

Arab Israeli Women Entering the Labor Market: Higher Education, Employment, and Wages

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Hadas Fuchs and Tamar Friedman Wilson*

Introduction

In recent years, much public attention has been paid to the issue of education and employment within the Arab Israeli sector. This brief examines developments in high school education and higher education among Arab Israeli women, alongside employment trends. Furthermore, it distinguishes between the trends observed in various groups within the Arab Israeli population: Muslims, Christians, Druze, and Bedouin.¹ The brief is based primarily on an in-depth study published in the *State of the Nation Report 2017* on education and employment among young Arab Israelis (Fuchs, 2017).

Historically, Arab Israeli women have had very low employment rates, as well as low levels of education relative to Arab Israeli men and Jewish women. Yet recent years have witnessed a significant improvement in the educational achievements of this segment of the population — in bagrut (matriculation) qualification, high school study majors, and the pursuit of academic studies. Employment rates of Arab Israeli women are still low and are not increasing as rapidly. However, given that Arab Israeli women with an academic degree are employed at much higher rates than those without, there is reason to hope that the strides made in education will be accompanied by improvements in employment in the coming years.

There has been a substantial increase in the share of Arab Israeli women qualifying for bagrut certificates over the past two decades, and many of them study in science and engineering tracks in high school. The share of Arab Israeli women pursuing higher education has also significantly

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1 According to estimates from the Central Bureau of Statistics, in 2015, 85% of Arabs in Israel were Muslim, including Bedouin (18% of the Israeli total population), 7% were Christians (1.6%), and 8% Druze (1.6%). The database used for this study includes men and women between the ages of 18 and 36 in 2014. The breakdown of the Arab Israeli population in the database was 63% non-Bedouin Muslims (henceforth “Muslims”); 9% Christians; 11% Druze, and 17% Bedouin, of whom 75% live in the Negev and 25% in the Galilee.

increased, especially among Druze and Bedouin women, who in the past were less likely to attend college.

In contrast to the rapid improvement in education, employment rates for Arab Israeli women have been increasing more slowly. Notably, a very large share of Arab Israeli women continue to study education and pursue employment in this field, even though the labor market is saturated. In order to balance the market, there is a need to direct female students toward other fields, to increase the supply of quality, suitable jobs, and to create support mechanisms for women who work in fields that are not considered classic “women’s jobs.”

High school and qualifying for higher education

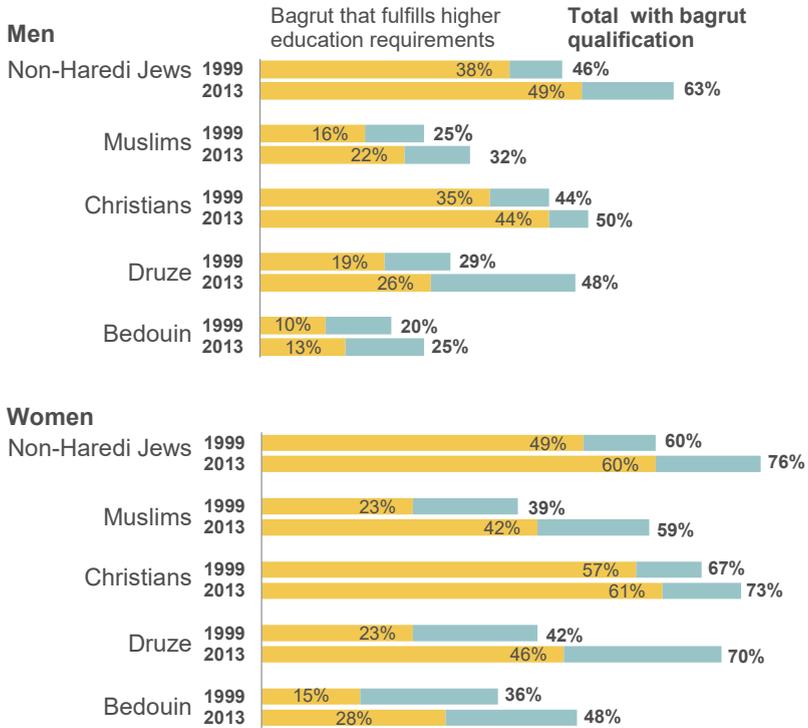
Given that among Arab Israeli women, in particular, having an academic degree is so strongly linked to employment, it is important to examine early milestones in the process of qualifying for higher education — that is, performance on the bagrut and psychometric exams.²

