Variables	Minimum	Maximum	Mean/% (SD)
<i>Key variables</i>			
Respondent employment stability			
Consistently unemployed	0	1	62.6
One-period employed	0	1	20.1
Two-period employed	0	1	9.3
Three-period employed	0	1	8.0
Respondent employment sector			
Consistently unemployed	0	1	62.6
Consistently public sector	0	1	10.0
Consistently private sector	0	1	25.8
Sector switcher	0	1	1.6
Respondent below secondary education (ref: secondary education and above)	0	1	44.9
Mother employed at 15 (ref. = no)	0	1	16.5
Mother employment sector at 15			
Unemployed	0	1	83.5
Employed (public sector)	0	1	4.2
Employed (private sector)	0	1	12.3
<i>Control variables</i>			
Father employed at 15 (ref. = no)	0	1	98.0
Mother below secondary education (ref: secondary education and above)	0	1	79.6
Father below secondary education (ref: secondary education and above)	0	1	53.2
Birth year	1968	1988	1978.6 (5.4)
Sibship size at T ₁	1	10	4.8 (2.0)
Number of children at T ₁	0	7	1.6 (1.7)
Changes in number of children (T ₁ –T ₃)			
No change	0	1	27.6
Increased	0	1	68.6
Decreased	0	1	3.8
Age of youngest child at T ₁			
No children	0	1	29.4
0–2	0	1	34.5
3–5	0	1	24.8
6+	0	1	11.3
Marital status at T ₁			
Never married	0	1	19.9
Married	0	1	78.0
Divorced or widowed	0	1	2.1
Changes in marital status (T ₁ –T ₃)			
No change	0	1	79.6
Married	0	1	15.0
Divorced or widowed	0	1	5.4
Urban resident at T ₁ (ref. = rural)	0	1	41.7

Note. SD = Standard deviation.
 Ref. = Reference category.
 T₁ = 2006, T₃ = 2018. For dummy variables, 0 = No and 1 = Yes.
 Mean values reported for continuous variables and percentages reported for dummy variables.
 Percentages may not add up to 100% due to rounding.

were employed in (1) T₁ and T₂ or T₂ and T₃, (2) T₁ and T₃ or T₂ and T₃, and (3) T₁ and T₃ or T₁ and T₂ from our analysis; and in every instance, the results were consistent with those reported in this article. While our measure serves as a proxy for women's long-term employment stability, it is

worth noting that it does not capture women's employment changes between the survey waves.

We further measured the respondents' employment sector during our observation period. Most respondents who were employed in more than one survey wave stayed in the same employment sector (i.e., 10.0% for the public sector,

25.8% for the private sector). We discuss our handling of a small number of women (1.6%) who switched between public and private sector employment in the section on robustness checks.

Predictor Variables

Mothers' Employment Status and Sector. The ELMPS asked the following questions: "What was your mother's main employment status when you were 15 years of age?" and "In what sector did your mother work?" We first created a dummy variable to distinguish mothers' employment status (1 = employed, 16.5%). We then created a second categorical variable to further distinguish mothers' employment sector: (1) unemployed (83.5%), (2) employed in the public sector (4.2%), and (3) employed in the private sector (12.3%). As women's reports of their mother's employment status and sector are consistent across all three waves in over 98% of the cases, we used the responses from T_1 .

Daughters' Education. The ELMPS captured respondents' self-reported highest level of education using eight categories: "illiterate," "reads and writes," "primary," "preparatory," "general secondary," "vocational secondary," "post-secondary institute," and "university or above." To avoid small cell sizes and ensure that our measure is substantively meaningful in the Egyptian context, we recoded these categories into two groups: (1) below secondary education (44.9%, including illiterate, reads and writes, and primary school) and (2) secondary education and above (55.1%, including general secondary, vocational secondary, post-secondary institute, undergraduate, and postgraduate education). Egypt's contemporary educational system was developed alongside a growing demand for government jobs. When the employment guarantee scheme was introduced in 1961, a minimum level of education, primarily secondary education or higher, was required as a key precondition for public sector employment (Assaad et al., 2018). A long-standing emphasis on credentials, particularly in the public sector, means that secondary and higher education matters for Egyptian women's employment. As a relatively small proportion of women employed in the public sector do not have a secondary or higher education, we used the larger "secondary education and above" group as the reference category to ensure stable model estimation, particularly in our sector-specific analyses. As respondents who were still in education at the time of the first interview were removed from the sample, the daughters' level of education is a time-constant variable.

