TAUB CENTER
FOR SOCIAL POLICY STUDIES IN ISRAEL

A Sociodemographic Profile of the South

Alex Weinreb

This research was generously supported by the Mack Ness Fund

Policy Paper No. 04.2021

Jerusalem, June 2021

Taub Center for Social Policy Studies in Israel

The Taub Center was established in 1982 under the leadership and vision of Herbert M. Singer, Henry Taub, and the American Jewish Joint Distribution Committee. The Center is funded by a permanent endowment created by the Henry and Marilyn Taub Foundation, the Herbert M. and Nell Singer Foundation, Jane and John Colman, the Kolker-Saxon-Hallock Family Foundation, the Milton A. and Roslyn Z. Wolf Family Foundation, and the American Jewish Joint Distribution Committee.

Lay-out: Laura Schreiber

Center address: 15 Ha'ari Street, Jerusalem, Israel
Telephone: 02 5671818 Fax: 02 5671919
Email: info@taubcenter.org.il Website: www.taubcenter.org.il

Table of Contents

Executive Summary

A Sociodemographic Profile of the South

Alex Weinreb

This report focuses on changes in the sociodemographic and economic profile of Israel's Southern District, which broadly includes the Negev. An initial chapter clarifies some introductory themes related to the delineation of these geographic areas, the region's subpopulations, and the writing period, and it also briefly summarizes some of the major public investments in the South over the last 20 years.

The main body of the report comprises three empirical chapters. These employ a combination of aggregate data and household-based survey data from the Central Bureau of Statistics (CBS) to paint a comprehensive picture of several important sociodemographic and economic trends and characteristics. Each chapter is devoted to a particular set of topics that help us understand developments in Israel's south in the long term. Chapter 2 deals with issues in demographic growth. Chapter 3 discusses household size, migration, and real estate trends. Chapter 4 deals with changes in education selected characteristics of the labor market, particularly the level of labor market participation and relatively high-paying occupations.

Here we summarize the core empirical findings of this report.

Demographic growth and residential patterns

- The South has experienced substantial growth over the last 20 years, though this has largely been driven by growth in the Arab sector, and especially among people currently in their teens and 20s.

* Prof. Alex Weinreb, Research Director, Taub Center for Social Policy Studies in Israel; Department of Sociology, University of Texas at Austin. This research was generously supported by the Mack Ness Fund.

After many years of net negative migration out of the South, migration has become positive over the last few years.

- The South is populated not only by Jews and Muslims, but also by a substantial minority of "Others" who do not fall neatly into one of the two major religious groupings. In fact, there is a higher percentage of "Others" in Southern District than in any other district in the country.
- Arab fertility levels in the South have fallen sharply over the last 20 years — from over 9 children per woman to around 5 today — but that is still much higher than that of Jews and Others (around 3.1 children per woman).
- The South has a much higher percentage of people living outside urban areas (using the CBS definition of 2,000 residents), and that percentage has increased over the last 20 years, which means that rural populations have grown even faster than their urban counterparts. That is unusual in a contemporary developed country.

Together, these factors mean than the South is poised for rapid growth, driven disproportionately by its young Arab population. The issue is: to ride this demographic wave productively, it will help to have, retain, or attract a relatively skilled and educated population.

Household structure, migration to and from the South, and real estate trends

- Alongside the 20% increase in the number of households in the South between 2009–2019, there has been a slight reduction in the share of households that include co-resident adult children, and a slight increase in the number of childless households in general — these latter now account for about 40% of all households.
- Migrants to and from the South have a similar profile to those in other districts in terms of age, ethnicity and education: they tend to be under 40, not Arab, and more educated. However, migrants to and from the South differ from the national norm in terms of parents' education. After adjusting for a person's own education, we show that a person aged 20-39 with the most educated parents — either both have a BA or at least one has a higher degree — had only a 13% chance of moving out of the

South, which is about half the national average. This implies that the South is relatively "sticky" — it is better at retaining its highly skilled people than are other districts.

