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The Evolution of Labor Supply in Egypt through 2023

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Abstract

Using data from the 2023 and earlier waves of the Egypt Labor Market Panel Survey, this paper investigates trends in labor supply in Egypt, with a particular focus on declines in participation and employment rates among both men and women over time. The paper explores the demographic drivers of labor supply, including fertility and population growth, as well as trends in educational attainment. Analyses of labor supply focus on labor force participation, employment, and unemployment by key demographic characteristics: sex, age, and education. A particular focus of the paper is understanding the evolution of the share of youth not in education, employment, or training (NEET). The findings indicate that falling unemployment rates in Egypt are not the result of improved employment prospects, but due instead to temporarily reduced demographic pressures in the labor market and falling labor force participation among both men and women. Men are taking longer to transition to employment after school as indicated by increasing NEET and joblessness rates. Educated women are increasingly withdrawing from the labor force.

Keywords: Labor force, employment, unemployment, Egypt.
JEL Classifications: J00, J21, J64, J11.

ملخص

باستخدام بيانات من المسح التتبعي لسوق العمل في مصر لعام 2023 والموجات السابقة، تبحث هذه الورقة في اتجاهات عرض العمالة في مصر، مع التركيز بشكل خاص على الانخفاض في معدلات المشاركة والتوظيف بين كل من الرجال والنساء بمرور الوقت. تستكشف الورقة الدوافع الديموغرافية لعرض العمالة، بما في ذلك الخصوبة والنمو السكاني، فضلاً عن اتجاهات التحصيل العلمي. تركز تحليلات عرض العمالة على مشاركة القوى العاملة، والعمالة، والبطالة حسب الخصائص الديموغرافية الرئيسية: النوع، والعمر، والتعليم. ينصب تركيز الورقة بشكل خاص على فهم تطور حصة الشباب اللذين هم ليسوا في التعليم أو التوظيف أو التدريب (NEET). تشير النتائج إلى أن انخفاض معدلات البطالة في مصر ليس نتيجة لتحسن فرص العمل، ولكن يرجع بدلاً من ذلك إلى انخفاض الضغوط الديموغرافية مؤقتًا في سوق العمل وانخفاض مشاركة القوى العاملة بين كل من الرجال والنساء. يستغرق الرجال وقتًا أطول للانتقال إلى العمل بعد المدرسة كما يتضح من زيادة اللذين هم ليسوا في التعليم أو التوظيف أو التدريب ومعدلات البطالة. تشير النتائج أيضاً إلى أن النساء المتعلمات ينسحبن بشكل متزايد من القوى العاملة.

1. Introduction

This paper makes use of the 2023 wave of the Egypt Labor Market Panel Survey (ELMPS) to ascertain developments in demographic trends in Egypt and labor supply behavior. The ELMPS 2023 is the fifth wave of a longitudinal survey carried out by the Economic Research Forum since 1998 in cooperation with the Egyptian Central Agency for Public Mobilization and Statistics (CAPMAS).[4]

In 2023, Egypt finds itself at a specific point in its demographic trajectory where demographic pressures on the labor market have been modest for the past decade but are on the verge of increasing substantially. The "echo" generation – the sons and daughters of the "youth bulge" generation – whose size was further boosted by increases in fertility in the mid-2000s is about to reach its peak labor market entry age in the next decade (Krafft and Assaad 2014a; Assaad 2022). Since unemployment in Egypt is primarily a labor market entry phenomenon (Krafft and Assaad 2014b; Assaad and Krafft 2023), these demographic developments coupled with changes in participation behavior have contributed to falling unemployment rates in the recent past (Krafft, Assaad, and Keo 2022). The apparent paradox of declining unemployment rates at a time of falling employment rates among both men and women can be explained by falling participation rates among both men and women since the early 2010s (Krafft, Assaad, and Keo 2022; Assaad et al. 2020).

The decline in male participation occurred mostly among younger men but we show it is now increasingly spreading to older ages. It is occurring at most education levels and is not associated with increasing educational enrollments. Instead, we see increasing rates of young men not in education, employment or training (NEET) and increasing joblessness among non-enrolled young men. This is a worrisome trend that suggests deep discouragement with labor market prospects and an increasingly protracted transition from school to work.

The decline in female participation is affecting women of all ages, but particularly those who are educated at the intermediate level or higher. In particular, the decline appears to have accelerated substantially among university educated women between 2018 and 2023. Traditionally, women's participation in Egypt increases noticeably once the intermediate level of education is attained, leading to an expectation that as more women achieve these levels, female participation would rise. But in what has become known as the "MENA paradox," the positive compositional effect of educational attainment on female participation is more than counteracted by declines in participation among educated women, leading to an overall decline in female participation. Assaad et al. (2020) attribute the decline to a deteriorating opportunity structure for educated married

[4] For more information about ELMPS 2023, please see Assaad and Krafft (2024). The data will become publicly available in October 2024 (OAMDI 2024).

women who had in the past worked in large numbers in the public sector, but are now eschewing participation as opportunities in the public sector dwindle.

This paper explores in detail the key drivers of labor supply behavior in Egypt through 2023. In Section 2, we review the demographic trends affecting labor supply in Egypt, including trends in the age structure of the population, population growth, and fertility. In section 3, we review educational attainment and enrollment trends. In section 4, we examine labor force participation trends and the pattern of participation by sex, age, education, and region. In section 5, we analyze the evolution of employment rates and the pattern of employment by sex, age, education, region, and family structure (for women). Section 6 presents an analysis of unemployment trends and section 7 discusses NEET and joblessness among youth. Section 8 concludes.

2. Demographic pressures on labor supply

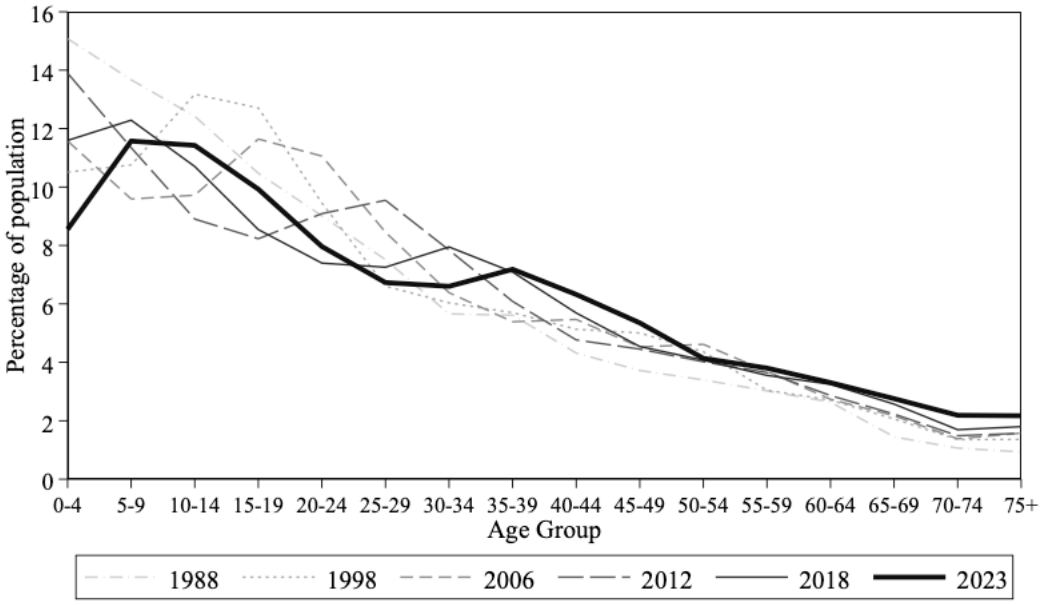
2.1. Population trends

The most distinctive trend in Egypt's recent demographic history is the large increase in the number of surviving children in the 1980s as a result of health interventions that resulted in a substantial reduction in early childhood mortality while fertility rates were still high (Miller and Hirschhorn 1995). The child bulge, which was already apparent in the high percentage of children aged 0-4 and 5-9 years in 1988, started showing up as an adolescent and youth bulge by 1998, and a full-fledged youth bulge by 2006 (Figure 1). As this "youth bulge" generation reached reproductive age in the 2010s and began to engage in family formation, population momentum coupled with rising fertility rates led to a sizeable population of children, which has been referred to as the "echo" generation (Assaad 2022; Krafft and Assaad 2014a; Krafft, Assaad, and Keo 2022; Krafft 2020). As of 2023, the initial youth bulge population was centered around age 35-39; ages when fertility rates are lower.

Coupled with a decline in overall fertility rates since 2012 (see below), the share of the child population aged 0-4 has declined appreciably. While it was as high as 15 percent of the population in 1988, and still at just under 12 percent in 2018, it had fallen to 9 percent of the population by 2023. The sizable "echo" generation had moved to ages 5-9 and 10-14, resulting in 23 percent of the population being in these age groups in 2023. The large size of this group is currently putting major pressures on the education system, and will, within the next decade, translate into major labor supply pressures (Assaad 2022). It is notable, however, that the share of the population at the age of labor market entry in 2023 (those who are aged 20-24 and 25-29) was at its lowest levels since 1988 in 2018 and 2023, meaning that current demographic pressures on the labor market are relatively modest. Since unemployment in Egypt is primarily a labor market entry phenomenon (Krafft and Assaad 2014b; Assaad and Krafft 2023), this partly explains the declining unemployment rates observed in recent years. As of 2023, we are also seeing the highest percentage of people at older ages, with more adults in the 40-49 age group than previous years,

along with more elderly adults 65+. The growth of the latter group will result in a greater need for elderly care, stretching household and public care resources.

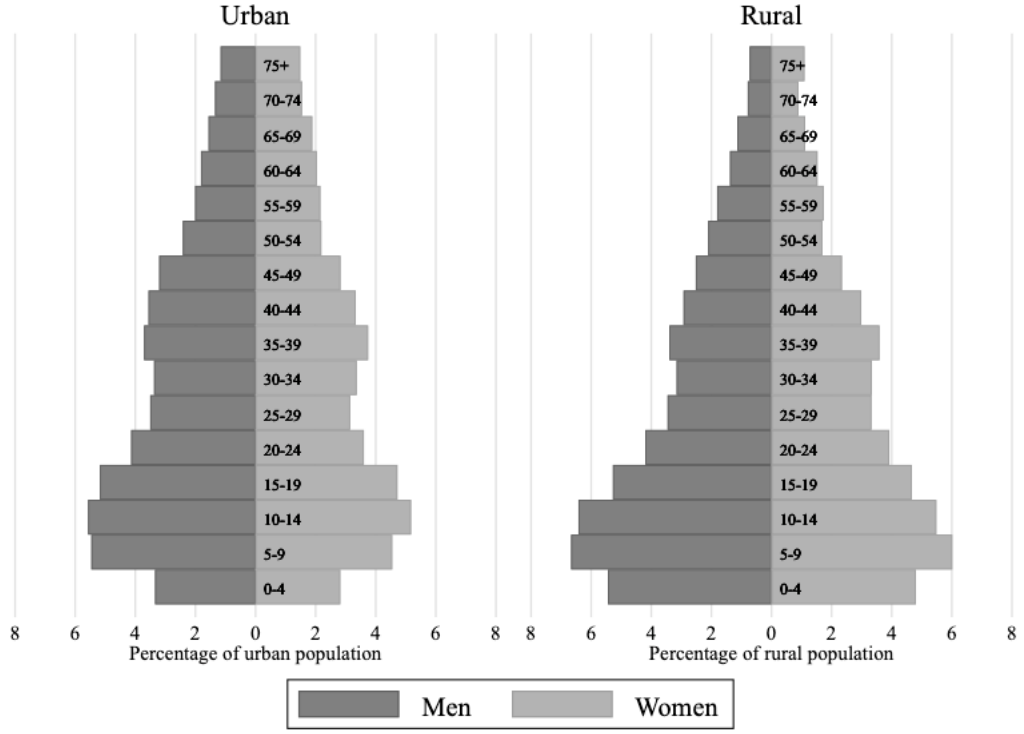
Figure 1. Population structure of Egypt (percentage in five-year age group), 1988–2023



Source: Authors' calculations based on LFS 1988 and ELMPS 1998-2023

Figure 2 explores the age and sex structure of the population in urban and rural areas in 2023. The historical youth bulge, now peaking around ages 35-39, is visible in both locations. There is a slightly larger share of older adults (aged 50-64) and elderly populations (aged 65+) in urban areas than rural ones. Both urban and rural areas show evidence of the echo generation, with peaks at ages 10-14 in urban areas (at 11 percent of the urban population) and ages 5-9 in rural areas (at 13 percent of the rural population). Both locations also show an appreciably lower share of those aged 0-4 compared to those 5-9, but to a greater extent in urban areas, where the share aged 0-4 is only 62 percent as large as the share aged 5-9. Rural areas will thus see continued pressures on the education system and subsequently labor markets for a longer time than urban areas.

Figure 2. Population structure of Egypt (percentage in age group), by location and sex, 2023



Source: Authors' calculations based on ELMPS 2023

While Figure 1 and Figure 2 focus on the relative structure of the population, Table 1 presents population growth rates, in average annual percentages, across different age groups and locations. There is a notable decline in the youngest child (aged 0-4) population, which shrank at a rate of 4.4 percent p.a. in 2018-2023, after shrinking 0.7 percent p.a. in 2012-2018, and growing 5.8 percent p.a. in 2006-2012, when the echo generation was being born. Correspondingly, the child population, age 0-14 is actually shrinking at a rate of 0.2 percent per annum (p.a.) in 2018-2023 compared to growing 2.6 percent p.a. in 2012-2018 and 4.4 percent p.a. in 2006-2012 when the growth of the echo generation was at its peak. Its growth is expected to contract even further as the echo generation transitions to older age groups. This transition is reflected in the rapid growth of the youth population (15-24) in 2018-2023 (4.0 percent p.a.) compared to its relatively modest growth in 2012-2018 and even its absolute decline in 2006-2012. This rapid growth will soon translate into intense demographic pressure on the labor market. After shrinking in 2012-2018, the young adult population is now growing again, albeit at only 0.1 percent p.a., but that growth will soon accelerate as the echo generation reaches that age. Driven by the original youth bulge generation aging into prime ages, the growth of the prime-age population, aged 30-64, has slowed in 2018-2023 to 2.0 percent p.a. from 3.5 percent p.a. in the previous period when the youth bulge had just entered prime age. The elderly population, aged 65+, is also growing at the fastest clip since 1998, with a growth rate of 4.9 percent p.a., which is substantially higher than the already-

high 4.6 percent p.a. growth rate in 2012-2018. The net effect of all these trends is slower overall growth, at 1.6 percent p.a. in 2018-2023, than in any of the preceding periods.