Control Variables

We controlled for a range of demographic and socio-economic characteristics that may affect employment stability and its relation to maternal employment (McGinn et al., 2019; Sieverding, 2015; Van Putten et al., 2008). We included both a measure from the baseline year (T_1) and a measure capturing any subsequent changes. We traced changes that occurred between T_1 and T_3 , and any fluctuations between T_1 and T_2 or T_2 and T_3 were captured based on an overall comparison between T_1 and T_3 . For instance, if a woman reported having two children in T_1 , three children in T_2 , and one child in T_3 , then they were recorded as having had a decrease in the number of children between T_1 and T_3 . To ensure the robustness of our results, we reran all analyses excluding the small percentage of women ($\approx 3\%$) who experienced fluctuations between T_1 , T_2 , and T_3 . These analyses yielded results that are consistent with those reported in this article.

Fathers' Employment Status. To distinguish the effects of behavior role modeling and parental resources on women's employment stability, we controlled for fathers' employment status. The survey asked the question: "What was your father's main employment status when you were 15 years of age?" The responses were recorded using a dummy variable (1 = employed, 98.0%). In our earlier analysis, we tested a more detailed categorization of fathers' employment status and sector, distinguishing between unemployed, employed in the private sector, and employed in the public sector. Given that fathers' employment sector does not make a difference to their daughters' employment stability and its inclusion does not improve the overall model fit, we used the former dummy measure for parsimony. As women's reports of their father's employment status are consistent across all three waves in over 99% of cases, we used the responses from T_1 .

Parents' Education. Parental education can affect their children's educational aspirations and achievements and sector-specific work orientations in Egypt (Sieverding, 2015). The survey captured the highest level of education achieved by the respondents' mothers and fathers, respectively, using the same categories as those for the respondents' education. For this time-constant variable, we recoded the T_1 responses into two categories as in the case of daughters' education: (1) below secondary education (79.6% and 53.2% for mothers and fathers, respectively), and (2) secondary education and above (reference category; 21.4% and 46.8% for mothers and fathers, respectively).

Sibship Size. Sibship size has been shown to influence intra-family resource allocation, which could influence children's educational and subsequent employment outcomes (Hu & Shi, 2020; Trinitapoli et al., 2014). Therefore, we

included a continuous measure of the total number of siblings at T_1 . Our earlier analyses controlled for the gender composition of siblings, but as the composition variable was not statistically significant at the 10% level in any of the models and did not contribute to increasing the overall model fit, it was not included in the final analysis.

Number of Children. The presence of children could affect women's ability to remain employed. Prior research shows that an increase in the number of children is negatively associated with women's labor force participation (Bongaarts et al., 2019). As all ever-married women aged 18–49 were asked to report their total number of children, we included a continuous measure of the total number of children at T_1 . Since premarital sex is strictly forbidden in Egypt (Inhorn, 2018), never-married women were recorded as childless. We used a further categorical variable to capture changes in the number of children between T_1 and T_3 : no change (27.6%), increased (68.6%), and decreased (3.8%). Fewer than 2% of the women experienced a fluctuation in the number of children between T_1 and T_3 .

Age of Youngest Child. The burden of childcare on women varies with children's age (Bongaarts et al., 2019). Based on responses from T_1 , we captured the presence and age of the youngest child using four categories that correspond to children's access to nursery and school and thus differential care needs in the family: (1) no children (29.4%), (2) infants (0–2 years, 34.5%), (3) pre-schoolers (3–5 years, 24.8%), and (4) school-age children (6 years and above, 11.3%). The effects of newborns after T_1 would have been captured by the change variable for the number of children.

Marital Status. As married women are more likely to be unemployed or out of the labor force altogether than their single counterparts in Egypt (Assaad & Krafft, 2016), women's marital status at T_1 was measured using three categories: (1) never married (19.9%), (2) married (78.0%), and (3) divorced or widowed (2.1%). We also used a categorical variable to measure changes in women's marital status between T_1 and T_3 : no change (79.6%), married (15.0%), and having become divorced or widowed (5.4%). Less than 1% of the women experienced a fluctuation in marital status between T_1 and T_3 .

Daughters' Birth Year. Employment opportunities and policies such as the public sector employment guarantee scheme vary across birth cohorts (Barsoum & Abdalla, 2020). Therefore, we controlled for women's birth year, which ranged from 1968 to 1988, using a continuous measure.