- Likewise, after adjusting for a person's own education, we show that the probability of in-migration to the South from elsewhere in Israel is higher for people with less educated parents. In other words, the South attracts a disproportionate number of first-generation higher-education graduates.
- People in the South have higher levels of economic satisfaction than people in any other district — with the sole exception of (Jewish) residents of Judea/Samaria. People in the South also outscore residents of Haifa, Central, Jerusalem and Tel Aviv Districts on life-satisfaction in general, an index that includes measures of satisfaction with neighbors and family.
- Where the South scores low relative to other districts is on a composite measure of satisfaction with living conditions, including one's own apartment, the local area, parks, cleanliness and safety. Only residents of Jerusalem and Tel Aviv do worse on this measure.
- In 2000, the average residence of Jews and others in the South had 3.7 rooms. By 2017, it had increased to 4.2 rooms, on par with residence size in the north, around 0.2 rooms more than in Jerusalem and Haifa districts, and 0.5 rooms more than in Tel Aviv. Only Central District has larger houses on average.
- The real estate market in the South has looked more resilient during the COVID-19 epidemic in terms of number of sales than that of all other districts. The South was the only district in the country in which combined sales in the second and third quarter of 2020 exceeded those of the same quarters in 2017 or 2018. This is a testament to strong ongoing demand. That demand is particularly concentrated in the 4.5–5 room sector, a core family-sized apartment.

Overall, these results point to a significant increase in quality of life in the South over the last couple of decades — from increasingly less cramped households to higher-than-average levels of economic and general satisfaction — that is reflected in both the relatively low outmigration of highly skilled individuals, and the greater readiness to buy into the region, even during the difficult and restrictive period of the COVID-19 epidemic. On the flipside, the higher rates of in-migration among people with less educated parents — including first-

generation higher-education graduates — suggests that the South is more of a destination of choice for people whose intergenerational stores of wealth are more limited.

Education and employment

Education

- There have been substantial increases in higher education in the South. Among Jews aged 30–44 in Southern District in 2000, around 23% had an academic degree. By 2017, this was true of around 40% of Jews in the same age group.
- There have also been substantial increases in university education among the South's Muslim population. Among 25–34 year olds, Muslims have 1.5 years less schooling then Jews. That is the same gap as in the North, and smaller than in any other district in the country.
- On the other hand, even with these increases in education, the share of people aged 30–44 in the South with a university degree remains the lowest in any district in the country.

Overall labor force participation

- Though the number of hours worked has climbed in Israel in general over the last decade, that increase has been a little sharper on average in the South, though it still somewhat lags behind Central, Tel Aviv and the Northern Districts.
- Within the South, adults classified as "Others" work more hours at all ages up to 60 than either Jews or Muslims. This is true for both men and women. After adjusting for educational attainment, men aged 25–54 who are members of an "Others"-headed household work between 4–10 hours more per week than their counterparts in Jewish-headed household from and between 13–19 hours more per week than their counterparts in Muslim-headed household.
- Among Jews in the South, religiosity is also inversely associated with number of hours worked at almost all ages, with secular Jews working the most, Haredim the least, and the traditional and orthodox in between. Again, this ranking is the same for both men and women at almost all ages.

- Assuming that current age-specific hours worked by members of each subpopulation would remain unchanged, a secular Jewish or Other man will work more hours across his lifetime than either a Haredi couple or Arab couple.

High-paying employment

- Although the South has relatively few high-paying tech jobs, it has the highest percentage of employees in well-paid manufacturing positions (computers, electronics, optical, pharmaceuticals, petroleum products), and in upper-level managerial or public administration positions. This suggests that there may be a regional concentration of the types of skill sets required for these occupations.
- There are differences in representation within these occupations across different subpopulations. In the high-end manufacturing sector, there is an over-representation of secular and traditional Jewish men and women, and Other men and women. Jewish men — especially traditional and religious — dominate the upper-level managerial and public administration sector. Arabs and Haredim, both men and women, are under-represented in all these higher-paying occupations.