Table 1. Population growth rates (annual percentages), by location, age group (children 0-14), youth (15-24), young adults (25-29), prime-age (30-64), elderly (65+), and total (all ages), 1988-1998, 2006-2012, 2012-2018, 2018-2023

	Urban					Rural					Total				
	1988-1998	1998-2006	2006-2012	2012-2018	2018-2023	1988-1998	1998-2006	2006-2012	2012-2018	2018-2023	1988-1998	1998-2006	2006-2012	2012-2018	2018-2023
0-4	-1.4	3.2	6.9	-3.2	-6.3	-1.6	3.0	5.1	0.7	-3.6	-1.5	3.1	5.8	-0.7	-4.4
0-14	0.1	0.2	5.1	1.4	-0.1	0.4	0.7	4.0	3.2	-0.2	0.3	0.5	4.4	2.6	-0.2
15-24	2.4	1.8	-2.0	-0.1	6.2	4.1	2.4	-1.6	1.6	2.5	3.4	2.2	-1.8	1.0	4.0
25-29	-0.3	5.4	3.3	-2.9	0.8	1.7	4.6	5.8	-1.8	-0.3	0.8	5.0	4.8	-2.2	0.1
30-64	2.9	2.1	3.1	2.2	2.7	3.6	2.3	3.3	4.7	1.4	3.3	2.2	3.2	3.5	2.0
65+	5.6	4.1	3.1	3.9	6.3	5.2	1.4	3.4	5.3	3.4	5.4	2.7	3.2	4.6	4.9
Total	1.7	1.9	2.7	1.3	2.6	2.3	1.9	2.7	3.1	1.0	2.1	1.9	2.7	2.4	1.6

Source: Authors' calculations based on LFS 1988 and ELMPS 1998-2023

The key patterns by age group generally hold in both urban and rural areas, although urban population growth (2.6 percent p.a. in 2018-2023) is generally higher than rural population growth (1.0 percent p.a. in 2018-2023). Particularly notable is the very rapid growth of the youth population aged 15-24 in urban areas, 6.2 percent p.a. compared to 2.5 percent p.a. in rural areas; an indication of more intense demographic pressures on urban labor markets in the coming years. Also, it is particularly in urban areas that the elderly population is exploding, at 6.3 percent p.a., but growth is also high in rural areas, at 3.4 percent p.a.

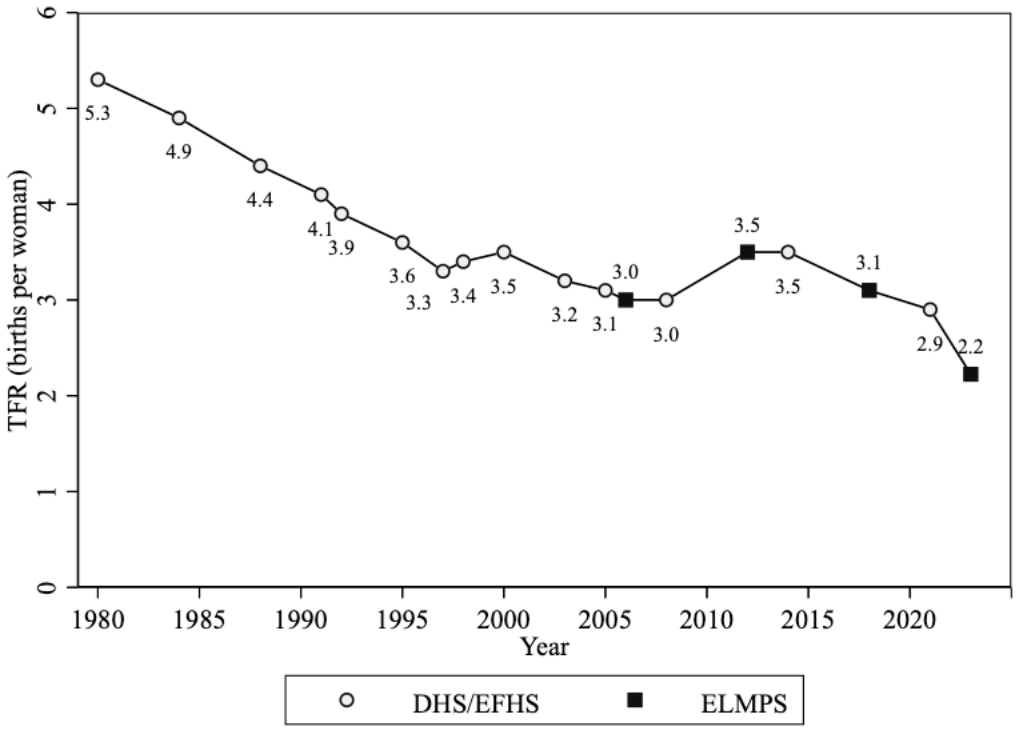
Further analyses (not shown) demonstrate regional heterogeneity in population growth rates. As of 2023, urban Lower Egypt was the fastest growing region, at 3.7 percent p.a., followed by urban Upper Egypt (3.4 percent p.a.), Greater Cairo (2.4 percent p.a.), rural Upper Egypt (1.7 percent p.a.), Alexandria and the Suez Canal Cities (1.0 percent p.a.), and lastly rural Lower Egypt (0.4 percent p.a.).

2.2. Trends in fertility

The adult population structure, shown above, interacts with fertility patterns and trends to drive population growth. Figure 3 shows the total fertility rate (TFR) from 1980 to 2023 based on the Egyptian Demographic Health Survey (DHS), its recent replacement, namely the Egyptian Family Health Survey (EFHS), and the ELMPS. The TFR is calculated in terms of the births per woman expected given current age-specific fertility rates (ASFRs). In 2023, there has been an appreciable decline in the TFR, from 2.9 births per woman in 2021, per the EFHS 2021, to 2.2 births per woman in ELMPS 2023. This is a major development since it represents an acceleration of the rate of decline in the TFR that prevailed from 2014 to 2021. It brings Egypt back to the trend that had prevailed from 1998 to 2006, which was interrupted by a substantial increase in fertility in the late

2000s and early 2010s. Fertility in Egypt had been declining steadily in the 1980s and first half of the 1990s. A first, relatively brief stall was experienced in the second half of the 1990s, but the decline resumed in the 2000s. Egypt is in 2023 at the TFR level it would have been at had the declining trend of the 1980s and early 2000s not been reversed in the late 2000s and 2010s. Moreover, at a TFR of 2.2 children per woman, Egypt is close to the replacement fertility rate of 2.1 children per woman.

Figure 3. Total fertility rate (TFR, births per woman), 1980–2023



Source: TFRs for 1980-2005 and 2008 are from El-Zanaty & Way (2009) and are primarily Demographic and Health Survey statistics. TFR for 2014 is from the 2014 Demographic and Health Survey (Ministry of Health and Population, El-Zanaty and Associates, and ICF International 2015). TFR for 2021 is from the Egypt Family Health Survey (Central Agency for Public Mobilization and Statistics (CAPMAS) 2022). TFRs for 2006 and 2012 are from Krafft (2020). TFR from 2018 is from Krafft, Assaad, and Keo (2022). TFR for 2023 is based on authors' calculations using STATA program tfr2 on the ELMPS 2023.

Notes: TFRs for 1980, 1984, and 1991 are 12 months preceding the survey. TFRs for 2023, 2018, 2012 and 2006 are three years preceding the survey, remainder are 1-36 months preceding the survey.

This appreciable decline in fertility is corroborated by the trends in the population structure, shown above, as well as analyses comparing the share of the population aged 0-4 across the 2021 EFHS and 2022 labor force survey (LFS) (Assaad and Krafft 2024) The trend is also corroborated by related official population statistics. The crude birth rate (CBR) in Egypt had risen from 28.8 births per thousand population in 2010 to a peak of 31.2 births per thousand population in 2012 and remained above 2010 levels until 2016 (CAPMAS 2024). Since then, the CBR continued to decline through 2022 (latest year available), reaching 21.2 births per thousand population (CAPMAS

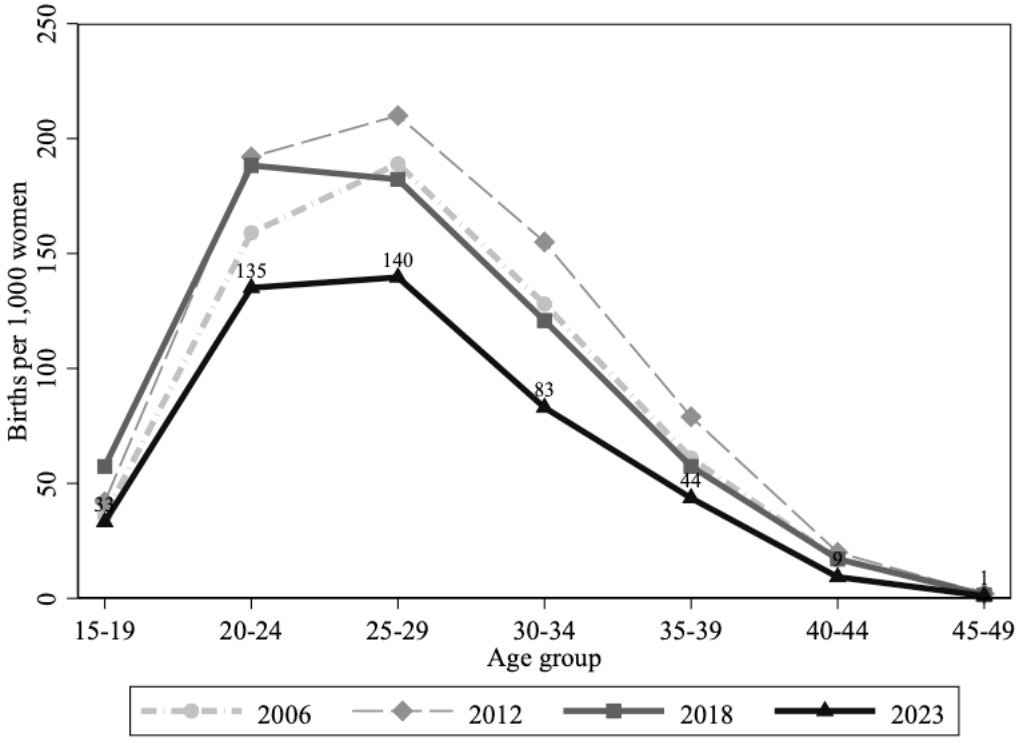
2024), roughly two-thirds of peak levels. Further news coverage indicates an additional decline of 8% in the population growth rate in 2023 (Ahram Online 2024). The TFR of 2.2 in ELMPS 2023[5] is thus relatively in line with a more than one-third decline in fertility since a peak of 3.5 in 2012-2014.

One potential key contributor to fertility decline has been an increase in contraceptive prevalence (figures not shown). The Egyptian government has been investing substantially in free and low-cost birth control (Ahram Online 2024). Among currently married women aged 15-49, in 2023, 64 percent were using traditional or modern methods to prevent pregnancy, compared to 66 percent per the EFHS (Central Agency for Public Mobilization and Statistics (CAPMAS) 2022), and 63 percent in ELMPS 2018 (Krafft, Assaad, and Keo 2022) and 60 percent in 2014 (Ministry of Health and Population, El-Zanaty and Associates, and ICF International 2015). Types of contraceptives are almost entirely modern and relatively similar to 2018, with 51.5 percent of women using an IUD in 2023 (vs. 53.3 percent in 2018), 33.0 percent using the pill in 2023 (vs. 34.9 percent in 2018), and 11.1 percent using injectables (vs. 10.0 percent in 2018).

Figure 4 explores the age-specific fertility rates (ASFRs) (expressed in births per thousand women) that drive the TFR for the period 2006-2023 using the ELMPS data. There has been a notable decline in ASFRs in 2023 across all age groups, but particularly among the highest fertility group aged 25-29. The ASFR for ages 15-19 fell from a high of 57 births per thousand women in 2018 to a low of 33 births per thousand women in 2023. For ages 20-24, the ASFR fell from a high of 192 births per thousand women in 2012 to 135 births per thousand women in 2023. At 140 births per thousand women in 2023, the ASFR for the 25-29 age group was much lower than the high of 210 births per thousand women in 2012. The ASFR for the 30-34 age group in 2023 was also appreciably lower, at 83 births per thousand women, compared to a peak of 155 births per thousand women in 2012. Births at ages 35 and older are rarer, but also declined in 2023. There has thus been an across-ages decline in fertility driving the reduced TFR.

[5] A similar TFR (2.1) pertains when using the refresher sample of the ELMPS only, suggesting the low TFR in ELMPS 2023 is not related to issues in the panel or attrition.

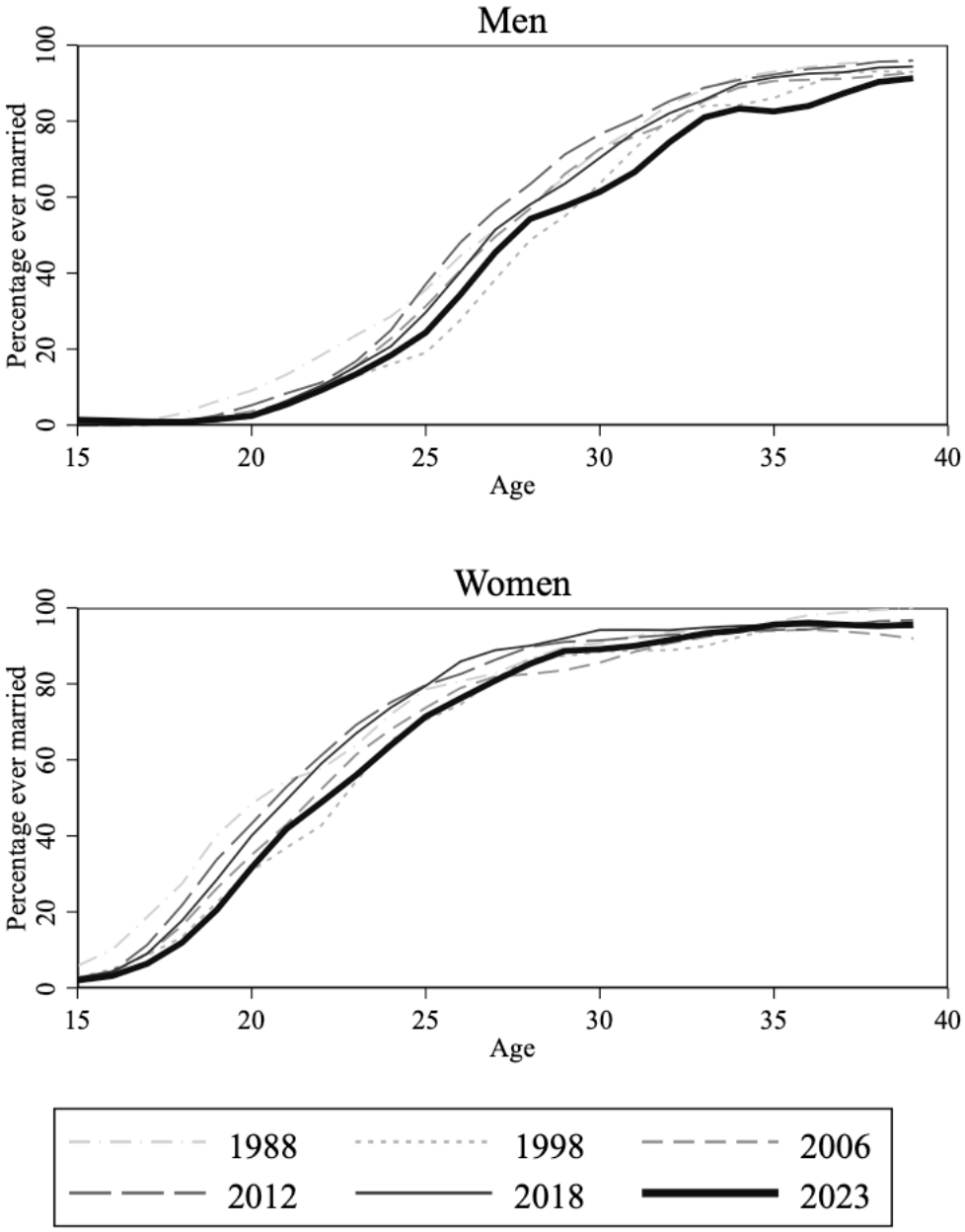
Figure 4. Age specific fertility rates (ASFRs, births per 1,000 women), women aged 15–49, 2006–23



Source: Authors' calculations based on ELMPS 2006-2023

One additional factor that could be contributing to shifts in fertility is if there are any shifts in age at marriage. Figure 5 explores the percentages of men and women who were ever married by single years of age, across the ELMPS waves. Marriage tends to be nearly universal, but with varying ages over time. While early marriages were most common in 1988, otherwise it was actually 2012 when the highest proportion of men were married across ages 25-34 and women across ages 20-34. The percentage married at these ages had declined slightly in 2018, and in 2023 we see an even lower percentage married at each age, more akin to 1998. One potential explanation of the falling ages of marriage (and rising percentages married at each age) through 2012 was increased accessibility of market-rate rental housing (Assaad, Krafft, and Rolando 2021). Shifts in 2018 and especially 2023 may be related to rising inflation rates (Office of the Chief Economist - Middle East & North Africa - The World Bank 2024)) potentially delaying marriage. Whether subsequent trends lead to even later marriages, persistence of the current shift, or a reversal will also likely affect subsequent fertility.