Bagrut achievements by Arab Israeli women are approaching those of non-Haredi Jewish women (henceforth “Jewish women”), surpassing the more moderate improvement among Arab Israeli men (Figure 1). Furthermore, the lower socioeconomic status of the Arab Israeli population, on average, seems to contribute to the gaps that remain. When controlling for socioeconomic backgrounds (education and income of parents and number of siblings), the matriculation rates among all sub-groups of Arab Israeli women are higher than those among Jewish women.

2 The Israeli bagrut exam and certificate is a matriculation exam which is often compared to the NY State Regents Examination. A bagrut certificate is awarded to pupils who pass the subject-matter examinations in each exam. The bagrut certificate should not be confused with a high school diploma which signifies the completion of 12 years of study. The psychometric exams are standardized tests in Israel, generally taken as a higher education entrance exam and similar to the SATs in the US. The psychometric exams cover three sections: quantitative, verbal reasoning and English.

Figure 1: Share of those with a bagrut qualification

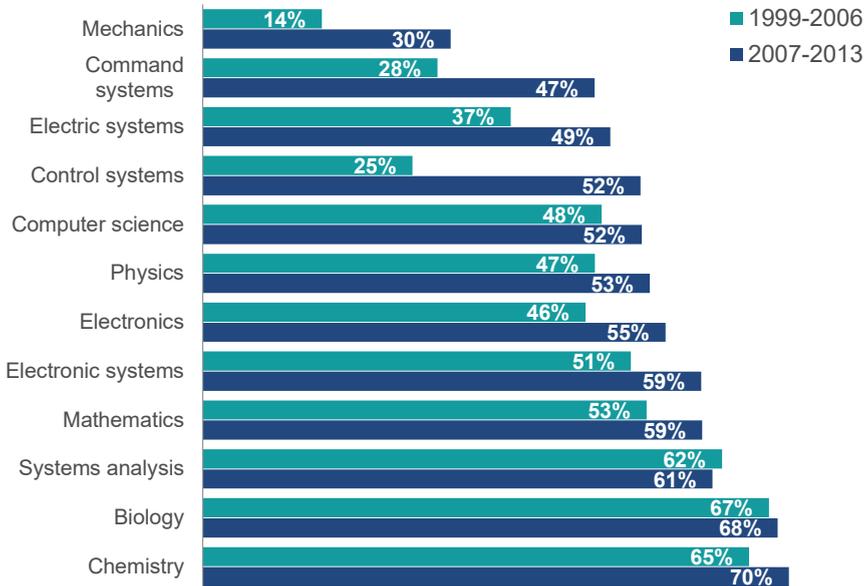
Out of the cohort



Source: Hadas Fuchs, *State of the Nation Report 2017*, Taub Center | Data: CBS, Administrative dataset

Not only are the gaps narrowing between Jewish and Arab Israeli women, but Arab Israeli women are choosing to study majors in high school that are associated with high future earnings potential – namely, science and engineering. In the Arab Israeli sector, unlike in the Jewish sector, there is a female majority in most high school science/engineering tracks (Figure 2). Among those qualifying for a bagrut certificate, the share of Arab Israeli women students in scientific-engineering majors ranged from 71% of Bedouin women to 85% of Arab Christian women in 2013, as compared with 39% of Jewish women.