Overall, therefore, notwithstanding a prior OECD publication that warned about the "low-skill trap" in the South, we have found evidence of significant improvements in human capital, very significant differences in labor force participation across subpopulations, and substantial remunerative employment outside high tech. Alongside that, the South continues to lag all other districts in terms of share of the young adult population with a university degree. Even if it takes a little more time for the fruits of recent and ongoing expansion in its higher education systems, alongside other investments, to ripen, there is no doubt that the efforts are worth it. As it says in Psalms: Those who sow in tears, shall reap in joy.

הזורעים בדמעה ברינה יקצורו

A Sociodemographic Profile of the South

Alex Weinreb

1. Introduction

This report documents trends in a range of socioeconomic and demographic factors in Israel's Southern District over the last two decades, and surveys the characteristics of the District's current residents. This has been a period of significant public and private investment in the South, driven in part by processes anchored in the region itself, and in part by exogenous events and processes. We summarize some of these investments below. For now, suffice to say that the scale of investment in the South makes it all the more important to understand longer-term trends in the region. As we shall show, those point to both considerable change on some measures but also to considerable continuity in others.

To properly interpret our findings, we take a two-pronged approach throughout the empirical part of this report: documenting trends in the South on their own terms; and showing the extent to which those trends conform to — or deviate from — changes in Israel nationally. Underlying this two-pronged approach is a key axiom of development in general: regions compete with one another for scarce public and private resources. For the South to be able to successfully compete in the Israeli context, policy-makers need to know where its relative advantages lie, and where they can strategically direct resources, either to further augment those advantages or to reduce relative disadvantages.

Following this introduction, the report is divided into three chapters. Each is focused on one or two important characteristics of the population that, in our view, will help us understand developments in Israel's south in the long term:

* Prof. Alex Weinreb, Research Director, Taub Center for Social Policy Studies in Israel. I wish to thank the Mack Ness Fund for its generous support of the research, Prof. Avi Weiss for his sharp and helpful comments on the first draft, Elon Seela, research assistant, for his contribution to the research, Ayelet Kamay for her fine editing, and Laura Schreiber for her assistance with the figures.

- Chapter 2. Demographic growth and residential patterns
- Chapter 3. Household size, migration, and real estate trends
- Chapter 4. Education and employment

Our primary focus is on trends since 2000. Chapter 2 uses macro-level data to describe national and regional trends. Chapters 3–4 mainly use household-level survey data from two nationally representative surveys fielded by the Central Bureau of Statistics (CBS) to track phenomena at the individual level: the Labor Force Survey (LFS) and the Social Survey (ISS). No single source of data provides a sufficient, let alone comprehensive, picture. But we believe that they complement each other. The whole, as the saying goes, is greater than its parts.

The remainder of this introduction is devoted to two objectives. The first is to offer some clarifications: delineating what we mean by the "South"; introducing the major subpopulations; and reminding readers about the unusual period during which this report was compiled. The second objective is to describe and summarize some of the more recent investments and government plans for developing the Negev and the South in general. All these will make it easier to interpret the empirical trends in the subsequent chapters.

Three clarifications

a. Area

In order to protect survey respondents' anonymity, neither publicly available survey data nor survey data made available to researchers in the Central Bureau of Statistics (CBS) research room allow us to identify people in small towns or settlements. Nor do they allow us to pull out different geographic areas within Southern District. This report is therefore focused on Southern district as a whole, not just on the Negev. Readers who want to know more about the Negev in particular can check aggregated data on several basic demographic or economic trends in particular cities or councils in the South.

Or they can consult tables made available by the CBS in its annual Statistical Abstract of Israel , typically published every July.[1] The critical limitation of these aggregated data is that they tell us nothing about the age and educational breakdown of those populations. As we show in the following chapters, these variables are critical for understanding the current situation and likely trends in the future.