Figure 5. Percentage ever married by single year of age, sex, and wave, ages 15-39, 1988-2023



Source: Authors' calculations based on LFS 1988 and ELMPS 1998-2023

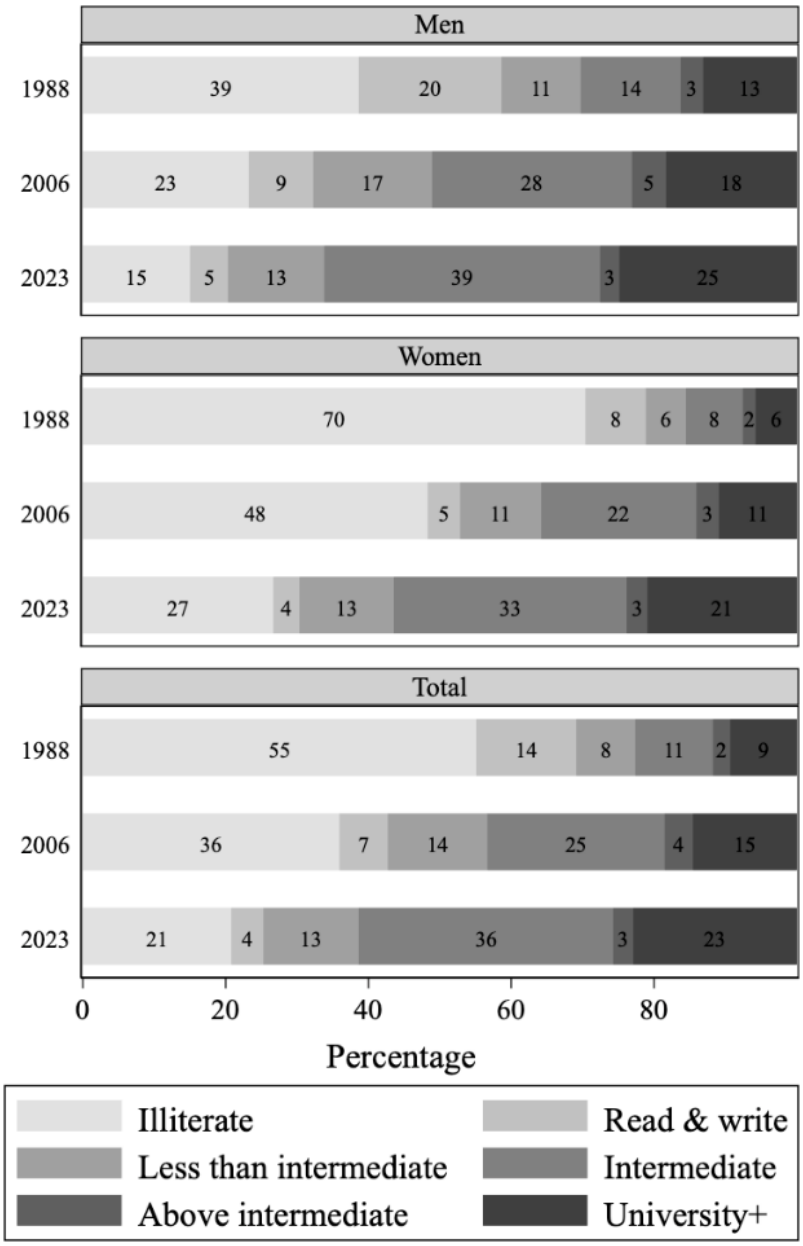
Notes: Lowess running-mean smoother with bandwidth 0.25

3. Education trends

There have been large shifts in educational attainment for the adult population (ages 25-64) in Egypt over the period from 1988 to 2023, as shown in Figure 6. The share of illiterates in the population dropped from 55 percent in 1988 to 21 percent in 2023, with particularly large gains

for women (70 percent illiterate in 1988 to 27 percent in 2023). The share who can just read or write with no certificate also declined from 14 percent in 1988 to 4 percent in 2023. The share with a less than intermediate (primary or preparatory [lower secondary]) degree went from 8 percent in 1988 to 14 percent in 2006 but remained at a similar level (13 percent) through 2023. The largest growth has been in the share of the population with an intermediate (upper secondary) degree, which went from 11 percent in 1988 to 36 percent in 2023. The share of above intermediate degrees, which are usually two years post-secondary, remained small at 2-4 percent over time. The share of university degrees or above, which involve a minimum of 4 years post-secondary, has also expanded appreciably, from 9 percent in 1988 to 23 percent in 2023. Although substantial progress has been made in closing gender gaps, among this adult population, men still have higher educational attainment than women in 2023, with a lower share of them being illiterate (15 versus 27 percent), and a higher share having intermediate degrees (38 versus 33 percent) and university degrees (25 versus 21 percent). However, as we will see below, younger generation of women are catching up quickly with their male counterparts, with evidence of higher enrollment among women at university ages.

Figure 6. Educational attainment (percentage), by sex, ages 25–64, 1988, 2006, 2023

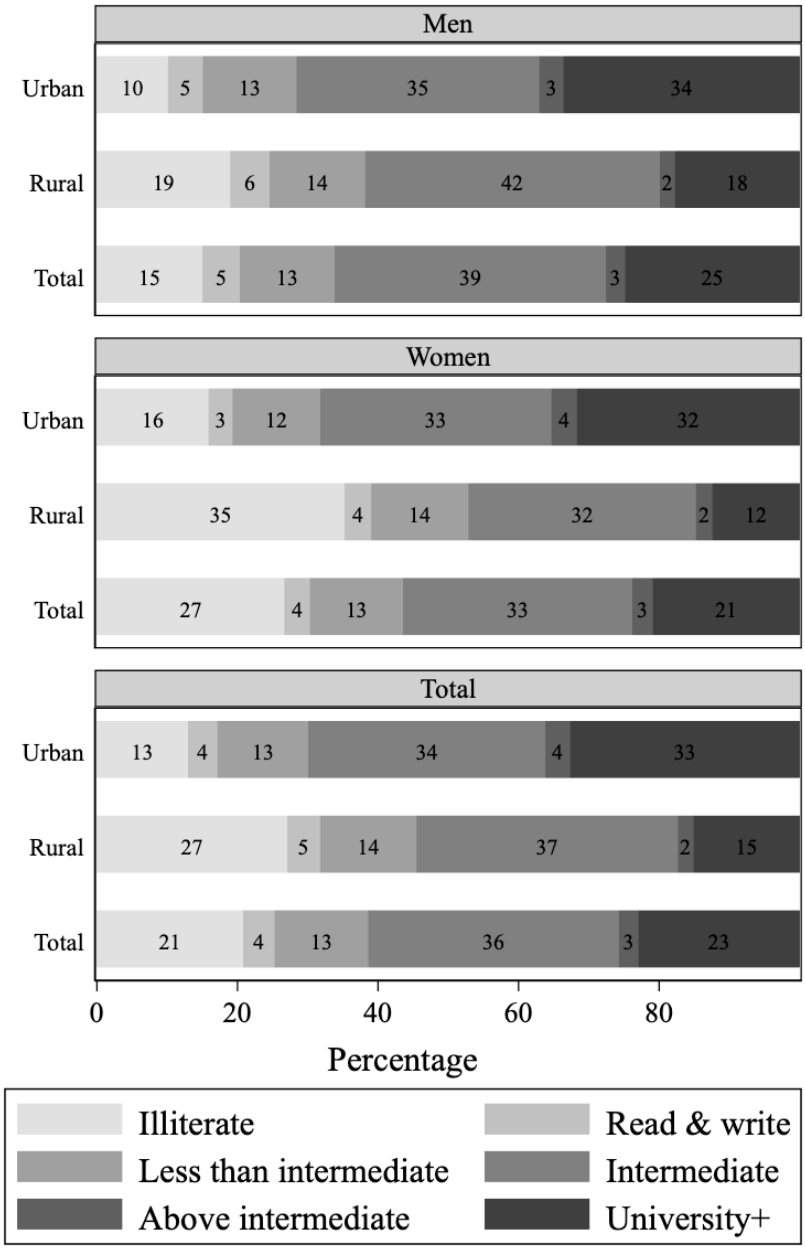


Source: Authors' calculations based on LFS 1988, ELMPS 2006, and ELMPS 2023

Figure 7 explores geographic disparities in educational attainment by sex and location in 2023, again for ages 25-64. For men and women in every location, the most common highest level of education is an intermediate (upper secondary) degree (32-42 percent). There is likewise a similar share with less than intermediate education (13-14 percent across sex and location). Women in rural locations have the highest rates of illiteracy (35 percent, compared to 19 percent for rural men, 16 percent for urban women, and 10 percent for urban men). Rural women also have the

lowest percentage of university education (12 percent versus 18 percent for rural men, 32 percent for urban women, and 34 percent for urban men). Urban men are thus the most educationally advantaged and rural women the most educationally disadvantaged, but urban women are more educated than rural men.

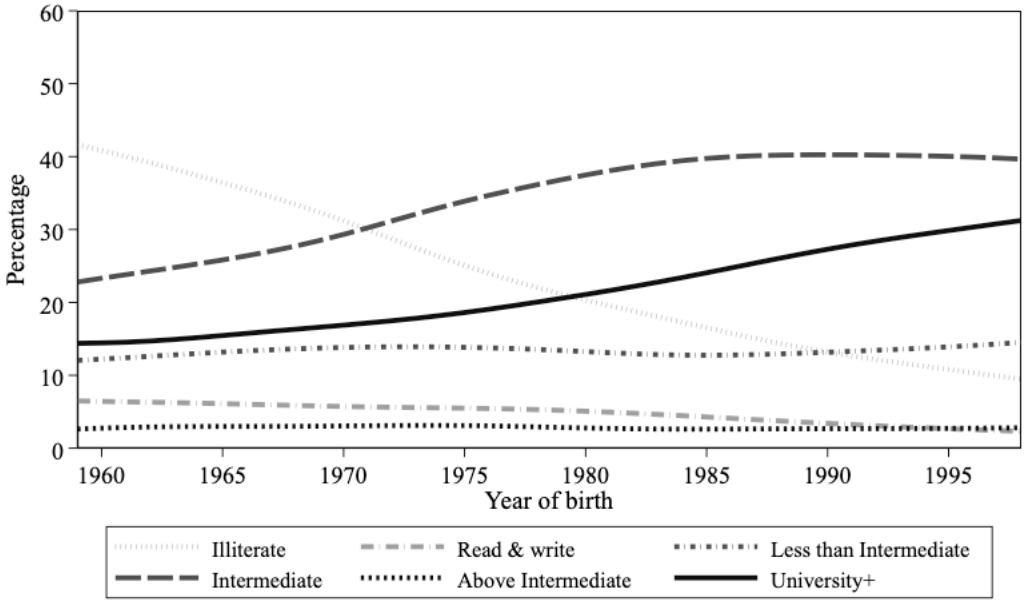
Figure 7. Educational attainment (percentage), by sex and location, ages 25-64, 2023



Source: Authors' calculations based on ELMPS 2023

While preceding figures show the stock of education shifting for adults over time, Figure 8 shows how this composition changes across birth cohorts, for those aged 25-64 in 2023. For people born prior to 1970, illiteracy was the most common educational status. Literacy rates improved steadily, with only 10 percent of people born in 1995 or later being illiterate. Intermediate educational attainment increased from slightly above 20% of the cohorts born in the early 1960s to about 40% for people born after 1985, but the share with intermediate education stabilized at about that level for subsequent birth cohorts. People born in the 1960s did not see much growth in university education, but growth in the share of university education picked up for those born in the 1970s and continued growing steadily thereafter. The percentage of people whose highest level of education is above intermediate remained stable and low. The share of those able to just read and write does remain mostly the same from those born in the 1960s to those born in the 1980s, when it begins to decline. The share of those with less than intermediate education (primary or preparatory) remained stable across birth cohorts.

Figure 8. Educational attainment (percentage) by year of birth, ages 25–64, 2023



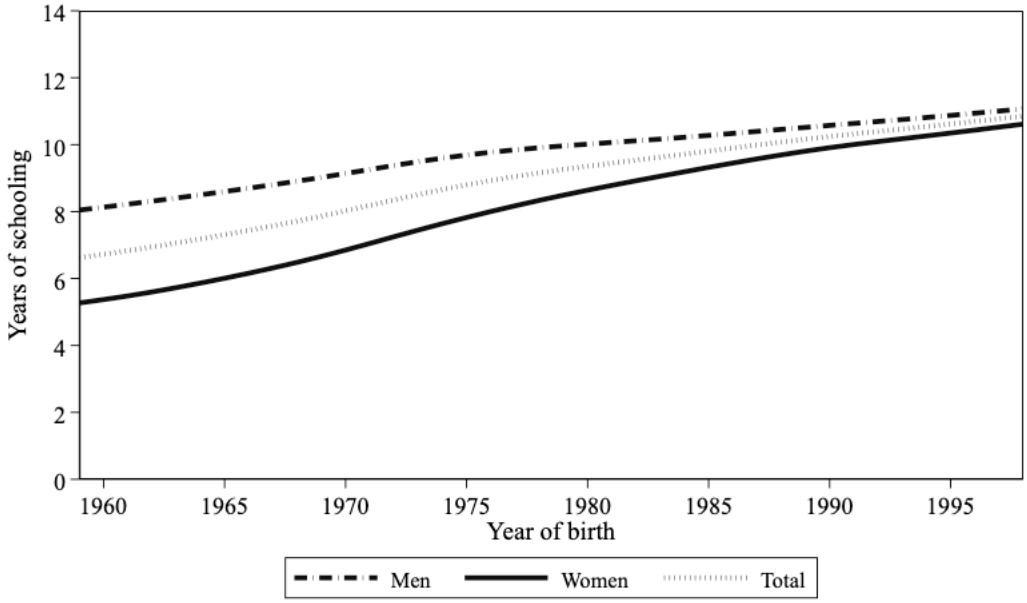
Source: Authors' calculations based on ELMPS 2023

Notes: Lowess smoothed running mean with bandwidth one. Restricted to those cohorts aged at least 25 (birth year in 1998 or earlier) to ensure educational attainment is the final degree, as well as those cohorts aged 64 or younger (birth year 1959 or later) to preclude selective mortality.

The shifts in educational attainment across generations have led to completing a greater number of years of schooling over time (Figure 9, showing differences by sex). The gender gap of around 3 years of schooling in favor of men (8 years for men vs. 5 for women) for those born around 1960 narrowed steadily over subsequent birth cohorts to under half a year in the cohorts born in the late 1990s, when the average years of schooling had reached about 10 years. With the higher female

enrollment rates shown below, we expect this gap to reverse in favor of women in the upcoming years.