Figure 2: Share of girls in science/engineering study majors in Arab high schools



Source: Hadas Fuchs, *State of the Nation Report 2017*, Taub Center | Data: CBS, Administrative datasets

With regard to the psychometric exam, a basic necessity for continuing on to higher education, the average score of Arab Israelis is lower than the average score among Jews. The score of Arab Israeli women was 472 points on average in 2014 as compared to 561 on average among Jewish women.³

Trends in higher education

Enrollment rates in higher education have risen in the Arab Israeli sector due primarily to an increase in the enrollment of Arab Israeli women. In contrast, there has been almost no change in the enrollment rates of Arab Israeli men in academic institutions in Israel.⁴ In particular, there has been a notable rise in enrollment among Bedouin and Druze women — an increase

³ Psychometric exam scores range between 200 and 800 and are normally distributed.

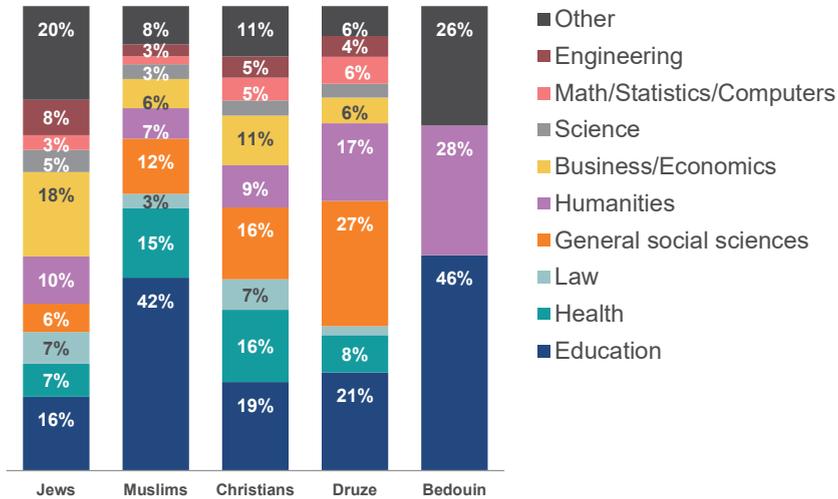
⁴ The data do not include Arab Israelis pursuing an academic degree abroad, which, according to various estimates, account for about one-third of all Arab Israelis studying for an academic degree.

of nearly 50% between 2008 and 2013. Despite this trend, the drop-out rate among Arab Israeli students is higher than among Jewish students (non-Haredi): 38% of Arab Israeli men and 24% of Arab Israeli women do not complete their degree, in contrast to 25% and 18% among Jewish men and women, respectively (Regev, 2016).

While about half of all Jewish women ages 30-33 had an academic degree as of 2014, along with a similar percentage of Arab Christian women, the rate among other Arab Israeli women was lower — standing at 23%, 19%, and 16% for Muslim, Druze, and Bedouin women, respectively. However, these rates are double those of male degree holders in the same population groups. Furthermore, due to the substantial growth in the share of Arab Israeli women pursuing higher education, along with relative stability in the rate among Jewish women, the gap is expected to narrow.

What subjects do Arab Israeli women study in higher education?

Although a large percentage study science and engineering in high school, Arab Israeli women pursue occupations in the education field at high rates and in science and engineering at relatively low rates. As shown in Figure 3, a particularly high share of Muslim and Bedouin women study education — 42% and 46%, respectively — while the rate for Druze and Arab Christian women is less than half those figures (2012-2014). It is also important to note that Druze women study humanities or general social sciences at relatively high rates — degrees that do not open the door to many employment possibilities. As will be discussed later in the brief, it seems that the demand for teachers in the Arab education system is not growing and there are already indications that there is an excess of Arab Israelis in this field. Theoretically, a solution to the surplus of Arab Israeli teachers could be placement in Jewish schools, but the share of Arab teachers in Jewish schools is negligible and has barely increased over the years. In addition to education, the healthcare fields are also popular among Arab Israeli women (as they are among Arab Israeli men).