We can identify breakdowns by age and education and a range of other variables using individual-level survey data, which, as noted above, lie at the core of Chapters 3 and 4. However, in these data the closest that we can get to identifying the Negev as a whole is by focusing on Southern District. This is the largest district in Israel. Comprising around 55% of the country's land mass, it is administratively divided into two subdistricts: Ashkelon and Be'er Sheva. The first of these includes the more heavily populated coastal strip, with Ashkelon, Ashdod and several other smaller towns. The Negev region largely falls within Be'er Sheva subdistrict, which extends east-west from the lightly populated Dead Sea and Arava, areas to the "Otef Aza" area around the Gaza border, and north-south from the agriculturally productive zones of the northern and western sections of the Negev through the windy desert highlands in the center to the Egyptian border and, eventually, Eilat.

b. Subpopulations

On any social measure, Israelis can be broadly differentiated on the basis of three characteristics: their ethnicity, religion and religiosity. Different combinations of these three are associated with quite different outlooks on the state, and a different life-course within it: variation in school system and educational pathways, military service, employment, and residential and family profiles. As a result, these characteristics both reflect and shape the "sector" to which each individual belongs. Equally important, the boundaries that distinguish between these sectors vary somewhat across different measures and across time.

An example of these shifting boundaries are the ethnic differences between Ashkenazim and Mizrachim. After two generations of integration and

1 We can also point to increases in the socioeconomic ranking of certain areas in the South. Sderot, for example, scored 3 on the CBS socioeconomic index in 1999, yet its score had improved to 5 by 2015. Across the same period the scores for Sha'ar Hanegev and Hof Ashkelon local councils also increased from 6 to 7. In fact, among the four local councils that include areas in "Otef Aza", only the ranking of the Eshkol local council fell (from 7 to 6).

intermarriage, the boundary between these populations has blurred, and the identities themselves have become more muted determinants of education and income than they once were. Within the Muslim population, in contrast, significant differences remain between Bedouin and non-Bedouin; within the Arab population,[2] between Muslims, Christians, and Druze; and within the Christian population, between Arab Christians and Christians from Russia and Ukraine — we return to these shortly. Finally, within each of these religious groups, there is a range of religiosity which itself can be measured in terms of either belief or practice. In the Jewish sector, religiosity is highly correlated with a large range of socioeconomic measures. Among Muslims, it is not.

We are able to disaggregate most trends in our data by the major subpopulations, especially by Jews, Muslims and "Others". But the data either do not allow us to distinguish certain groups — e.g., Bedouin from non-Bedouin Arabs, or limited sample sizes make it impossible to distinguish trends within some of the smaller groups. This is especially the case when we focused on the South alone.

Understanding the "Others" category is increasingly important in Israel in general, and in the South in particular since, as we show in the next chapter, the South has the largest percentage of "Others" in its population of any district in Israel. Briefly, this category refers to people who are not classified by the Ministry of Interior as Jewish in terms of their religious identity. But neither are they Muslim or Arab. People with this identity are either: (a) immigrants who came to Israel under the Law of Return but do not fulfill rabbinic authorities' criteria about their Jewish identity (e.g., no record of a Jewish mother); (b) the non-Jewish spouse of a Jewish immigrant or native-born Israeli; or (c) the children of any non-Jewish (and non-Arab) mother. Socially and ethno-politically this group is close to the Jewish secular sector in terms of school and language and labor and life course in general. This is also why they are often grouped together with Jews in a single "Jewish/other" statistical category by the Central Bureau of Statistics (CBS). But since laws of personal status in Israel are, following Ottoman legal precedent, defined by religious affiliation, these individuals are simply shifted into an "Others" or sometimes "unclassified" category.[3]

2 Throughout this document, we use the term "Arab" to refer to Arab citizens of Israel.

3 Ongoing measurement of these populations is further complicated by the conversion of non-Jewish immigrants, usually to Judaism, though efforts have been relatively unsuccessful numerically. Between the mid-1990s and 2015, only 8% of non-Jewish *olim* to Israel converted, with almost half of these doing it during mandatory military service (Shuki Friedman, IDI https://www.idi.org.il/articles/1575).

c. Writing period

This report was compiled during the 2020–2021 Coronavirus epidemic. That epidemic will inevitably affect some of the indices that we look at here. However, at the time of writing most of the data that we need to assess the impact of the epidemic are not yet available, even impact in the short-term. More importantly, given our focus on long-term trends, it is also far too early to assess the long-term impact of the epidemic, including the all-important questions of how far the South's economy dipped during this challenging period, and how quickly it will recover. Our expectation is that the latter will depend in large part on the characteristics that we are focused on here, since they point to the available stores of human and social capital that facilitate an easy recovery, in addition to the relative pull and push factors that lead to movement between districts.