Figure 9. Average years of schooling by year of birth and sex, ages 25-64, 2023

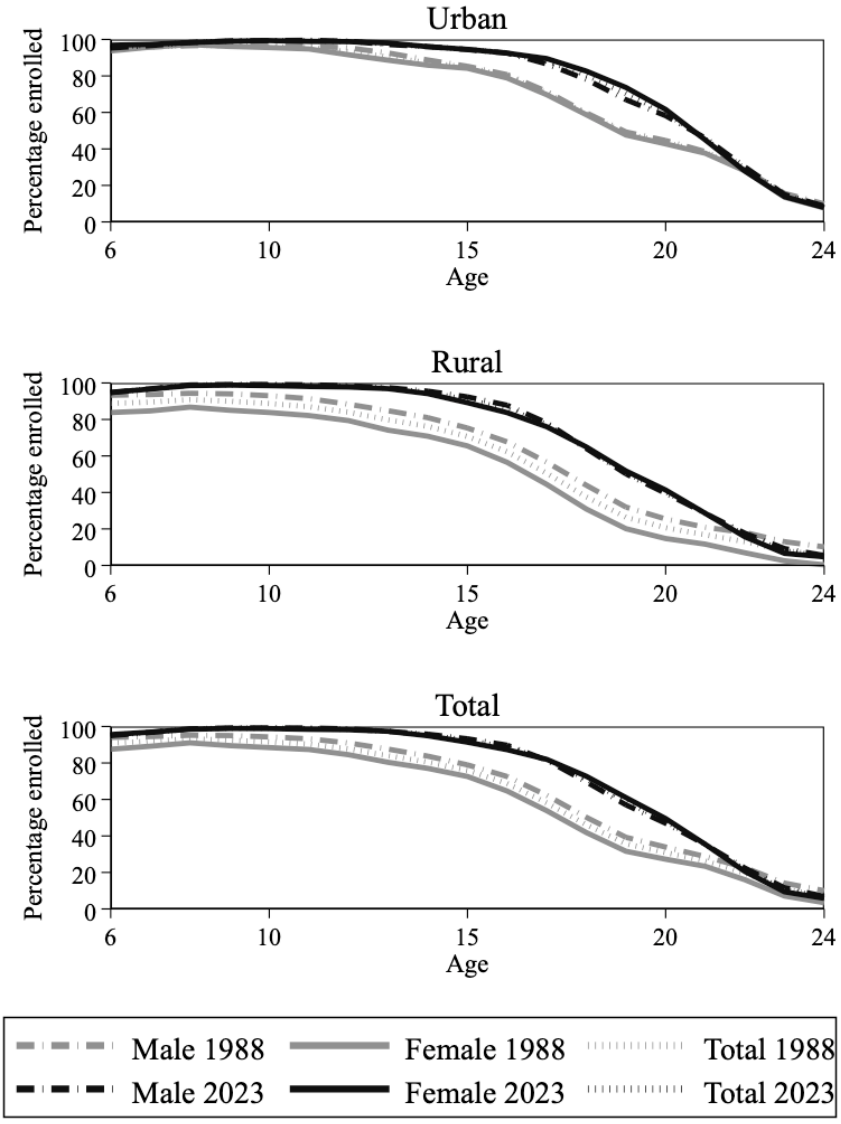


Source: Authors' calculations based on ELMPS 2023

Notes: Lowess smoothed running mean with bandwidth one. Restricted to those cohorts aged at least 25 (birth year in 1998 or earlier) to ensure educational attainment is the final degree, as well as those cohorts aged 64 or younger (birth year 1959 or later) to preclude selective mortality.

Current enrollment rates show gender disparities in education have largely disappeared. Figure 10 shows current enrollment rates, by sex and location, for those aged 6-24, comparing 1998 and 2023. In 1998 initial enrollment was less than universal in rural areas and had a clear gender gap Even in 1998 in urban areas, although enrollments at older ages were lower overall, there was not a gender gap. In 2023, enrollment rates for both sexes are similar at nearly 100 percent in both urban and rural areas until about age 13, when enrollment begins to decline slightly. In rural areas the decline is relatively steady for both sexes. In urban areas, enrollment remains high for a few more years, and begins a steeper decline around age 17, the usual end of the secondary stage. Between ages 18-21 in 2023, the ages of enrollment in higher education, in urban locations, women have a higher enrollment rate than men. This is quite notable and foreshadows an imminent reversal in the gender gap in educational attainment to become in favor of women. Around age 22, at the end of the university stage, there is a sharp decline in enrollment, with more gender parity in enrollment at the oldest ages.

Figure 10. Enrollment rates (percentage), by sex, location, and single year of age, ages 6-24, 1998 and 2023



Source: Authors' calculations based on ELMPS 2023

4. Labor force participation

In this section, we present trends in the size of the labor force and the patterns and trends of labor force participation rates. Figure 11 explores the size of the working age population and labor force, using the standard (search required for unemployment) and broad (includes discouraged unemployed) definitions of the labor force for 1998-2023. The working age population (ages 15-64) has grown appreciably over time, from 36.8 million in 1998 to 63.6 million in 2023 (a 73 percent increase). The labor force has grown, but at a slower pace, from 17.2 million using the

standard labor force (17.6 million broad labor force) in 1998 to 28.4 million (standard, 28.9 million broad) in 2023. This is a 65 percent increase (64 percent with the broad labor force). Some of the difference may be due to young people remaining in school longer, a point we explore below when we examine joblessness and NEET. While the labor force has grown steadily for men, more or less in line with the working age population, different patterns pertain for women. Although the standard labor force increased from 3.9 million in 1998 to 6.2 million in 2006 for women, that was its peak; it then declined to 5.8 million in 2012, 6.0 million in 2018, and dropped to 5.4 million in 2023 despite large increases in the female working age population (e.g. an 8 percent increase in the female working age population from 2018 to 2023, but a 10 percent decline in the standard labor force). The broad female labor force declined from a high of 6.7 million in 2018 to 5.6 million in 2023. In subsequent analyses around unemployment, we explore the dynamics behind this decline and show it is mostly driven by discouraged women giving up entirely.

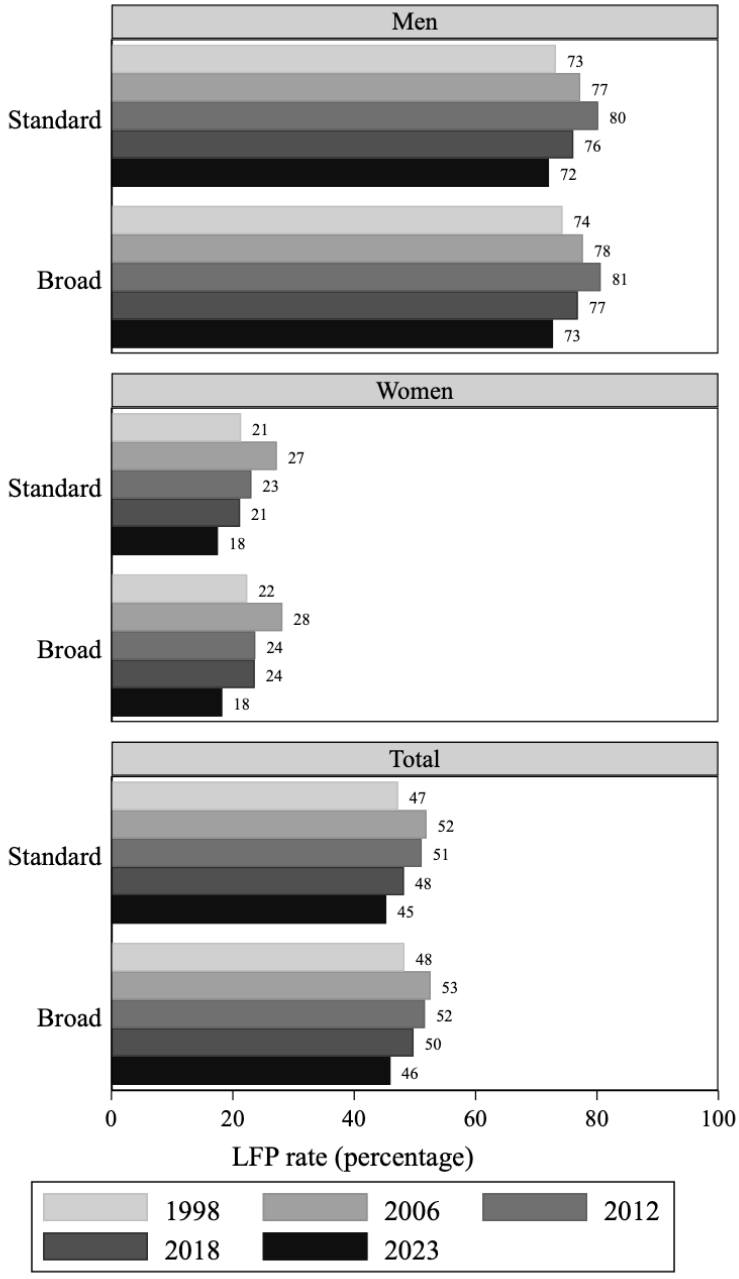
Figure 11. Size of working age population and labor force (millions), by definition and sex, ages 15–64, 1998–2023

Source: Authors' calculations based on ELMPS 1998-2023

In Figure 12, we explore the trend in the labor force participation rate, as a percentage of the working age population, by sex and unemployment definition as ascertained by the ELMPS. Both men and women's participation have declined appreciably over time, using both the standard and broad definitions of unemployment. The overall labor force participation rate in 2023 was 45 percent using the standard definition and 46 percent using the broad definition; a decline from the high of 52 percent standard and 53 percent broad in 2006. While participation only fell very slightly (by a percentage point) from 2006 to 2012, an appreciable decline took place from 2012 (51 percent standard definition) to 2023 (45 percent standard definition).[6] The difference between the broad and standard definitions has also narrowed from 2018 to 2023, as there were fewer discouraged unemployed. Women's participation rate was highest in 2006, at 27 percent using the standard definition, and fell to 23 percent in 2012, 21 percent in 2018, and down to 18 percent in 2023. Men's participation rate was highest in 2012, 80 percent using the standard definition, and fell to 76 percent in 2018 and 72 percent in 2023. These declines in participation are concerning signals in terms of the health of the labor market.

[6] The ELMPS and LFS disagree slightly on the timing of the decline, with the LFS having the decline overall and for men precede 2018 and the ELMPS showing continued decline from 2018 to 2023, while both show a decline from 2018 to 2023 for women (Assaad and Krafft 2024). Resulting 2023 participation rates are very similar across the LFS and ELMPS women (Assaad and Krafft 2024).

Figure 12. Labor force participation rate (percentage), by sex and unemployment definition, ages 15–64, 1998–2023



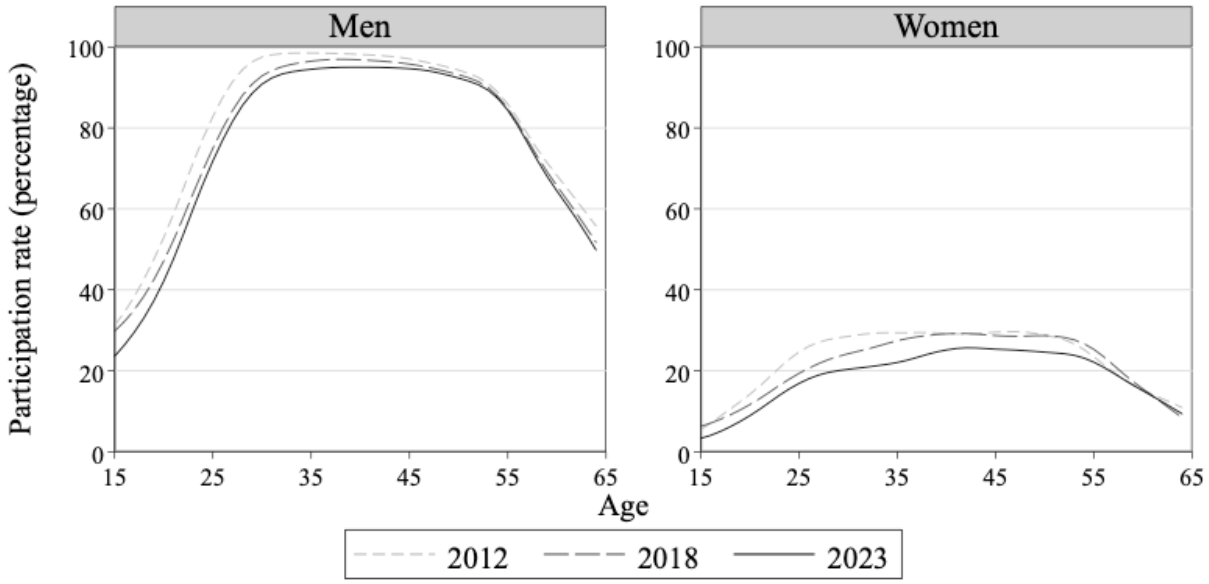
Source: Authors' calculations based on ELMPS 1998-2023

4.1. The age pattern of labor force participation

We turn now to understanding for whom labor force participation has changed, starting with differences by age from 2012-2023 in Figure 13, which uses the standard definition and

distinguishes patterns for men and women. Both men and women's labor force participation peaks between the ages 25-55 and shows the expected inverted U-shape. For men under 55, there was a steady decrease in participation from 2012 to 2018 and 2023, with the largest declines being among younger men. Participation fell for youth, aged 15-24, especially from 2018 to 2023, but also for men 25-34. While in 2012 men's participation between the ages of 25 to 34 was near universal, by 2023 it was only around 90-95 percent. Women, particularly those aged 25-55, also experienced a decrease in labor force participation from 2018 to 2023. Participation of women at younger ages fell appreciably from 2012 to 2018, but participation at age 25 was only slightly lower, at slightly less than 20 percent, in 2023 than 2018. Participation for women dropped from 2018 to 2023 particularly for those in the prime ages of 25 to 34, and to a lesser extent for those from 35 to 54. The declines at these ages primarily reflect declines among married women.