Figure 3: Study majors of female third-year students, 2012-2014

Note: Not including students in the Open University. For Bedouin students, categories, with the exception of education and humanities, were combined due to the small number of observations. Computer engineering was combined with mathematics, statistics and computers.

Source: Hadas Fuchs, *State of the Nation Report 2017*, Taub Center | Data: CBS, Administrative datasets

The low rates of Arab Israeli women studying computers and engineering in academic institutions is surprising given the achievements of Arab Israeli girls in high school who, as noted, study in science and engineering tracks at high rates relative to Arab Israeli boys and Jewish girls. This trend contrasts with what is happening among Jewish girls. Although a smaller share of Jewish girls choose scientific majors to begin with, the girls who studied science in high school subsequently pursue computers and engineering in college at relatively high rates. Especially striking is the difference between the percentage of girls who study science and engineering majors other than biology or chemistry in high school and then continue with related studies in college: 31% among Jews; 21% and 22% among Arab Christians and Druze, respectively; and, only 9% among Muslims.

Employment and wages

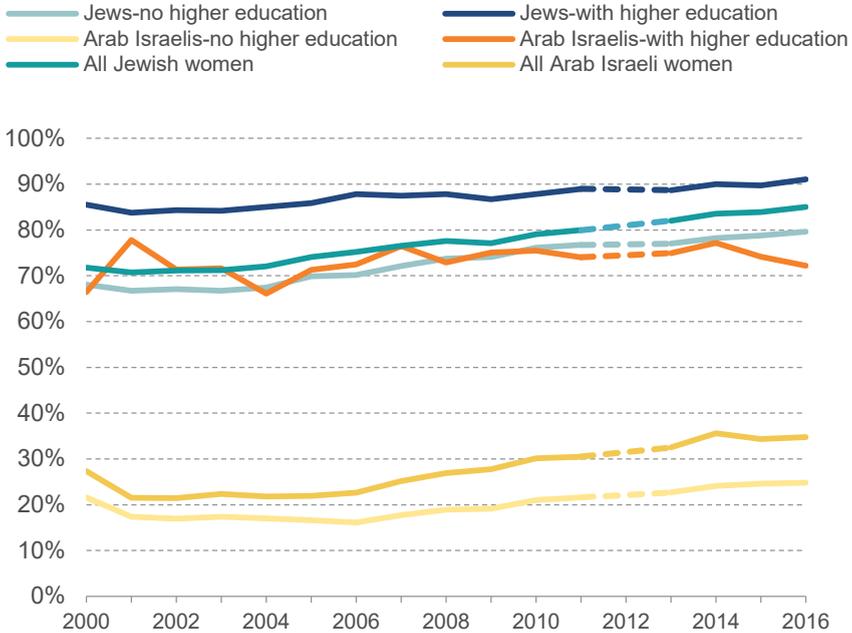
In contrast to significant improvements in high school and higher education achievement, which contribute to narrowing educational gaps between Arab and Jewish Israelis, the rise in employment among Arab Israeli women has witnessed a much more moderate trend.

Arab Israeli women are employed at fairly low rates, relative both to Jewish women and to women in other OECD countries (Fuchs, 2016). The employment rate among Arab Israeli women ages 25-54 rose from 21% in the early 2000s to 35% in 2016 — yet, despite this increase, the rate is still low compared to the employment rate of Jewish women. Furthermore, the change in the employment rate of Arab Israeli women in percentage points was similar to the change among Jewish women over this period, such that the gap between the two groups hardly narrowed (Figure 4). Alongside these trends, the share of unemployed Arab Israeli women decreased slightly between 2012 and 2016, reaching just over 5%. This indicates that there has not been an increase in the percentage of Arab Israeli women who want to work but are unable to find a job.