Background on developments in the South

Before heading into the heart of the report, we summarize some core public investments made in the South over the last couple of decades. We cannot directly link any of the changes that we document in later empirical chapters to any of these investments. But the latter make it easier to interpret some of the empirical trends. More general, the quality and quantity of investments in the South points to the general Weltanshauung that has shaped policy makers' orientation toward the region since the early days of the state, especially the way that they see its relative advantages and disadvantages.

Broadly, the Israeli government has invested substantial amounts in the Negev — and the South in general — over the last few decades. These build on a long series of development plans that go back to the early years of the state. Here we focus on some key decisions and investments made since 2000, and on plans for expansion or upgrades on three main pathways: military relocation; transport infrastructure; and higher education.

Decision 4415 made in 2005 — the national strategic plan for the development of the Negev — can be used to set the stage. It specified four goals to be reached by 2015: increasing the Negev's population to 900 thousand (a 70% increase relative to 2003); increasing the number of employed to 168 thousand (an increase of around 80% over 2003 numbers); reducing the wage gap between the Negev and the rest of Israel from 10.7% to 4.2%; and increasing rates of higher education among the region's young.

Many of these goals, as we show empirically in the following chapters, have been at least partly achieved. More generally, the Negev regional council, acting in collaboration with the Citizen's Empowerment Center, has monitored the implementation of the government's plans for the Negev. They find that around 52% of the government's decisions have been fully implemented, 35% have been partly implemented, and 17% have not been implemented at all.

Military relocation

One key instrument that the government has employed to accelerate long-term development in the South has involved moving important army bases to the region. As enshrined in government Decision 3161 in 2011 this is supposed to encourage the movement of high-skilled individuals and their families to the South. It also requires building new, and upgrading existing, infrastructure that, in combination with those highly skilled individuals, will have a multiplier effect on the South's development in general.[4]

Four new and large military centers have either been completed or are still being built: The "City of Training Bases" (*Ir ha'bahadim*) is already functioning and sits close to Yeroham; the information and communications technology corps is now housed close to the hi-tech park by Ben Gurion University; Air force base 27 is now stationed in Nevatim (to the southeast of Be'er Sheva), which is also the recently announced site (August 2020) of Israel's new international airport; and contractors are now being sought to build a new base that, by 2026, will centralize various arms of the army's intelligence corps.

In 2013, in the wake of this plan to move major military bases southwards, and the recommendations of an inter-ministry team charged with development in the Negev in particular, Decision 546 was taken. It updated the national program for the development of the Negev and established a five-year plan that was to focus on towns or settlements that were judged to have high development potential for two reasons: their proximity to existing or planned large military bases; and their low scores on the government's socioeconomic ranking at the time these decisions were taken.[5] These target areas, it was

4 On the national level, these movements have an added bonus of freeing up high priced real estate in the center of the country.

5 Like other national statistical agencies around the world, Israel's Central Bureau of Statistics constructs a single score for each town, city and council in the country. This is a composite of income, wealth, education, employment and other demographic characteristics. For specific information see CBS, refer to CBS, 2019.

asserted, could most profit from the location of the military bases. They included Ofakim, Dimona, Yeroham, Arad, Be'er Sheva, and the Merhavim regional council. An update was made to the plan in 2014, immediately after Operation Tzuk Eitan, called 2025: A Multi-year Plan for the Development of the South. It added Netivot to the original list.