Figure 13. Labor force participation rate (percentage), standard definition, by sex and age, ages 15–64, 2012, 2018, 2023



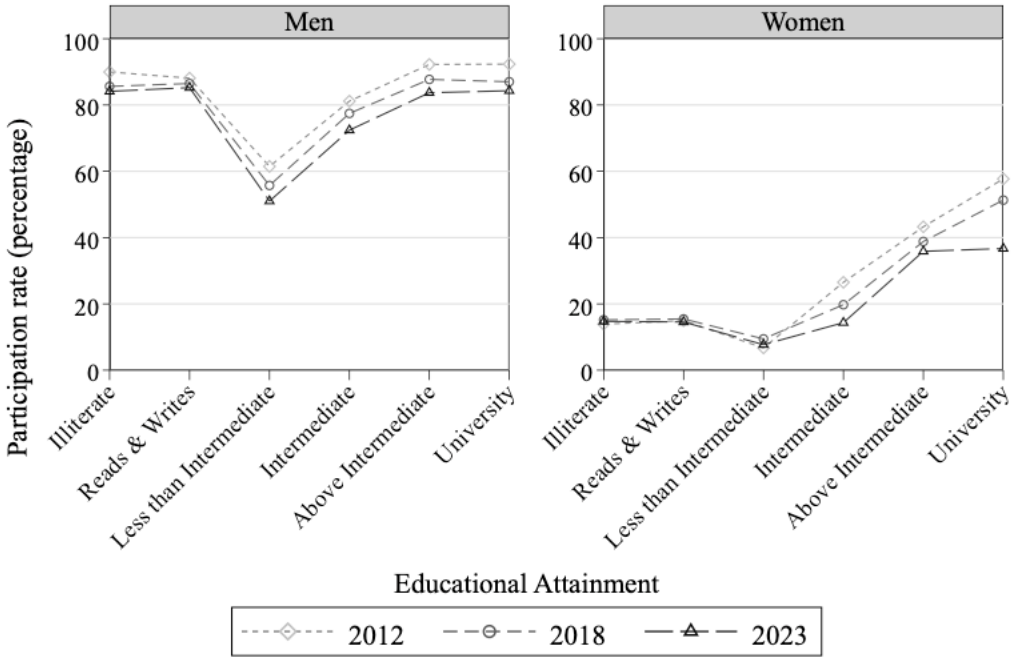
Source: Authors' calculations based on ELMPS 2012-2023

4.2. The education pattern of labor force participation

Declines in participation are occurring across most educational levels for men, but particularly for women with secondary and higher education, whose participation was traditionally higher. Figure 14 shows labor force participation rates for the working age population (aged 15-64) by education level over the 2012-2023 period. Note that those with less than intermediate or intermediate education may still be attending higher levels of school (intermediate or university). Men's participation declined for every education level and steadily since 2012. Declines were of a relatively similar magnitude across education levels for men, aside from for the "reads and write"

group which experienced only small declines and had the highest participation rate in 2023. Less than 20 percent of women who are illiterate, read or write, or have less than intermediate education participate in the labor force, and this has not changed much over time. What has changed appreciably is the participation of women educated at the intermediate level or higher, which has declined appreciably since 2012. Historically, participation rates for women in Egypt jumped at the intermediate level of education, leading to an expectation that as the proportion of the working age population achieving that level rises, overall female participation would also rise. However, the increase in female educational attainment was more than counteracted by the decline in participation among educated women, leading to an overall decline in participation. The largest declines in participation between 2018 and 2023 have happened among university graduates, who typically have the highest participation rates. Their participation rate of 58 percent in 2012 has dropped by 21 p.p. to 37 percent (a 36 percent drop in relative terms), with most of the drop happening between 2018 and 2023.

Figure 14. Labor force participation rate (percentage), standard definition, by education and sex, ages 15–64, 2012, 2018, 2023



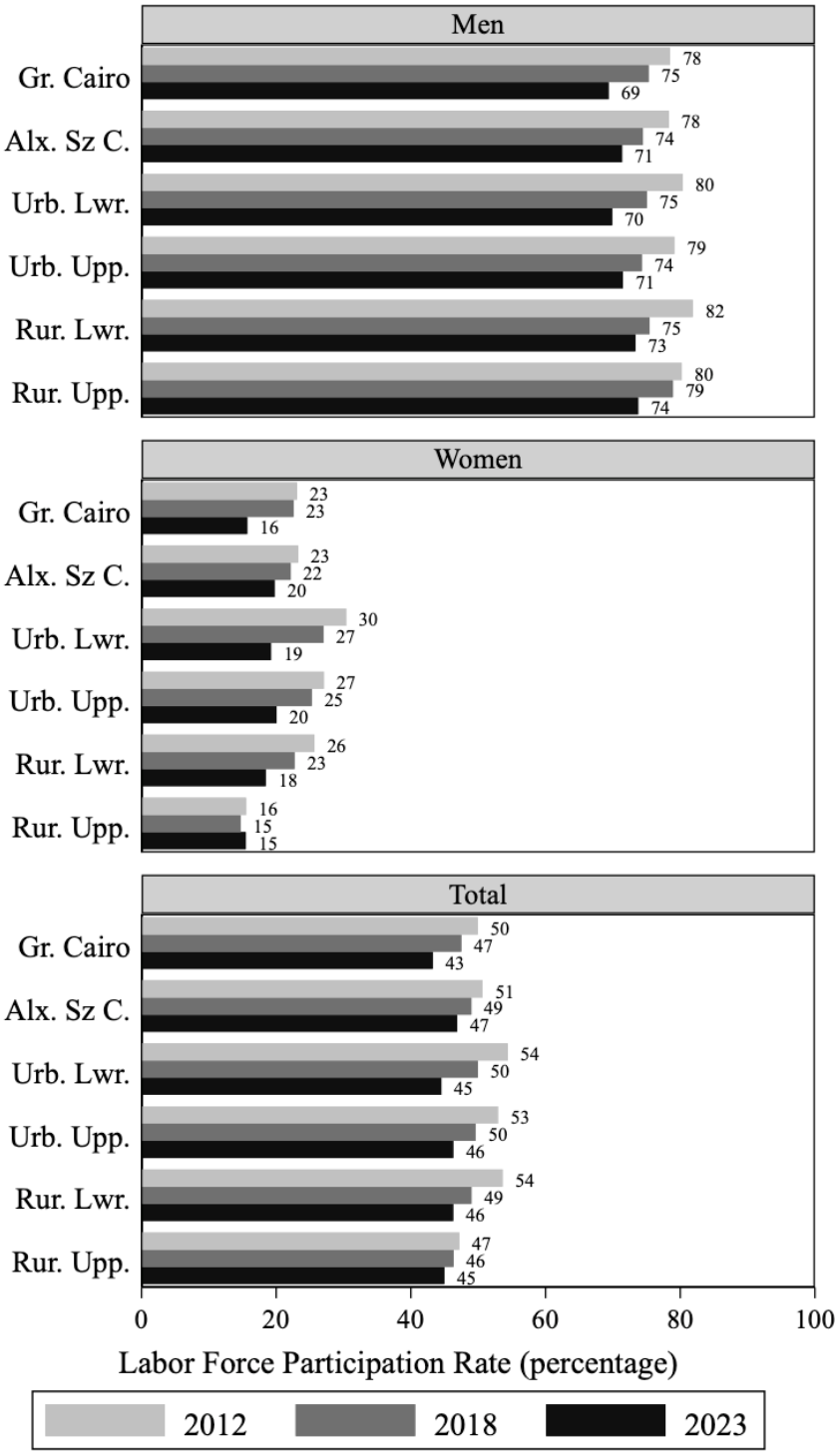
Source: Authors' calculations based on ELMPS 2012-2023

4.3. The regional pattern of labor force participation

There are small differences in male and female participation by region (Figure 15). Male participation is generally similar in urban and Metropolitan areas (69-71 percent) and somewhat higher in the rural areas (73 percent in rural Lower Egypt and 74 percent in rural Upper Egypt).

Declines in participation have been fairly similar for men across regions (6-10 percentage points). Female participation was higher in 2012 in the non-metropolitan regions (26-30 percent vs. 23 percent), with the exception of rural Upper Egypt, where it was particularly low (16 percent). Nevertheless, by 2023, female participation had dropped appreciably in all regions, except for rural Upper Egypt, which by then had a similar female participation rate (15 percent) as the Greater Cairo Region (16 percent). Regional differences in female participation rates have been narrowing as overall participation rates decline.

Figure 15. Labor force participation rate (percentage), standard definition, by region and sex, ages 15–64, 2012, 2018, 2023



Source: Authors' calculations based on ELMPS 2012-2023

5. Employment rates

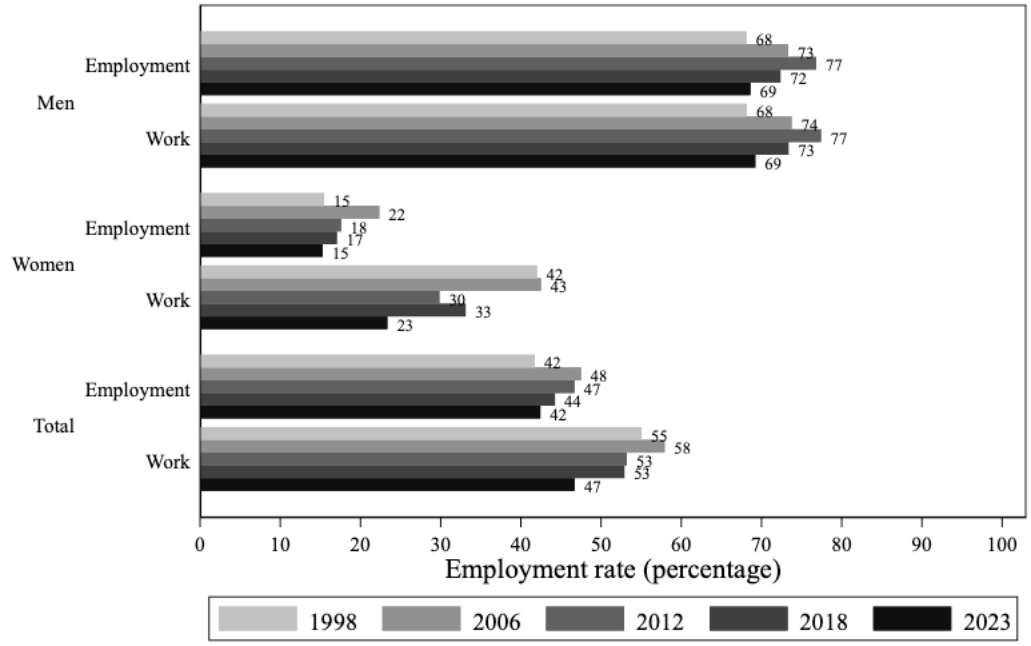
We now turn to a key component of the labor force and a critically important labor market outcome: employment rates. We utilize the definition of employment adopted by the 19th International Conference of Labor Statisticians (ICLS-19) which includes work for pay or profit, i.e. work for purposes of market exchange (ILO 2013). However, we also present engagement in "work," which in addition to employment includes involvement in the production or processing of primary goods for the purpose of household consumption – or subsistence work. In Figure 16, we show both employment rates and work rates by sex and over time from 1998 to 2023. The patterns generally track the trends in labor force participation.

Employment rates were highest in 2006 overall, at 48 percent, declined appreciably to 44 percent in 2018, and further declined from 2018 to 2023 to 42 percent.[7] The more broadly constructed work rates have generally followed similar trends, except for a more precipitous decline between 2018 and 2023. This indicates an appreciable decline in engagement with subsistence work during this period, narrowing the gap between the employment (42 percent in 2023) and work rates (47 percent in 2023).

As shown in Figure 16, employment rates among men fell substantially from a high in 2012 to a low in 2023 from 77 percent to 69 percent; a 10 percent relative decline over a period of just over ten years. As expected, there are only small differences between employment and work rates for men given men's limited involvement in subsistence work in Egypt. What were already low employment rates among women have also declined from a high of 22 percent in 2006 to 18 percent in 2012 and further to 15 percent in 2023, a relative decline of 32 percent over 2006-2023 (17 percent over 2012-2023, more so than for men). Because of women's substantial involvement in subsistence work in Egypt, work rates for women (23 percent in 2023) are substantially higher than employment rates (15 percent in 2023), but as we mentioned above, the gap has been narrowing over time as a smaller fraction of women engaged in subsistence work in 2023.

[7] As with labor force participation, the LFS and ELMPS diverge somewhat in the timing of trends overall and for men for employment, with the ELMPS showing a decline for men and overall from both 2012 to 2018 and 2018 to 2023, but the LFS showing the decline in the 2012 to 2018 period, starting from a lower level (Assaad and Krafft 2024).

Figure 16. Employment and work rates (percentage), by sex and definition, ages 15–64, 1998–2023



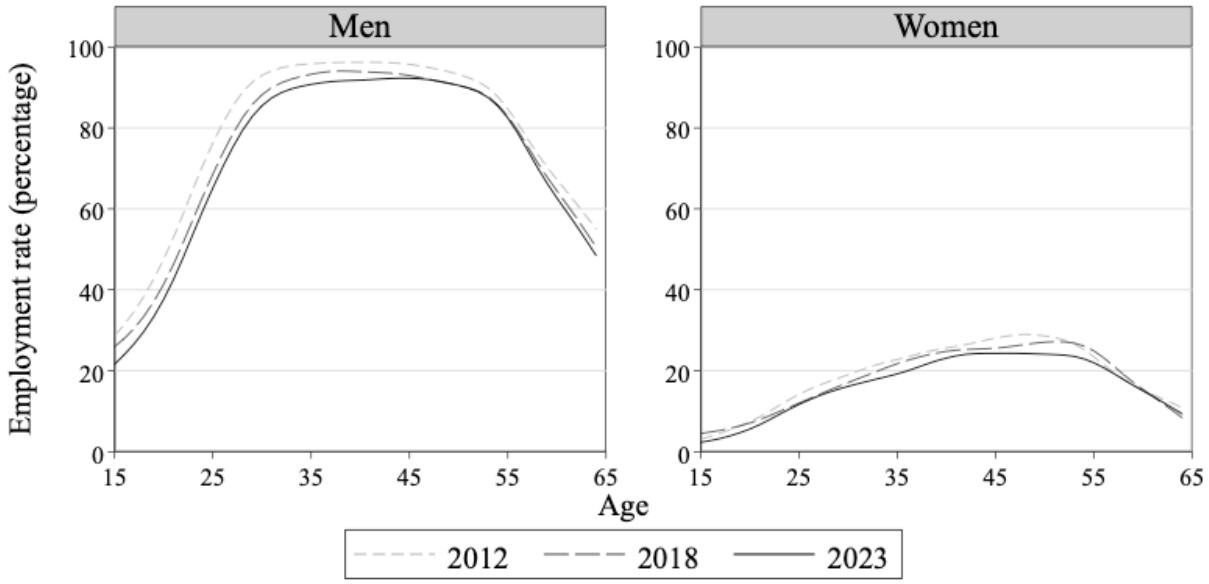
Source: Authors' calculations based on ELMPS 1998-2023

5.1. The age pattern of employment

Figure 17 explores patterns of employment by age and sex over the 2012 to 2023 period.[8] Patterns for men track closely with those of labor force participation, with appreciable declines in employment rates over time not only for the youngest men aged 15-24, but also for those aged 25-44. As of 2023, male employment rates at prime working ages of 30-49 now peak at only slightly above 90 percent. Employment rates by age for women have changed relatively less over time than for labor force participation, showing only slightly lower employment compared to previous years at younger ages, a similar rate to 2018 (but lower than 2012) around age 25, a slight dip in employment at age 35, and slightly lower thereafter, as well as less employment at age 55 as well. This suggests, as we will see below, that declines in unemployment are a key driver of falling participation for women, which may indicate more discouragement among those women who had previously hoped to obtain public sector jobs.

[8] The figure focuses on ages 15-64, but an appreciable share of adults aged 65+ are employed; as of 2023 this was 14 percent of those aged 65+, 26 percent of men aged 65+, and 4 percent of women aged 65+.