Urban/Rural Residence. The use of formal employment contracts and thus stable employment is more prevalent in urban than in rural Egypt (Barsoum et al., 2014). We used a dummy variable to distinguish between urban (41.7%) and rural residents (58.3%). Fewer than 1% of women had

moved between rural and urban areas across the survey waves, thus no change variable was included.

Analytic Strategy

We employed generalized structural equation models (GSEM) to examine whether the relationship between mothers' employment and daughters' employment stability is mediated by daughters' education and moderated by employment sector. GSEM is suitable for our analysis because it allows one to fit several models simultaneously to measure direct, indirect, and total effects. As model fit indices for weighted GSEM are currently unavailable in Stata, we did not use sampling weights in the models.

First, to test the mediation role of daughters' education, we predicted daughters' employment stability as a function of their own education and their mothers' employment status when they were aged 15. In turn, daughters' education was also predicted by mothers' employment status. We used a logit link function with a Bernoulli distribution for daughters' education and an ordinal logit link function with an ordinal distribution for daughters' employment stability.

Then, to examine the moderation effect of employment sector, we divided the sample into two subsamples based on the respondent daughters' employment sectors – one including those working in the public sector (plus those unemployed) and the other including those working in the private sector (plus those unemployed). The model setup remained unchanged except for our maternal employment variable, which differentiated between maternal public and private sector employment. We conducted F tests to compare the coefficients across the subsamples. All models included all control variables listed in Table 1. Variance inflation factor ($VIF < 3$) tests indicated no severe multicollinearity in the models (Li, 2013).

Finally, to facilitate the interpretation of results, we used the Karlson, Holm, and Breen (KHB) method to decompose the total effect of mothers' employment status and sector on daughters' employment stability into direct effects and indirect effects via the daughters' education. The KHB method permits the assessment of mediators in nonlinear regression models (Breen et al., 2013), which is well suited for our ordinal measure of employment stability. A technical discussion of the KHB method is presented in Section A of the online supplement.

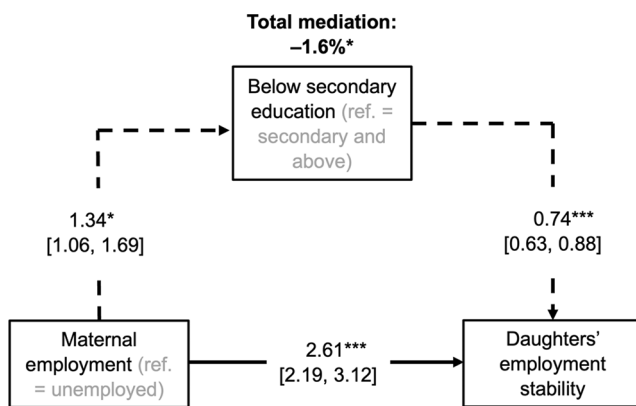


Fig. 1 Generalized Structural Equation Model of Maternal Employment, Daughters' Education, and Daughters' Employment Stability. Note. Odds ratios reported, with 95% confidence intervals in parenthesis. Models include all control variables listed in Table 1. See Online Supplement B for full model results. We indicate the results of the Karlson, Holm, and Breen (KHB) decomposition using bold font, i.e., the percentage of the association between mothers' employment and daughters' employment stability explained by daughters' education. See Table 2 for detailed results from the KHB analysis.

* $p < .05$; *** $p < .001$ (two-tailed).

Results

Direct Effects of Maternal Employment

Figure 1 presents the results from the GSEM for the pathways between maternal employment, daughters' education, and daughters' employment stability. In Fig. 1, we report the odds ratios (OR), 95% confidence intervals for the ORs, and statistical significance levels for each pathway. In Table 2, we further present the KHB decompositions and model fit statistics. To conserve space, the full GSEM results, including those for the control variables, are presented in Section B of the online supplement.