Arab Israeli women with an academic degree are employed at relatively high rates — about 75% — and this rate has hardly changed over the past decade. The employment rate of non-academic Arab Israeli women is, however, slowly increasing. Thus, the overall rise in the employment rate of Arab Israeli women stems from a combination of increased educational achievements and increased employment among non-academics.

Examining employment by age groups, it is interesting to note that there was a particularly notable increase in the employment rate of non-academic women aged 45-54. While this group worked at very low rates — about 10% — at the beginning of the 21st century, that rate had doubled by 2016. Among the younger age groups, employment has risen at much lower rates.

The still relatively low employment rates of Arab Israeli women are surprising given the improvements that have taken place in the realm of education. In Government Resolution 1994 issued in 2010, the government of Israel set employment rate goals for 2020, including a goal of 41% employment for Arab Israeli women aged 25-64. The employment rate of women of these ages has increased by 6 percentage points since the decision, standing at 34% in 2017 (Central Bureau of Statistics, 2018), indicating that the goal is still a far way off. Nonetheless, high rates of employment among women with an academic degree alongside the 50% increase in Druze and Bedouin women pursuing higher education (between 2008 and 2013), indicate that we will likely see a more significant improvement in the integration of Arab Israeli women into the labor market in the coming years. Another indication is the relatively sharp increase in Arab Israeli women's employment rate in the past year — a rise of 2.5 percentage points.

Figure 4: Employment rate, women ages 25-54

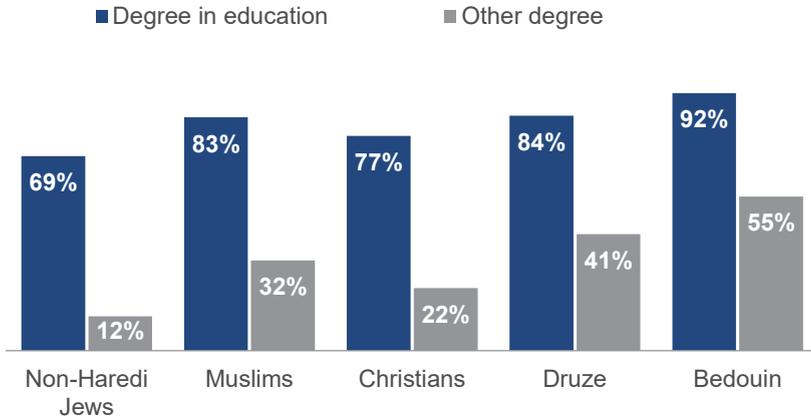
Note: Due to changes in the *Labor Force Survey* methodology in 2012, there is a break in the data. Data have been concatenated to their level after the break.

Source: Hadas Fuchs, Taub Center | Data: CBS, *Labor Force Survey*

Among young employed women, the differences between the fields in which Arab and Jewish college graduates are employed parallel those differences in academic study majors — with a large percentage of Arab Israelis working in the field of education. Among Muslims, Druze, and Bedouin, over 50% of employed female degree holders work in education — a share that is nearly three times higher (or more) than the share among Jewish women.

Figure 5: Women employed in education, by degree, 2013

Ages 25-35

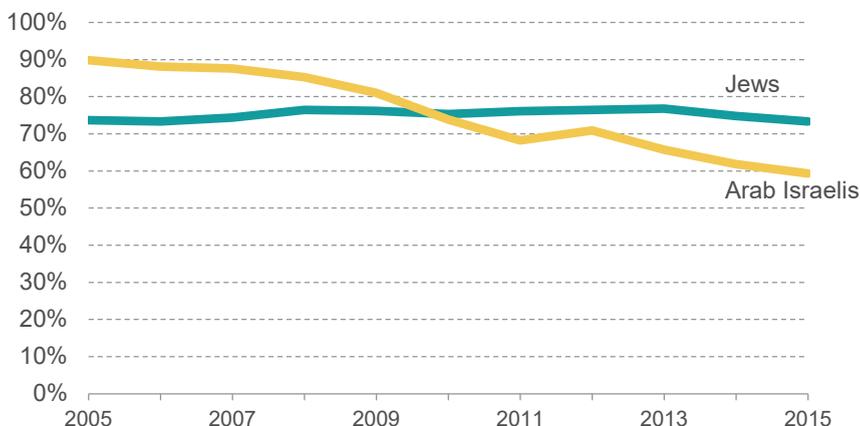
Source: Hadas Fuchs, *State of the Nation Report 2017*, Taub Center | Data: CBS, Administrative datasets