Figure 17. Employment rate (percentage), by sex and age, ages 15–64, 2012, 2018, 2023

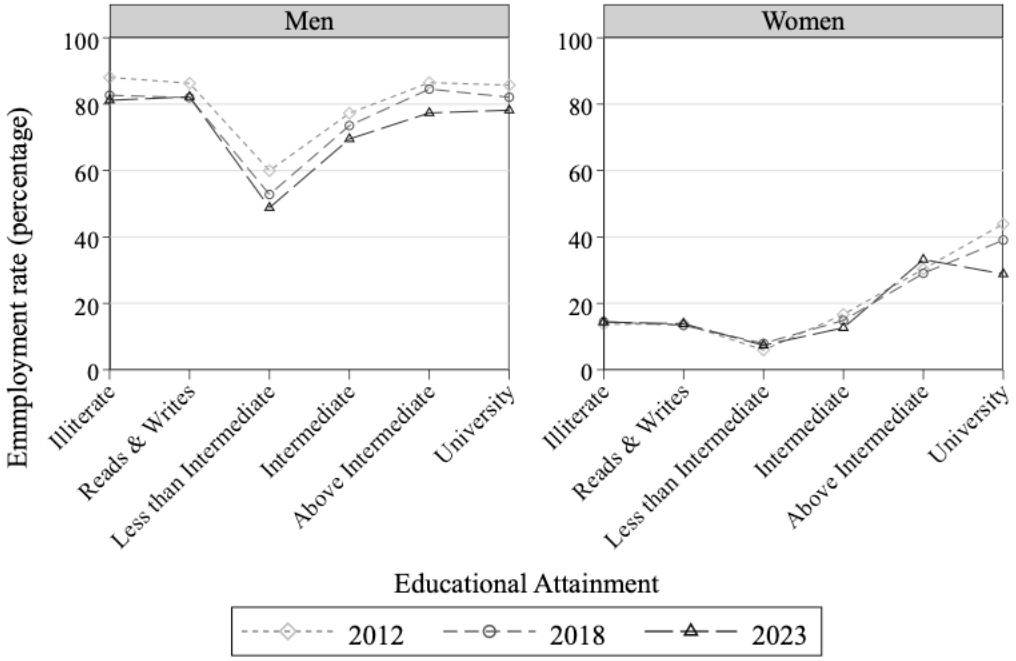


Source: Authors' calculations based on ELMPS 2012-2023

5.2. The education pattern of employment

The patterns of employment rates by education (Figure 18) largely follow the pattern for labor force participation rates. Employment rates have declined over time for men of every educational group except for the "read and write" group. Male intermediate, above intermediate, and university graduates all had appreciable declines from 2018 to 2023, such that none of these groups now has an employment rate above 78 percent. For women, there has been little change in employment rates over time for those with less than intermediate education. Small declines have continued for the intermediate educated for women, from 17 percent employed in 2012 to 13 percent in 2023. Female university graduates have experienced appreciable declines in employment over time, from 44 percent in 2012 to 29 percent in 2023. This sizeable decline in employment rates for educated women represents a substantial missed opportunity for the Egyptian economy to capitalize on rising female educational attainment.

Figure 18. Employment rate (percentage), by education and sex, ages 15–64, 2012, 2018, 2023

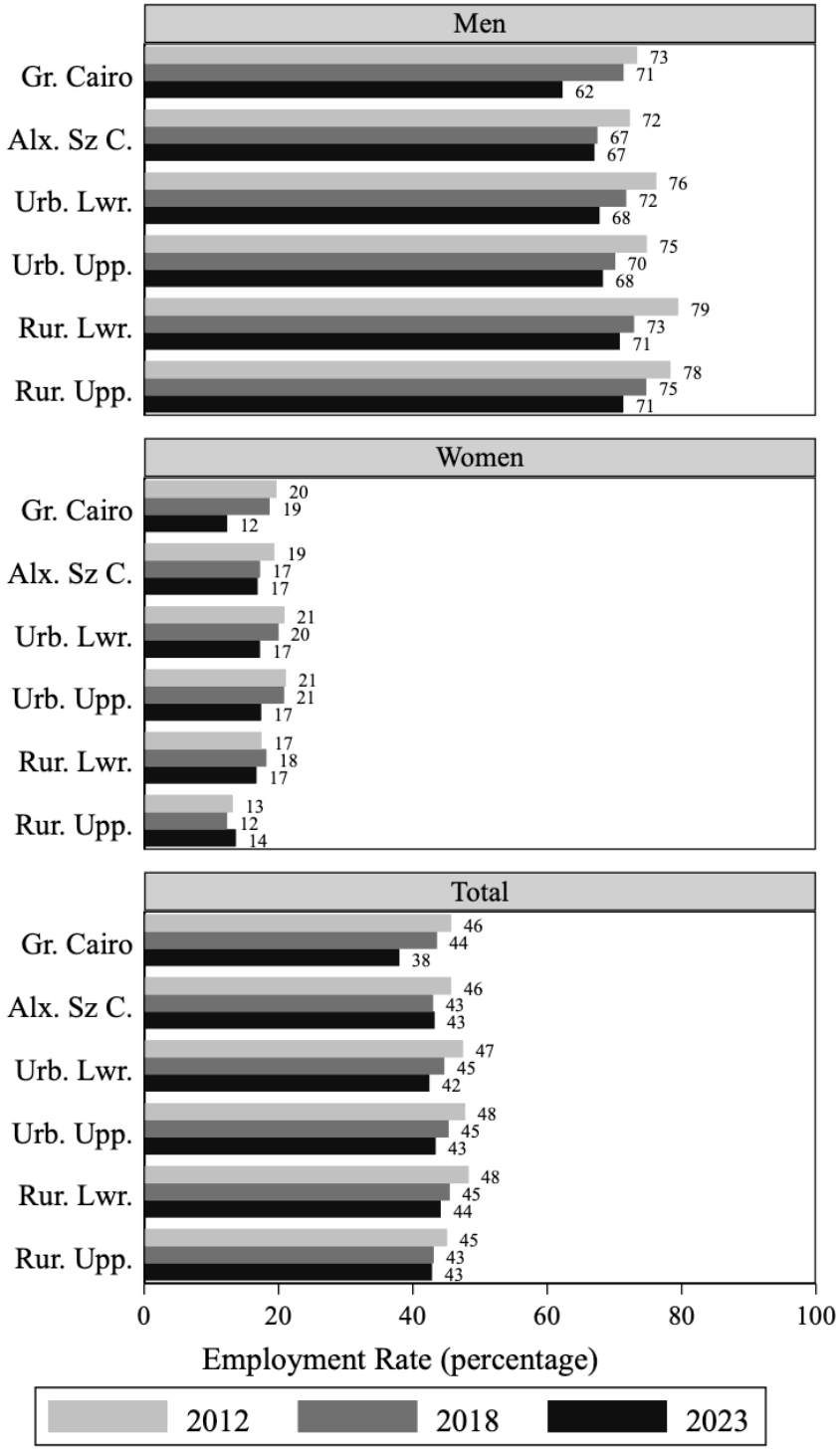


Source: Authors' calculations based on ELMPS 2012-2023

5.3. The regional pattern of employment

There are limited disparities in employment rates across regions in Egypt (Figure 19). In 2012, employment rates ranged from a high of 48 percent in rural Lower and urban Upper Egypt to a low of 45 percent in rural Upper Egypt. In 2023, employment rates were lower than in 2012 in all regions and ranged from 44 percent in rural Lower Egypt to 38 percent in Greater Cairo, which experienced the largest decline in employment rates, followed by urban Lower Egypt and urban Upper Egypt. All other regions had more limited declines especially in the 2018 to 2023 period. Declines in employment rates in Greater Cairo in the 2018-2023 period were large for both men and women. In fact, rural Upper Egypt, the region with traditionally the lowest female employment rates saw an increase in that rate from 12 percent in 2018 to 14 percent in 2023, giving it a higher female employment rate than Greater Cairo (12 percent). This shift could be due to the convergence between employment and work, with women previously doing subsistence work in rural Upper Egypt in some cases moving towards market work. All other regions had female employment rates of 17 percent, making 2023 the year with the least regional disparity in female employment rates.

Figure 19. Employment rate (percentage), by sex and region, ages 15–64, 2012, 2018, 2023

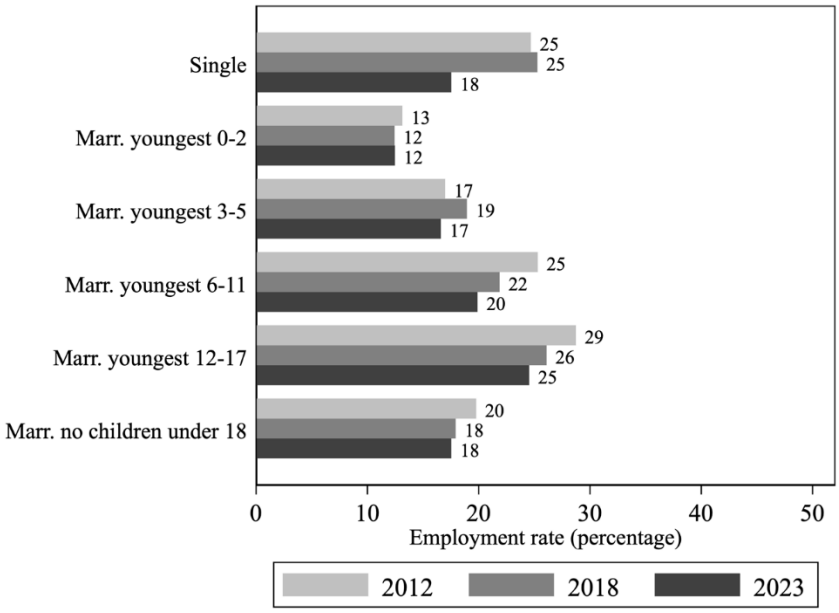


Source: Authors' calculations based on ELMPS 2012-2023

5.4. Employment and family formation

There has historically been a strong life-cycle component to employment for women in Egypt, with women typically leaving employment at or in anticipation of marriage (Selwaness and Krafft 2021; Assaad, Krafft, and Selwaness 2022; Krafft, Assaad, and Keo 2022). Figure 20 explores women's employment rates over time by their marital status (ever married [married] versus never married [single]) and the age of their youngest child, for women not enrolled in school. For married women with children under age 18, there is a clear increase in employment as children get older, from 13 percent for those in 2023 with their youngest aged 0-2 to 25 percent for those married women with their youngest aged 12-17. Although there have not been large changes in employment rates over time for women with children aged 0-5, there have been appreciable declines for those with school-aged children, for instance from 25 percent in 2012 for those with children aged 6-11 to 20 percent in 2023. Those married with no children under 18 occupy an intermediate position, with an 18 percent employment rate in 2023, and only small declines over time. Although historically single women tended to have higher employment rates, e.g., 25 percent in 2012 and 2018, their employment rates fell appreciably to 18 percent in 2023. It thus appears that women who used to work in the years between finishing school and marriage are now increasingly foregoing this, explaining some of the declines in employment rates we are observing. Overall, although there remains some variation by marital status and family responsibilities, the relationship has weakened somewhat in 2023 compared to preceding years.

Figure 20. Employment rate (percentage), by marital status and age of youngest child, women not enrolled in school, ages 15–64, 2012, 2018, 2023



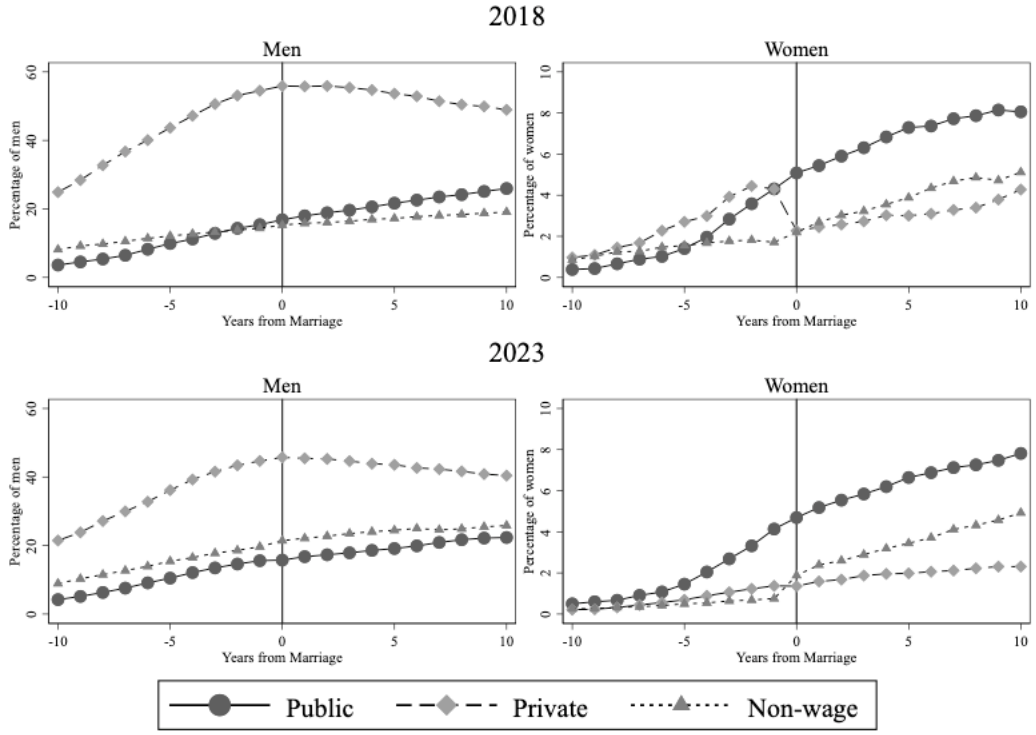
Source: Authors' calculations based on ELMPS 2012-2023

Note: Married includes ever married (divorced, separated, and widowed).

Figure 21 further explores the life cycle patterns of employment, comparing men and women's statuses by years since marriage for those married in the 20 years preceding the 2018 and 2023 waves. Men's employment rates rise appreciably as they approach marriage, with private sector wage employment peaking at marriage in the samples from both waves. Private sector wage employment then declines, with public sector and non-wage employment continuing to rise for men after marriage in the samples from both waves, although the level of private wage work is lower and non-wage work is higher in the 2023 sample. For women, in both the 2018 and 2023 samples, public sector work rises steadily both in advance and after marriage, with no particular structural shifts around marriage. Non-wage work, in 2018 and 2023, rises and especially accelerates at marriage for women. The increase in non-wage work, primarily self-employment, after marriage for women underscores their greater need for flexible work arrangements at that stage in their life course given their substantial increase in unpaid care work responsibilities at marriage (Atallah and Hesham 2024; Krafft and Li 2024).

Where the two waves show different results is in regards to private sector wage work, which in the 2018 sample rose in advance of marriage and then appreciably dropped at marriage, never entirely recovering. In the 2023 sample, far fewer women report working in the private sector in advance of marriage, such that there is only a tiny drop at marriage before a continued slight rise. This result may be related to that in Figure 20, that fewer single women are working. It could also be driven by cohort effects (which cohorts are included in the two samples) as well as issues with recall, since these results are based on the labor market history data, which is subject to recall bias and was collected slightly differently in 2023 than 2018 (Assaad, Krafft, and Yassin 2018; Assaad and Krafft 2024).

Figure 21. Employment status by years since marriage and sex (percentage), individuals married in the 20 years preceding the wave, aged 15–64, 2018 and 2023



Source: Authors' calculations based on ELMPS 2018-2023

Note: The y-axis scale is different across the men's and women's panels.

6. Unemployment rates

Historically in Egypt, unemployment rates have responded only weakly to cyclical conditions, being mainly driven by structural conditions, particularly the share of new and educated entrants (Krafft and Assaad 2014b; Assaad 2019; Krafft et al. 2023). ELMPS data show a declining trend in unemployment rates in Egypt. Figure 22 explores the standard and broad measures of the unemployment rate, as a percentage of the labor force,[9] by sex and over the 1998-2023 period. The standard definition requires the individual not to have worked even one hour in the reference week, be desiring to work, available to start work within two weeks, and to have actively searched for work during the previous three months. The broad definition drops the active search criterion and therefore includes the discouraged unemployed among the unemployed.