Hypothesis 1A, which predicted a positive association between mothers' employment during one's adolescence and daughters' employment stability, was supported. For the full sample, the inclusion of maternal employment further to the control variables improved the overall model fit (ΔBIC [Bayesian information criterion] = -98 , ΔLL [Log likelihood] = 53). Daughters with employed mothers were more likely to have greater employment stability ($\text{OR} = 2.61$, $p < .001$) than those whose mothers were unemployed. The results also supported Hypothesis 1B, derived from the theory of gendered role modeling, that mothers' employment is more strongly associated with their daughters' employment stability than is fathers' employment. Compared with that of the mother's employment, the coefficient for the father's employment was much smaller in size and was not statistically significant at the 5% level ($\text{OR} = 0.78$, $p = .38$). These findings lend support to resource and particularly role

modeling theories, suggesting a direct link between mothers' employment and their daughters' subsequent employment stability, through either a process whereby daughters imitate the employment behavior of their mothers or resource transfer from mothers to daughters, or a combination of both.

Indirect Effects of Maternal Employment via Daughters' Education

Based on the KHB decomposition analysis, Fig. 1 also presents the total proportion of the association between mothers' employment and daughters' employment stability that is mediated by the daughters' education. Detailed results for the KHB decomposition can also be found in Table 2. Hypothesis 2, that daughters' education mediates the association between maternal employment and their employment stability, was not supported. Including daughters' education in addition to maternal employment and control variables hardly improved the overall model fit ($\Delta\text{BIC} = -2$). The negative percentage contribution of daughters' education (-1.6%) in the KHB analysis, often known as "inconsistent mediation" (MacKinnon et al., 2007), shows that daughters' education does not mediate the association between mothers' employment and daughters' employment stability in the overall sample.

Public and Private Sector Differences

Figure 2 presents the pathways between mothers' employment sector, daughters' education, and daughters' employment stability in the public sector (Panel A) and in the private sector (Panel B). An F test was performed to ascertain the level of statistical significance for the difference between the coefficients for the same pathway in Panels A and B. The full model results are reported in Section B of the online supplement.

Hypothesis 3A, that mothers' employment in a given sector is associated with their daughters' employment stability in the same sector but not in a different sector, was supported. Panel A of Fig. 2 shows that daughters with mothers working in the public sector were over three times more likely ($\text{OR} = 3.37$, $p < .001$) to experience greater employment stability in the public sector, compared with those with unemployed mothers. By contrast, the results in Panel B of Fig. 2 show that mothers' public sector employment had no statistically significant cross-sector impact at the 5% level on daughters' employment stability in the private sector ($\text{OR} = 1.73$, $p = .08$). A further F test showed that the coefficients for maternal public sector employment in predicting women's employment stability in the public and private sectors were statistically different at the 1% level.

Table 2 Generalized Structural Equation Models and KHB Decomposition Analysis of Total, Direct, and Indirect Effects of Maternal Employment on Daughters' Employment Stability

Effects	All		Daughters' public sector employment stability		Daughters' private sector employment stability	
	<i>B</i> (<i>SE</i>)	% total effect	<i>B</i> (<i>SE</i>)	% total effect	<i>B</i> (<i>SE</i>)	% total effect
<i>Mother employed in both sectors (ref. = unemployed)</i>						
Total effect	0.94*** (0.09)	—				
Direct effect	0.96*** (0.09)	—				
Total indirect effect via daughters' education (ref. = secondary and above)	−0.02* (0.01)	−1.6				
<i>Mother employed in public sector (ref. = unemployed)</i>						
Total effect			1.30*** (0.20)	—	0.53 (0.28)	—
Direct effect			1.21*** (0.21)	—	0.55 (0.28)	—
Total indirect effect via daughters' education (ref. = secondary and above)			0.09** (0.02)	6.9	−0.02 (0.01)	−3.8
<i>Mother employed in private sector (ref. = unemployed)</i>						
Total effect			0.37 (0.23)	—	1.02*** (0.11)	—
Direct effect			0.47* (0.23)	—	0.99*** (0.11)	—
Total indirect effect via daughters' education (ref. = secondary and above)			−0.10 (0.13)	−28.8	0.02 (0.02)	2.1
<i>Model fit indices</i>						
LL (1: controls only)	−5,201		−2,637		−4,207	
BIC (1: controls only)	10,696		5,556		8,702	
LL (2: 1 + maternal employment)	−5,148		−2,615		−4,154	
BIC (2: 1 + maternal employment)	10,598		5,543		8,628	
LL (2 + daughters' education)	−5,139		−2,537		−4,150	
BIC (2 + daughters' education)	10,596		5,396		8,628	
<i>N</i> (women, each observed 3 times)	3,345		2,483		3,010	

Note. Ref. = Reference category. LL = Log likelihood. BIC = Bayesian information criterion. Structural equation models with Karlson, Holm, and Breen (KHB) decomposition using an ordinal specification for daughters' employment stability. Models include all control variables listed in Table 1—the results for which are shown in Online Supplement Section B. The samples for the analyses of women's public sector and private sector employment both include the unemployed.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).