More targeted development plans have also been made covering parts of the Negev that were largely excluded from the military-centered development. An example was A Multi-Year Strategic Plan for the Development of Sderot and the Settlements around Gaza, announced in 2017.

Transport

Another key type of public investment in the South has been in transport infrastructure, both those connecting the center to the south and the local transportation infrastructure within the region.

The train system and network has expanded dramatically. In 2005, the Be'er Sheva-Dimona railway line was opened to passengers. Later, the train station in Lehavim-Rahat and the train station in northern Be'er Sheva were opened, near Ben-Gurion University, and the high-speed line from Be'er Sheva to Tel Aviv was launched. In 2015, the Ashkelon-Be'er-Sheva railway was opened, connecting the western Negev to Be'er Sheva. Finally, there has been a resurgence of talk about extending both a freight and passenger rail line from Be'er Sheva to Eilat — a "resurgence" because such plans were first announced in the government's 1959 five-year plan for Negev development, and have arisen periodically ever since.[6]

Road infrastructure also underwent improvement in those years. Road 6 has been continuously extended southwards. More sections of major roads 40 and 31 have also been widened.

The region's flight connections are also improving. In 2019, Ramon Airport near Eilat was inaugurated for domestic and international flights. This replaced the old Eilat airport, which lay in the heart of the city, not only controlling a large area of prime real estate, but also making it much more difficult to move across the city. These newly available areas will allow for new high-rise construction in the heart of Eilat, within walking distance of the major hotel and commercial areas.

6 The economic fallout from COVID-19 provides good cover for reneging on this promise, judged to be economically foolhardy in virtually all scenarios.

More recently, in August 2020, Miri Regev, the Minister of Transport, announced that a new major international airport will be built in Nevatim in the Negev, to the east of Be'er Sheva. This will complement Ben-Gurion International Airport, which is reaching maximum capacity and has limited options for expansion.

Higher education

Investments have also been made in the South's higher education infrastructure. As of 2000, the only general institute of higher education in the South was Ben-Gurion University of the Negev (BGU), established in the 1960s. Where other institutions existed, they were either very new, very small, had a very limited number of study options, or were all three of these together. That situation has changed over the last 20 years. There are now four other public colleges in the South. Sapir College, close to Sderot, became an independent BA granting institution in 1998, but with a very limited number of study options — those have now broadened considerably and it now has around 4,400 students. The same is true of other public colleges in the district: Ashkelon College, which began as a junior college for Bar Ilan, and finally became independent in 2006; Ahva College in the Be'er Tuvia area (in the very north of Southern District), which began under the sponsorship of BGU and became an independent BA granting institute in 2009; and Sami Shimon Engineering School, where teaching began in 1995, but a first (Be'er Sheva) campus was dedicated only in 2001.[7] All of these have between 1,900 and 4,100 students.

This expansion in the South is part of a national expansion of the higher education system that accelerated in the 1990s. The result has been that between the academic year 1999–2000 and 2018–2019, the number of undergraduate students in Israel increased by 50.4%.

Yet on at least a few measures the South appears to have disproportionately benefited from this expansion: the number of undergraduate students in the South has grown in the same period by 57.8%. Public funding for higher education in the South has also increased. In the 2007–2008 academic year, the Committee for Planning and Budgeting,[8] the body charged with

7 Aside from these degree-granting institutions, there are also professional schools of various types: the Be'er Sheva Technological College, established in the 1954 to provide technical training, and two teachers' colleges.

8 Commonly referred to by the acronym VaTaT, this is a committee of the Council for Higher Education, the MaLaG).

distributing public money to the universities, gave NIS 784 million to BGU and the academic colleges in the South. In the 2019–2020 academic year, it gave the same colleges NIS 1.370 billion, a 75% increase (measured in current prices).

BGU in particular has benefited. In 2016, it received a record-setting (for Israel) $400 million donation from the Marcus Family. It has been the fastest growing university over most the last two decades and looks likely to continue expanding. It is a partner in the creation of an "Advanced Technologies Park" next to the University, and with the creation of new North Campus will almost double in physical size. And unlike most of the other colleges in the South, BGU is a research university than can anchor a range of higher-end technological innovations.