According to the ELMPS, unemployment using the standard definition has dropped from a high of 11.7 percent in 1998 to 8.5 percent in 2006, remained at roughly that level through 2012, and

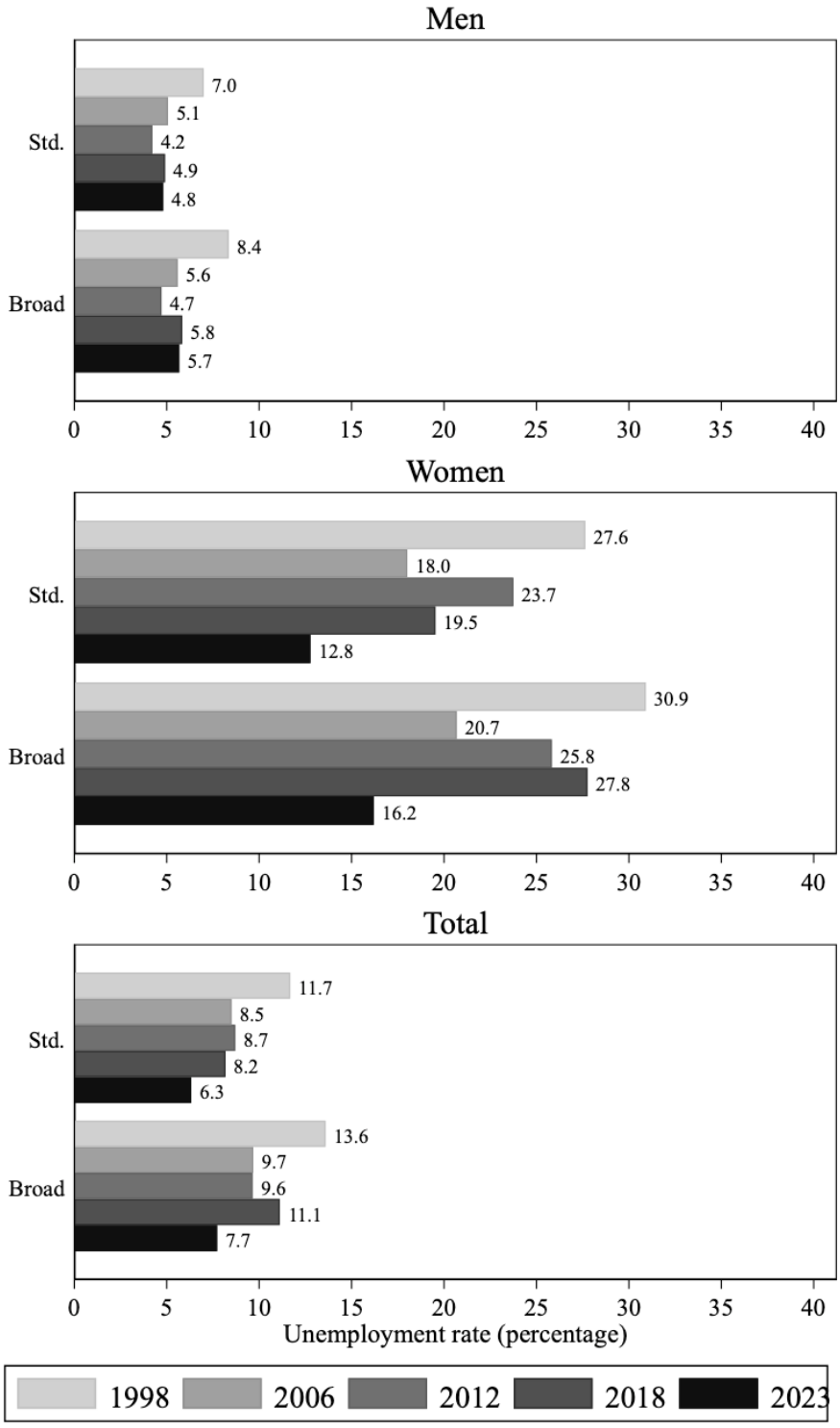
[9] Note that unemployment rates among non-students are nearly identical (within 0.1 percentage points of the presented estimates), as very few students are in the labor force.

then fell slightly to 8.2 percent by 2018. There was then an acceleration in the rate of decline with the unemployment rate reaching 6.3 percent in 2023, a relative drop of 23 percent over the 2018-2023 period. Using the broad definition, unemployment fell from 13.6 percent in 1998 to 9.6-9.7 percent in 2006-2012, before rising to 11.1 percent in 2018, as discouragement rather than standard unemployment rose. However, like the standard unemployment rate, the broad unemployment rate fell to 7.7 percent in 2023.

As shown above, the overall decline in unemployment cannot be attributed to increases in employment, but rather to changes in participation behavior as well as reduced demographic pressures on the labor market. Thus, while declines in unemployment are typically heralded as good news, when they reflect instead falling employment and discouragement, they can instead be part of worsening conditions in the labor market. Furthermore, the favorable demographic conditions that have helped reduce unemployment rates are likely to reverse soon as the "echo" generation makes it way to the labor market over the upcoming decade (Assaad 2022).

For men, the standard unemployment rate generally followed the same trend as overall unemployment since 1998. It fell from 7.0 percent in 1998 to 4.2 percent in 2012, increased slightly to 4.9 percent in 2018 and then fell very slightly to 4.8 percent in 2023. Broad unemployment followed a roughly similar pattern for men. Unemployment for women in Egypt is typically much higher than for men, but the gender gap is falling in recent years. The standard unemployment rate for women in 1998 was 27.6 percent, four times as high as the male rate. By 2023, it was 12.8 percent, about two and a half times the male rate. Initially, this was because many women were discouraged and stopped searching, leading to a growing gap between the standard and broad rate for women (19.5 percent vs 27.8 percent, respectively, in 2018). With the broad rate also falling (to 16.2 percent in 2023 for women), together with the standard rate and the employment rate dropping for women, in 2023, non-employed women are increasingly declaring themselves as not wanting to work. This may be an indication of deep discouragement leading to an abandonment of the labor force altogether on the part of many women, especially those that in the past were eligible for government jobs and now feel that such jobs are unattainable. Thus, the rapidly declining unemployment rate for women is not in fact a good sign as it indicates that when women perceive that good jobs are not available and are not likely to be available, they simply opt to stay out of the labor force altogether, given the prevailing gender norm of a male breadwinner and a female homemaker.

Figure 22. Unemployment rate (percentage of the labor force), by sex and definition, ages 15–64, 1998–2023

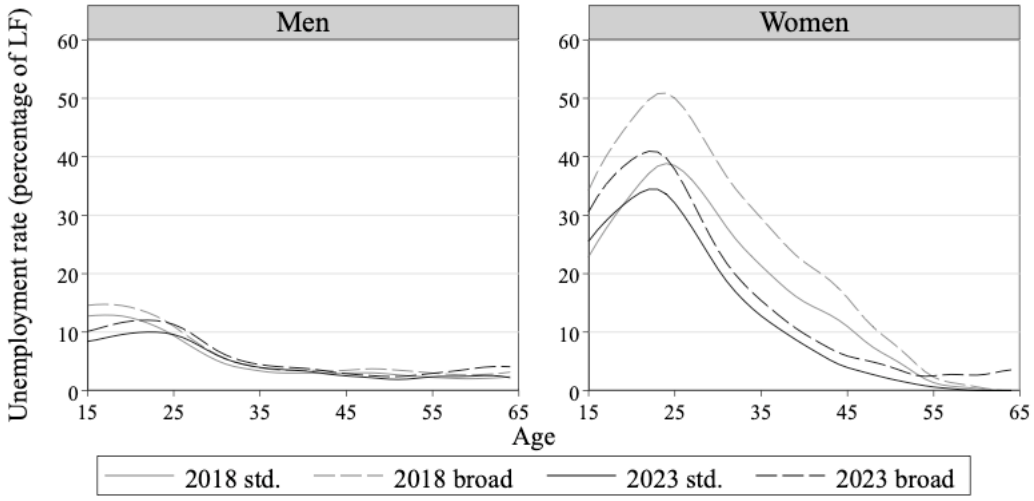


Source: Authors' calculations based on ELMPS 1998-2023

6.1. The age pattern of unemployment

Figure 23 explores the age patterns of unemployment, across standard and broad definitions, comparing 2018 and 2023. For men, the peak in unemployment rates has shifted from age 15-18 in 2018 to be around age 25 in 2023. Unemployment rates fall appreciably between ages 25 and 35 and are generally low thereafter using both definitions and in both 2018 and 2023. For women, the peak in unemployment has been close to age 25 in all years and definitions, shifting slightly earlier in 2023 as unemployment rates particularly fell especially for women aged 25 and older. Broad unemployment rates at these ages were also closer to standard rates in 2023 than in 2018, although the drop in broad unemployment also occurred at younger ages as well. It thus appears that women of marriage age are increasingly less likely to declare themselves as desiring to work and are thus dropping out of the labor force altogether. Given their care work responsibilities (Atallah and Hesham 2024; Krafft and Li 2024), these women would have likely only accepted work in the public sector, but as public sector opportunities become more remote, they increasingly declare themselves as not wanting to work.

Figure 23. Unemployment rate (percentage of the labor force), standard vs. broad definition, by sex and age, ages 15–64, 2018, 2023



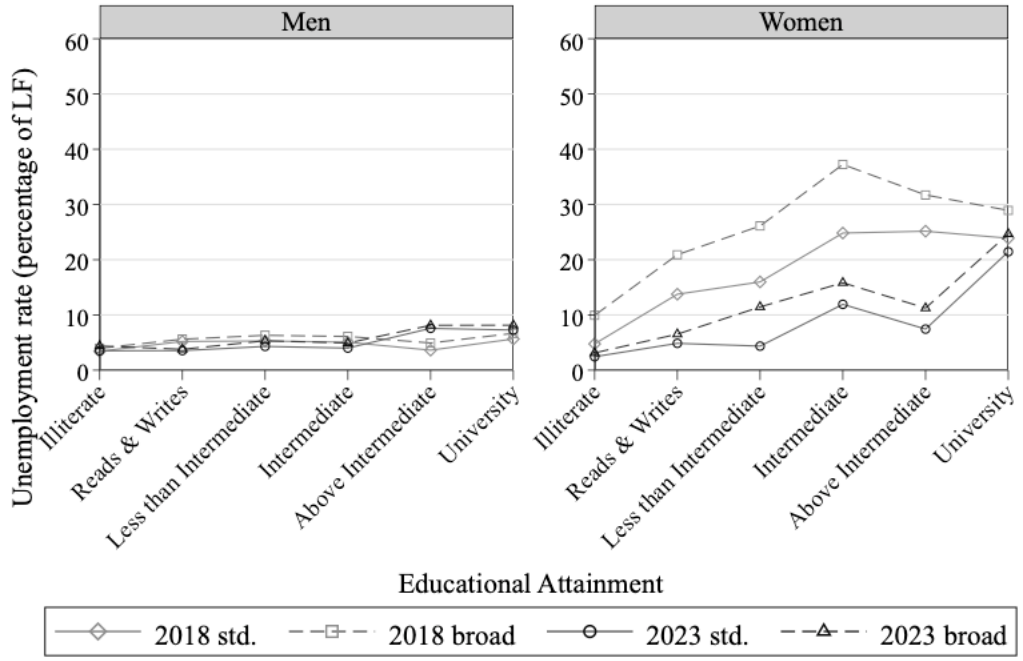
Source: Authors' calculations based on ELMPS 2018-2023

6.2. The education pattern of unemployment

Figure 24 explores the unemployment rate by education level, definition, and sex, comparing 2018 and 2023. For men, unemployment is below 10 percent across all education levels. Unemployment appears to have fallen very slightly for the less educated from 2018 to 2023 and increased very slightly for those with higher education for men. For women, unemployment rates have dropped particularly for those with intermediate levels of education. In 2018, women with intermediate and

above intermediate education had the highest unemployment rates under both definitions – 37 percent for the intermediate educated using the broad definition and 25 percent using the standard definition. In 2023, unemployment rates for intermediate educated women were 16 percent using the broad definition and 12 percent using the standard definition, more than halved. Unemployment rates also fell for those women with less than intermediate education and below but started out at more moderate levels. Unemployment has been more persistent for university graduates, who had a broad unemployment rate of 29 percent in 2018 and a standard unemployment rate of 24 percent. In 2023, the broad unemployment rate was down to 25 percent and the standard unemployment rate 21 percent. This was the highest unemployment rate of any group of women in 2023. University educated women may be more likely to persist in unemployment, and with a smaller relative gap between standard and broad definitions, because an appreciable fraction do ultimately work, as shown above.

Figure 24. Unemployment rate (percentage), standard vs. broad definition, by education and sex, ages 15–64, 2018, 2023



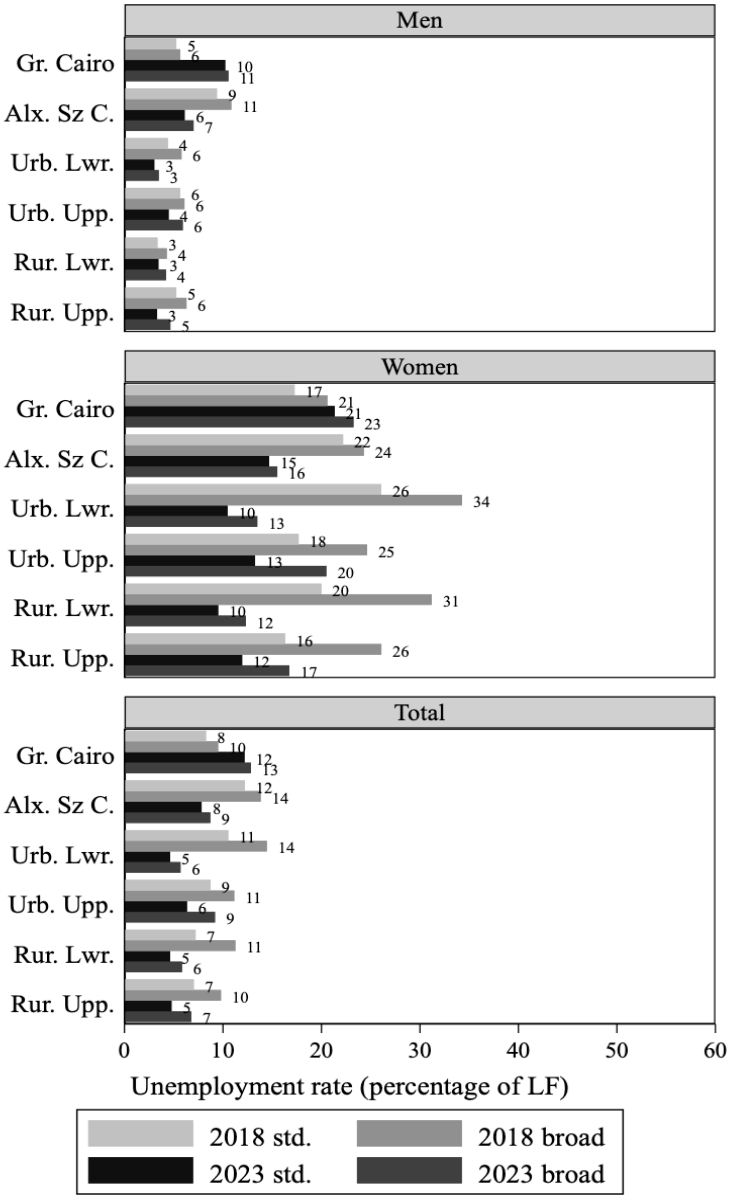
Source: Authors' calculations based on ELMPS 2018-2023

6.3. The regional pattern of unemployment

Unemployment rates have been rising over time in Greater Cairo but falling everywhere else. Figure 25 shows both definitions of the unemployment rate in 2018 and 2023 by sex and region. Focusing on the standard unemployment rate, in Greater Cairo unemployment rose from 8 percent to 12 percent from 2018 to 2023. Elsewhere, unemployment fell, from a range of 7-12 percent in

2018 to 5-8 percent in 2023. The increase in Greater Cairo was driven primarily by increases for men, from 5 percent to 10 percent; increases for women were smaller, from 17 percent to 21 percent. Elsewhere both men and women experienced declining unemployment. Unemployment for men in 2023 was highest in Greater Cairo, at 10 percent vs. 3-6 percent elsewhere. Likewise, unemployment for women in 2023 was highest in Greater Cairo, at 21 percent, ranging from 10-15 percent elsewhere.