Similarly, the influence of maternal private sector employment was limited to daughters' employment stability in the private but not the public sector. As shown in Panel A of Fig. 2, mothers' private sector employment was not associated with daughters' employment stability in the public sector ($OR = 1.61$, $p = .06$). By contrast, the results in Panel B of Fig. 2 show that daughters with mothers working in the private sector were more than twice as likely ($OR = 2.70$, $p < .001$) to experience greater employment stability in the private sector, compared with those with unemployed mothers. The results of an F test indicate that the coefficients for maternal private sector employment in predicting women's employment stability in the public and in the private sector were statistically different at the 1% level.

Hypothesis 3B, which predicted that daughters' education would play a stronger role in mediating the relationship between their mothers' employment and their own employment stability in the public than in the private sector, was supported. The results of the KHB decomposition by the subsamples of women's employment sector are presented in bold font in Panels A and B of Fig. 2, and detailed coefficients from the decomposition analysis are presented in Table 2. The results show that the association between maternal public sector employment and daughters' employment stability in the public sector was partially mediated by the daughters' education. Specifically, daughters' education was a statistically significant mediator ($p < .01$) and explained 6.9% of the association between maternal public sector employment

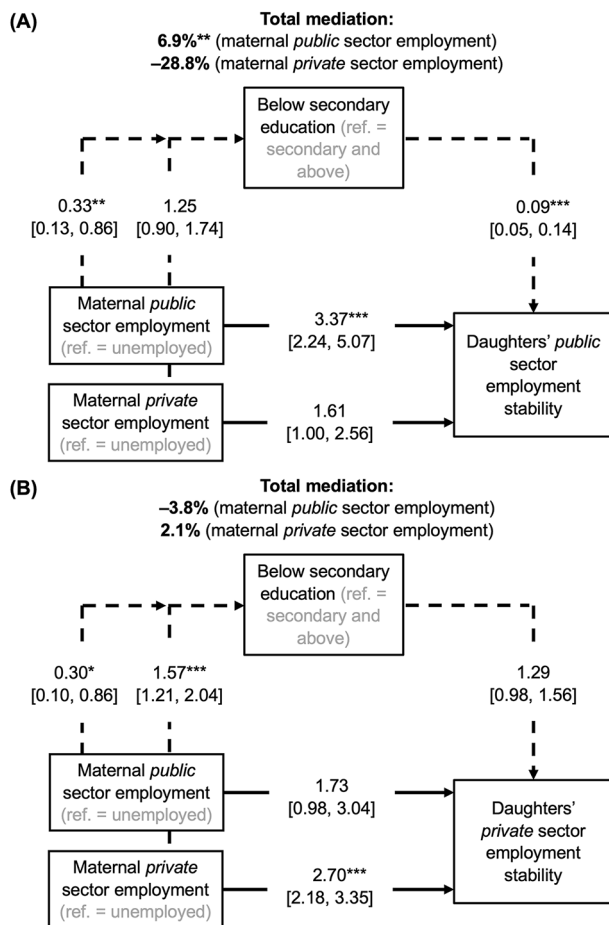


Fig. 2 Generalized Structural Equation Model of Daughters' Employment Stability in (A) The Public Sector and (B) The Private Sector

Note. Odds ratios reported, with 95% confidence intervals in parenthesis. Models included all control variables listed in Table 1. See Online Supplement B for full model results. We indicate the results of the Karlson, Holm, and Breen (KHB) decomposition using bold font, i.e., the percentage of the association between mothers' employment and daughters' employment stability explained by daughters' education. See Table 2 for detailed results from the KHB analysis. The samples for the analyses of daughters' public sector and private sector employment both included unemployed women.

* $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).

and their public sector employment stability. In comparison, there was no statistically significant mediating effect of daughters' education in the association between maternal private sector employment and daughters' public sector employment stability (-28.8% , $p = .39$). Moreover, daughters' education is not associated with their employment stability in the private sector ($OR = 1.29$, $p = .06$), nor does it mediate the association between maternal employment and daughters' private sector employment stability.