The story of Arab Israeli women in the field of education is a complex one. A significant share of Arab women aged 25-35 with a degree in education are employed in the field. In addition, a large share of women college graduates with degrees in different areas are employed in education as well, especially among the Druze and Bedouin (Figure 5). This reveals that the share of Arab Israeli women employed in education is actually even higher than the already large share who earn a degree in this field. Furthermore, the average number of working hours of Arab teachers rose from 25 hours a week in 1990/91 to 31.5 hours in 2016/17 – higher than the average number of hours for teachers in the Hebrew education system (CBS, 2017) – and the share of women employed part-time decreased (CBS, *Labor Force Survey*). It appears, therefore, that despite the growth in the share of women pursuing higher education and seeking employment in education, many women are able find work, and with a large number of hours.

At the same time, the data show that in the past few years, Arab Israelis who studied education are having trouble finding jobs in the field. While the percentage of Jews who received training in education and have since entered the field of teaching has remained relatively stable over the past decade or so, among Arab Israelis there has been a notable decline (Figure 6).⁵

⁵ When looking more specifically at those with training in education who entered the field of teaching within two years of receiving their degree or certificate (as opposed to Figure 6 which looks at those who entered the field at any point through 2015), there has also been a decline among Arab Israelis: from 63% of those who received a degree or certificate in 2005 to 54% in 2015. To compare, the share among Jewish Israelis rose from 49% to 67% over the same period.

Figure 6: Percentage of teacher-training graduates working as teachers, by year of graduation



Source: Hadas Fuchs, Taub Center | Data: CBS, *Teaching Staff in Schools*

It is also important to note that demand for Arab Israeli teachers is not expected to grow for a number of reasons. Firstly, fertility rates in the Arab Israeli sector are declining, such that the population, while still growing, is growing at a much slower rate than in the past. Secondly, the substantial growth in enrollment that took place in the Arab education system — particularly among girls (from 59% in 1990 to 94% in 2015 for girls ages 14-17, according to Blass, 2017) — resulted in similar enrollment rates among Jewish and Arab Israelis. Therefore, the Arab education system has reached near full enrollment and the growth is not expected to continue in the future. A third indication that demand for teachers will not continue to grow is that the trend of reducing the number of students per class — necessitating, by extension, more teachers — has recently stabilized. Therefore, the high share of Arab Israeli women studying education has already led to an excess of women in the field, which is likely to increase further in the future.

In addition to the multitude of graduates with degrees in education, the supply of teachers does not necessarily meet regional needs. While more teachers are needed for the Bedouin population in the south, there is an excess of teachers in the north. In order to balance supply and demand, the Ministry of Education offers incentives to Arab teachers from the north to teach in Bedouin schools in the Negev, subsidizing rent and contributing to the teachers' *Keren Hishtalmut* (study savings fund). In fact, about 35% of teachers in Arab education in the Negev live in Haifa and the North.