Figure 25. Unemployment rate (percentage), standard vs. broad definition, by region and sex, ages 15–64, 2018, 2023

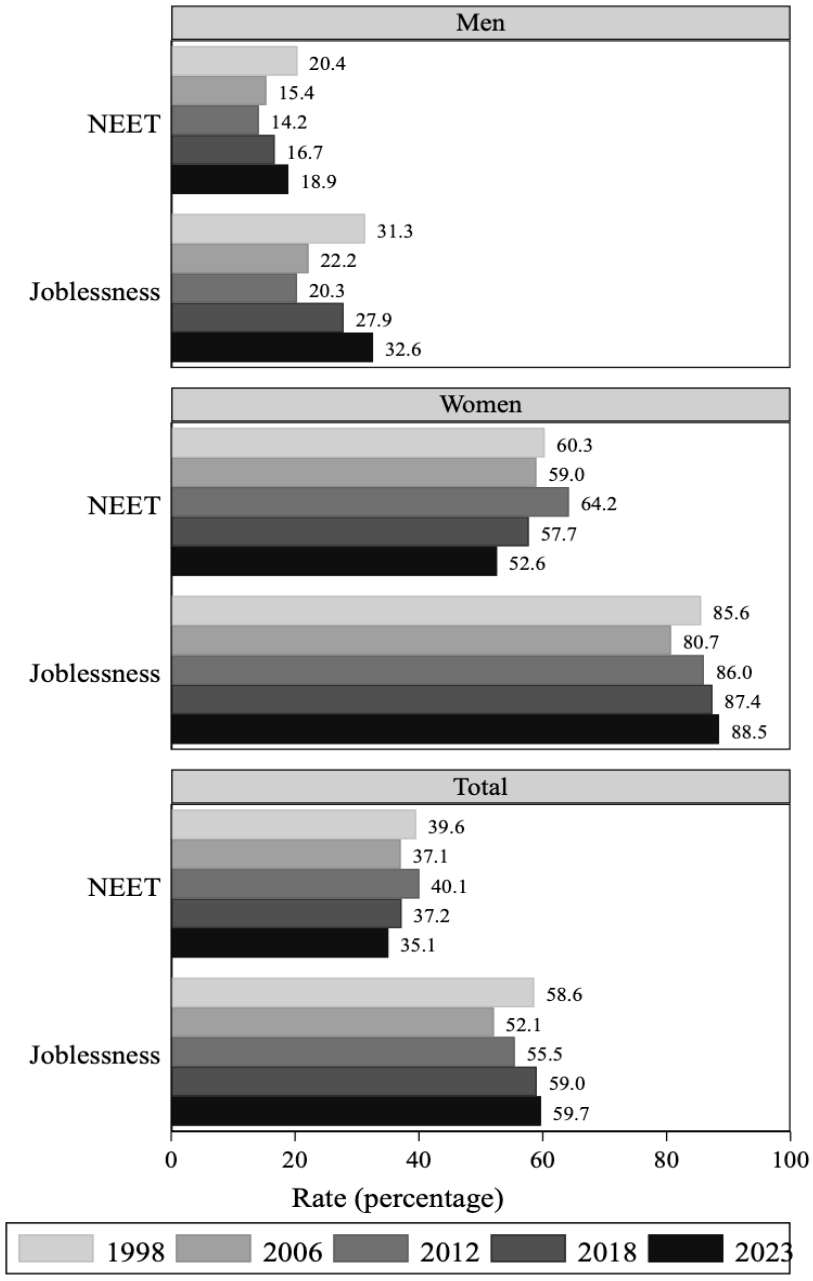


Source: Authors' calculations based on ELMPS 2018-2023

7. Youth not in education, employment or training (NEET) and youth joblessness

Youth in Egypt have often struggled with difficult and protracted transitions to adulthood (Assaad and Barsoum 2009; Assaad and Krafft 2021; Assaad, Krafft, and Salemi 2023; Amer and Atallah 2022). Figure 26 explores two metrics of this challenge among young people aged 15-29: the percentage NEET, among all youth, and joblessness, being not in employment or training specifically among those not in education. NEET affects more than a third of youth, and more than half of youth not in education are jobless. Although NEET has declined a bit in recent years, from a high of 40.1 percent in 2012 to 35.1 percent by 2023, joblessness has not. Joblessness was at its lowest level, 52.1 percent, in 2006, and rose over time to peak at 59.7 percent in 2023. The rise in joblessness indicates that declines in NEET are driven by time spent in education– not increases in employment. The patterns for women track the overall trends in general, with 52.6 percent of young women in 2023 NEET and 88.5 percent jobless. Concerningly for men, both NEET and joblessness have been rising since 2012. NEET for men was at a low of 14.2 percent in 2012 and reached 18.9 percent in 2023, while joblessness was at a low of 20.3 percent and reached 32.6 percent. These results suggest that, while education has expanded, school-to-work transitions have become increasingly difficult, as suggested in other research as well (Assaad, Krafft, and Salemi 2023; Assaad and Krafft 2021; Amer and Atallah 2022; Roushdy and ElKhouly 2024).

Figure 26. NEET and joblessness rates (percentages), by sex, ages 15-29, 1998–2023



Source: Authors' calculations based on ELMPS 2018-2023

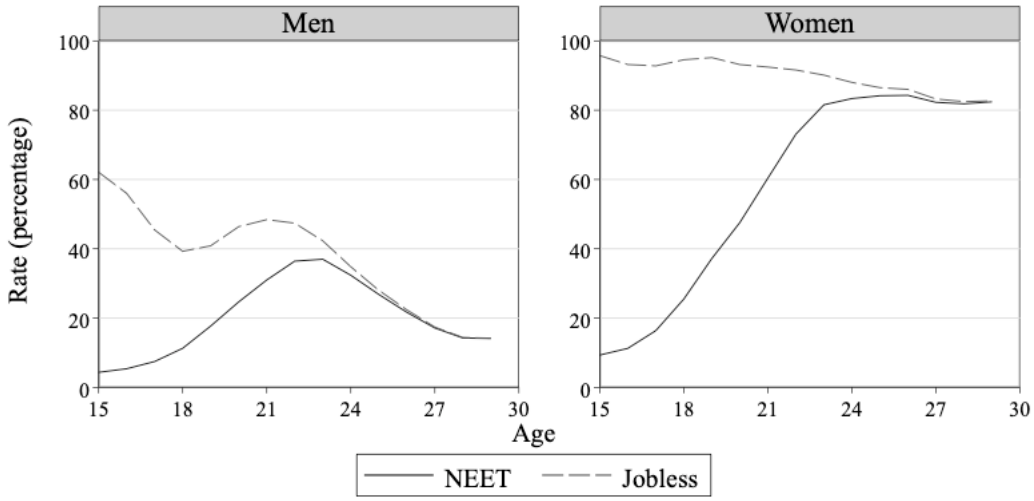
Notes: NEET=Not in Employment, Education, or Training. Only in 2023 is data on training available. Joblessness is being not in employment or training among those not in education.

7.1. The age profile of NEET and joblessness

Figure 27 investigates NEET and joblessness rates by age. Unsurprisingly, NEET rates are initially low for men and women at age 15, when the vast majority remain in school. NEET rates rise for

men through age 22 before plateauing and starting to fall through the late 20s, but still remaining elevated at above 15 percent. NEET rates for women increase from ages 15 onwards, peaking around age 24 at around 84 percent, and remaining above 80 percent thereafter. Joblessness rates for men have a bimodal distribution, with a peak above 60 percent at age 15 and again at almost 50 percent around ages 20-22. Joblessness rates are 40 percent or higher for young men from ages 15-24. For women, joblessness rates decline relatively steadily with age, from more than 95 percent at age 15 to nearly 80 percent in the late 20s.

Figure 27. NEET and joblessness rates (percentages), by sex and age, ages 15-29, 2023

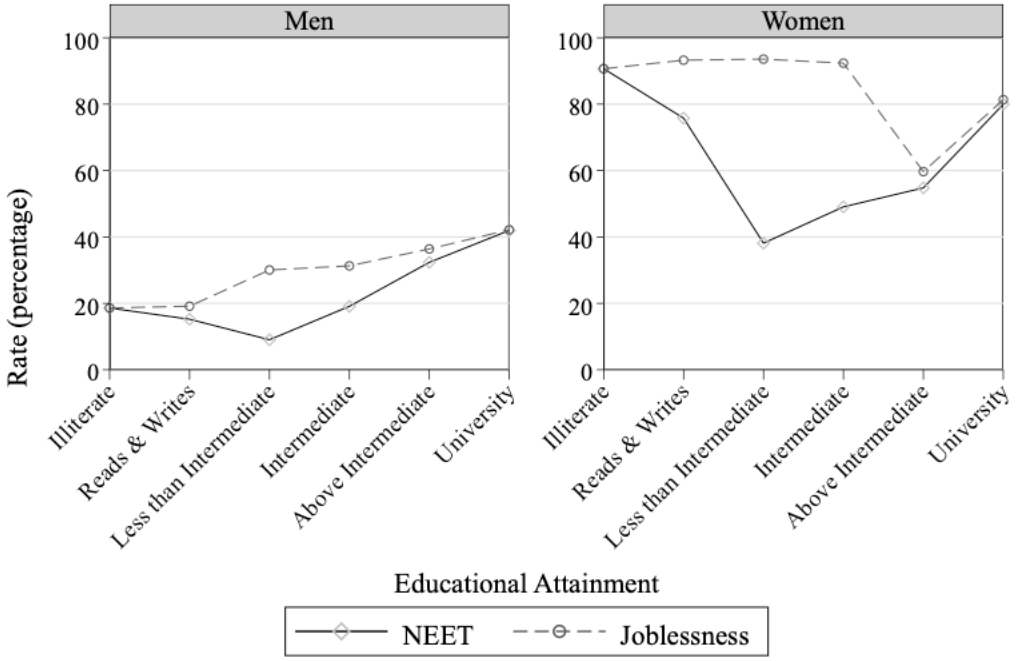


Source: Authors' calculations based on ELMPS 2023

Notes: NEET=Not in Employment, Education, or Training. Joblessness is being not in employment or training among those not in education.

Figure 28 explores the education profile of NEET and joblessness among those aged 15-29, by sex. As expected, NEET is lowest for the less than intermediate group, as this is a group that is largely in intermediate education still. For men, NEET and joblessness are fairly similar, slightly below 20 percent, for those who can read and write than those who are illiterate. Past read and write, joblessness rises with education, reaching 42 percent for male youth with university education. For young women, joblessness is flat at more than 90 percent across illiterate through intermediate education levels, but is still high, at 81 percent, for young female university graduates. Young men and young women thus have somewhat opposite education patterns of joblessness, with higher joblessness for the educated among young men, but lower joblessness for the educated among young women.

Figure 28. NEET and joblessness rates (percentages), by sex and education, ages 15-29, 2023



Source: Authors' calculations based on ELMPS 2023

Notes: NEET=Not in Employment, Education, or Training. Joblessness is being not in employment or training among those not in education.

8. Conclusions

Because of recent population trends, demographic pressures on the Egyptian labor market are at a low point as of 2023. The youth bulge generation are in their prime working ages and their sons and daughters that make up the large "echo" generation have not yet reached labor market entry age. Together with falling participation rates, this translates into reduced pressures on labor market entry, and in turn into falling unemployment rates. These favorable demographic trends will soon end as the echo generation makes it way to the labor market over the next decade or so. They have already placed substantial pressure on the primary and secondary education system.

There is, however, good news on the long-term demographic front. Fertility rates, which had increased just as the youth bulge generation was coming into its peak fertility years from the mid 2000s to the mid 2010s, have recently fallen appreciably. The total fertility rate declined from a recent high of 3.5 children per women in 2014 to 2.9 in 2021 (according to the EFHS) and is now estimated at 2.2 children per woman (according to the ELMPS 2023).

The new entrants to the Egyptian workforce are also increasingly educated, with the gender gap in education narrowing appreciably among young cohorts and will soon reverse in favor of women

given their greater enrollments rates in higher education. Since educated workers are more likely to remain unemployed as they search for formal jobs, this combined with the impending entry of the echo generation could raise future unemployment rates.

Despite the increase in educational attainment, the Egyptian economy is increasingly failing to make full use of its human resources. Rates of participation in the labor force and employment rates are falling for both men and women. While the declines in participation and employment are concentrated among younger men, they are affecting men up to age 35. They are also affecting men of all education groups but are larger for those with intermediate and higher levels of education. Declines in participation and employment among women are concentrated among more educated women of marriage age and are steepest among university graduates. This is a group that had historically relied on government employment (Assaad, AlSharawy, and Salemi 2022). Some married women are increasingly resorting to self-employment to access more flexible forms of work. As public sector employment opportunities dwindled, women initially had high unemployment rates as they queued for the increasingly scarce government jobs but are now leaving the labor force altogether. It appears that the deep discouragement is spreading to single women as well, a group that has seen sharp drops in employment rates.

Despite falling employment rates, unemployment rates are also falling in Egypt. This apparent paradox results from changing participation behavior and the temporarily reduced demographic pressures on the Egyptian labor market. Unemployment is still primarily a labor market entry phenomenon in Egypt. The declines among men are concentrated among 15–19-year-olds. The decline affects intermediate and lower educational levels while the more educated have seen an increase in unemployment.

Among women, the decline in unemployment is much broader, affecting women across ages and from all educational groups, but is less pronounced for illiterates and university graduates. While broad unemployment is substantially higher than standard unemployment for women, it is also declining over time and the gap between broad unemployment and standard unemployment is reducing. This suggests that women who were in the past declaring themselves desiring and available for work, but not actively searching are now saying they are not desiring or available for work, a possible sign of deep discouragement. For many of these women, public sector employment was the only viable option and as these opportunities dried up, they no longer saw any prospects in the labor market. In the context of declining employment rates, the decline in the female unemployment rate should not be seen as a positive sign since it just indicates deep discouragement about finding suitable work prospects on the part of Egyptian women and a growing lost opportunity for the Egyptian economy and society.

Regionally, employment rates have been falling everywhere, but more so in Greater Cairo. The decline in Greater Cairo is particularly pronounced for women. Unemployment rates have been falling everywhere except in the Greater Cario region, where they almost doubled for men.

Concerningly, joblessness rates are rising among young people not in education. Furthermore, NEET is rising for men. These results indicate that the falling participation rates are not due to more time spent in education, but to a more protracted transition to employment after finishing school. While NEET rates have fallen among young women, this appears to be because they are spending more time in school rather than more time in employment. Their jobless rates are in fact very high and slightly increasing over time.

Despite falling unemployment rates, the picture that emerges of the Egyptian labor market is not encouraging. While there is rising educational attainment, there is less intensive use of these human resources as indicated by falling participation and employment rates. Young men are more often jobless after completing their education and educated women are increasingly being discouraged about their prospects and leaving the labor force altogether.

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