Robustness Checks

We conducted sensitivity analyses to ensure the robustness of our findings, and the detailed results are presented in Section C of the online supplement. First, childbirth is likely to disrupt women's employment and thus undermine women's employment stability. As unpaid maternity leave in Egypt usually lasts for up to two years (International Labour Organization, 2021), we re-ran all models while excluding women who reported a child between the age of 0–2 years at T_1 . The results were consistent with those reported in this article. Second, a small number of respondents ($N < 100$) with two and three employment spells had experienced changes in their employment sector. These respondents differed in some observable characteristics from those who remained in the public or private sector only. These sector switchers were generally better-educated, most were married, and more likely to have reported having an unemployed mother. In our analyses, these cases were retained and grouped, first, with those who had experienced either two or three employment spells in the public sector subgroup analyses and then again in the private sector subgroup analyses. A robustness check excluding these sector switchers from the analysis did not alter our substantive findings.

Discussion

Drawing on the analysis of nationally representative longitudinal data spanning 12 years, this study presents new evidence on the intergenerational association between maternal employment and daughters' employment stability in Egypt. The findings provide fresh insights into the intergenerational transmission of employment stability among Egyptian women and the role of education in this transmission. With particular attention to the distinctive configurations of the Egyptian labor market, we also highlight and show sectorial differences in how maternal employment relates to their daughters' employment stability.

How Does Maternal Employment Influence Daughters' Employment Stability?

The findings show that the employment stability of the women in our sample was higher when they had a mother who was employed during their adolescence, compared with those whose mothers were unemployed. Compared with fathers' employment, mothers' employment was found to be a stronger predictor of daughters' employment stability. This is consistent with role modeling theory which proposes that daughters' employment stability is shaped primarily by same-gender role models. Furthermore, resource theory

posits that working parents may influence their daughters' employment outcomes via enhanced resource investment in their daughters' education and employment. Our findings only lend weak support to this theory in that the resources that can supposedly be derived from fathers' employment are not found to bolster daughters' employment, and daughters' education only mediated a very small fraction of the influence of maternal employment, primarily in the public sector. At least, there is no clear evidence that intergenerational resource transfer underpinning the reproduction of employment stability is channeled through investment in daughters' education.

By focusing on employment stability, our findings suggest that previous research, confined to point-in-time measures of women's employment outcome, provides an incomplete picture of the role maternal employment plays in women's long-term labor market attachment. Our findings show that maternal employment during adolescence can have a long-lasting impact on their daughters' future labor force attachment, in terms of their daughters' ability to sustain their labor force participation over an extended period. Our findings thus provide counter evidence to some previous studies that view maternal employment as detrimental to children's socioeconomic outcomes and the overall well-being of the family (Ruhm, 2008; Waldfogel et al., 2002). However, it is important to note that the timing of maternal employment, i.e., whether it occurs during the earlier years of their children's lives or adolescence, may exert different influences on later outcomes for the child. The focus of this study was on maternal employment during their daughters' adolescence as the formative phase in which work values and gender roles are beginning to mature. Future research on the relationship between mothers' employment and daughters' employment stability should further compare different timings of maternal employment.

Institutional Configurations of Intergenerational Processes

Our findings reveal that in Egypt there is a considerable sectorial difference in the relationship between maternal employment and daughters' employment stability. The findings suggest that maternal employment in a given sector provides daughters with a considerable advantage in remaining in employment in that same sector, which supports sector-specific role modeling and resource effects on women's employment stability. Therefore, our findings suggest that the intergenerational transmission of sector-specific employment stability from mothers to daughters reinforces sectorial segregation in the Egyptian labor market and thus reproducing inequalities associated with sectorial divides.

This study also provides new insights into how daughters' education mediated the association between maternal employment and their employment stability in different employment sectors. In the public sector, daughters' education plays a small mediating role: it explained 6.9% of the association between maternal public sector employment and daughters' public sector employment stability. In the private sector, however, daughters' education was not found to be a significant mediator. Therefore, maternal investment in daughters' education may be one way to improve the daughters' employment stability in the public sector but not necessarily in the private sector. Our findings, therefore, also show that the pathways through which maternal employment relates to daughters' employment stability hinge on specific configurations in the labor market that value and reward women's education.