The differences between Jewish and Arab Israelis are also evident in the average wages of both men and women. The wage gaps between Jews and Arab Israelis are low among graduates with degrees in the fields of health and education (occupations in which most jobs are part of the public sector), and are large among those who studied engineering, computer science, business administration and management. Among women, the wage gap between Jewish and Arab Israelis with a degree in computers is very high, standing at about 60% (apparently due to differences in mathematical skills, as exhibited in the quantitative section of the psychometric exam).⁶

Summary

Usually, socioeconomic discussions about the Arab Israeli sector focus on the gaps that still exist between this sector and Jewish Israelis, and do not emphasize the areas where substantial improvements have been made. This brief highlights the large strides that have been made by Arab Israeli women in education and their improvements, though more limited, in employment. At the same time, the brief addresses opportunities that exist for further improvement among this segment of the population.

Arab Israeli women are one of the two population groups in Israel (along with Haredi men) with low employment rates and, as mentioned above, Arab Israeli women's employment is growing, but remains low. Still, there is much potential for growth. This is because the share of Arab Israeli women pursuing higher education has been increasing and, among Arab Israeli women with a degree, employment rates are relatively high. Thus, higher education likely provides an opportunity for improving the employment of Arab Israeli women, which could be a source of growth for the larger Israeli economy.

The educational attainments of Arab Israeli women have improved for all sub-groups within the population, but not to the same degree. Arab Christian women have the highest achievements on all indices: bagrut exams, the share with an academic degree, employment rates, and fields of employment. Among Muslim women, who are the largest sub-group, there were general improvements on educational indices, an increase in gaps in their favor over Muslim men, and a marked tendency to pursue a degree in the field of education. The achievements of the Druze women are mixed: there was a large improvement in their matriculation rates, but the fields in which they are employed are limited and young female Druze academics have the lowest average monthly wage out of academics across the sectors.

⁶ It is important to note that because of the limitations of the data, differences in work hours, which can greatly affect wages, were not taken into account (though differences in employment experience and bagrut and psychometric exam scores were taken into account).

The Bedouin population has the lowest achievements on all indices, despite a significant improvement among women. The vast majority of Bedouin women with an academic degree work in education.

The data shed light on some of the obstacles faced by Arab Israeli women. First of all, low psychometric exam scores serve as a barrier to entering certain academic study tracks, or higher education at all, which also reflects issues relating to the quality of education in Arab high schools.⁷ It is also possible that proficiency in the Hebrew language can act as a barrier to entering certain fields. While working in education locally could allow Arab Israelis to work in Arabic, other fields might necessitate a greater grasp of the Hebrew language.

Another challenge that still remains is the high percentage of Arab Israeli women who pursue careers in the field of education, where the market is saturated, and, conversely, the small percentage who pursue careers in the fields of science, high tech, and engineering. Arab Israeli women, despite their traditional society, actually study science/engineering majors at the same or higher rates than their male peers in high school and at higher rates than Jewish women. Nonetheless, in contrast to Jewish women, who if they studied science/engineering majors in high school are more likely to continue studying these subjects in college, Arab Israeli women are more likely to change course in college.

However, a number of opportunities arise from the findings as well. In addition to improving the Arab school system to address the challenges described above, better counseling for female Arab Israeli students at the high school level, including increasing awareness about the excess number of graduates with a degree in education in this sector, could help guide students to choose fields that are in demand in the labor market. In tandem, supporting Arab Israeli women already enrolled in higher education throughout the course of their studies, especially those in fields where there are not many other female Arab students, could help students succeed. Furthermore, it seems that one of the primary reasons for choosing to work in the field of education is that this field allows women to work near home. Increasing the local supply of suitable employment opportunities, particularly in fields in which there is a high demand for workers, and improving access to jobs outside of Arab Israeli localities, could encourage Arab Israeli women to pursue careers in a wider range of fields.

Though gaps between the Jewish and Arab Israeli sectors remain, the findings of this brief show many positive trends among Arab Israeli women. These trends can lead to substantial changes in the integration of this population group into the labor market, and thus serve as a source of future growth for the Israeli economy.

7 It has been argued that the exam has a cultural bias, but this cannot explain the entire gap.

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