Specifically, our findings reflect critically on the Egyptian education system and its role in supporting women's employment stability. The rapid expansion of Egypt's education system, dating back to the 1970s, took place alongside a then increasing demand for public sector and civil service workers. Indeed, many have argued that while increasing levels of education reversed the gender gap in educational attainment, the education itself only provided the skills and credentials needed to obtain public sector jobs but not the range of skills required for private sector work (Assaad et al., 2018; Barsoum & Abdalla, 2020; Constant et al., 2020). As a result, women's education was primarily rewarded through the government's public sector employment guarantee scheme (Barsoum & Abdalla, 2020). In this context, it is not entirely surprising that in the private sector, a lack of structural reward for women's education means that education is tangential in determining their employment stability and in the intergenerational transmission of labor market outcomes. Thus, our study adds new evidence to the argument that the coupling of Egypt's educational expansion with the employment guarantee scheme could have long-lasting, intergenerational implications for sectorial gender segregation and gender inequalities in employment stability.

Limitations and Future Research Directions

Our findings need to be interpreted in the context of a few limitations. First, our analyses focused on the employment patterns of women first interviewed in 2006, most of whom were born in the late 1970s and early 1980s. The extent to which our findings apply to more recent cohorts of women, whose long-term employment and career paths are still developing, remains an open empirical question. Second, our analyses were based on women's employment status in the week before each interview. Thus, short-term changes in women's employment status outside the ELMPs

measurement coverage were not captured. Nonetheless, our analysis more generally captures women's long-term labor market attachment. Third, due to data limitations, we did not test the possible relationship where women's employment preferences might determine their educational outcomes. Previous research found that women who hold future expectations of economic inactivity or are willing to accept less permanent or low-paying jobs are less incentivized to succeed academically (Wiswall & Zafar, 2018). Measuring women's employment intentions and examining endogenous self-selection could be an important agenda for future research (Sieverding, 2015; Weer et al., 2006). Fourth, building on our analyses, future research could incorporate other potential mediators of the association between maternal employment and daughters' employment outcomes, including risk attitudes toward job security and stable benefits (Buurman et al., 2012) and public service motivation (Barsoum, 2021). Finally, given the recent prevalence of fixed-term and temporary contracts, it would be beneficial for future research to explore other, more nuanced forms of employment instability.

Practice Implications

This research has several important implications for both policy and practice. First, our findings illustrate that women are more likely to imitate the employment behavior of their mothers than that of their fathers. Therefore, interventions should ensure that mothers are informed of how their employment, or lack thereof, can influence their daughters' subsequent labor market participation and attachment. Policies and initiatives that support working mothers could help support employment stability across generations of women in the long term. Second, our finding concerning the sector-specific mother-daughter transmission of employment stability suggests that intergenerational relations within the family should be a key area where intervention is needed to break sectorial segregation in the Egyptian labor market. Furthermore, the differential roles of education in shaping women's employment stability and mediating the role of maternal employment in the private and public sectors suggest a need for educational reforms that better equip women with the skills and credentials required for private sector (rather than just public sector) employment. It also problematizes labor market policies (e.g., the public sector employment guarantee scheme) that unequally recognize (women's) credentials and skills along sectorial lines. Given the recent downsizing of the Egyptian public sector, our findings suggest a need for re-orientation and coordination of education and labor market policies to develop and recognize women's private sector skills and credentials.

Conclusion

This study highlights employment stability as a key area of gender (in)equality in the labor market and shows the importance of mothers' employment in shaping their daughters' subsequent employment stability. Our findings support the theory of same-gender role modeling between mothers and daughters in the context of employment. Furthermore, focusing on Egypt – an understudied context, our findings underline the importance of specific institutional configurations of the educational system and labor market in giving rise to sector-specific intergenerational role modeling and resource transfer. Overall, this study offers novel evidence for the crucial role played by intergenerational relations in (re)producing labor market gender inequalities and sectorial segregation in Egypt.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s11199-022-01326-w>.

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Author Contribution Both authors contributed to the study's conception and design. The first author conducted data analysis. Both authors drafted and revised the manuscript. Both authors read and approved the final manuscript.

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Data Availability The data analyzed in this research are available from the Economic Research Forum (www.erfdataportal.com). Restrictions apply to the availability of these data, which were used under license for this study. The authors are solely responsible for the analysis and interpretation of the data presented in this article.

Declarations

Ethics Approval This study is based on data collected by the Economic Research Forum and the Egyptian Central Agency for Public Mobilization and Statistics. The survey data were anonymized, and institutional ethics approval was not required.

Conflicts of Interest/Competing Interests The authors have no conflicts of interest to declare.

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