2. Demographic change

This chapter charts the changes in population in the South, both in terms of overall size, differential growth by age, migration, fertility, and settlement patterns.

The main point we draw attention to is that although the South has experienced rapid growth, it is not equal across all subpopulations; nor is it equal across all ages or types of settlement. Understanding these differences is important. It also sets the stage for individual-level analyses, the focus of the following chapters.

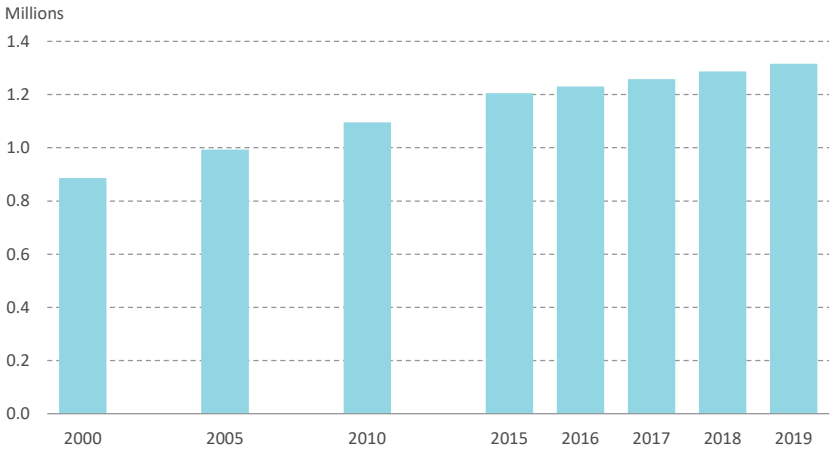
Overall patterns of growth

As shown in Figure 2.1, the population of Southern District has grown significantly over the last 20 years. from 890,000 in 2000 to 994,000 in 2005, and up to 1.32 million by 2019. In the 2005–2015 period as a whole, the growth rate was around 1.9% per year, shown in Figure 2.2. This was — and remains — around the national average (the blue line).

Since 2015, the district's population has grown by between 25,000–29,000 per year, reflecting a 2.2–2.3% rate of growth per year. That is a higher growth rate than the national average. It implies a population doubling-time of around 31 years.[9]

9 Relative to demographic patterns in other developed countries, these are very high growth rates, even exceeding fast growth areas in the US. Over the 2000–2019 period, for example, the annualized growth rates in California and New York state were 0.8 and 0.3%, respectively. And in rapidly growing Texas and Florida — where growth is primarily driven by high levels of in-migration — annualized growth rates were around 1.8%.

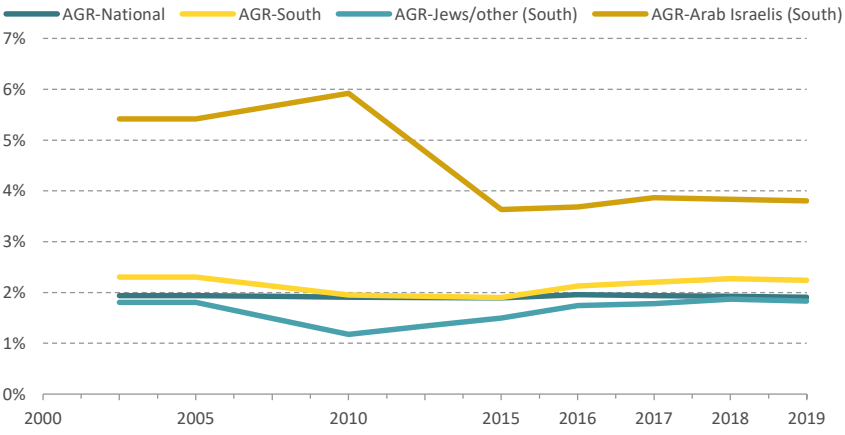
Figure 2.1. Population in the Southern District, 2000–2019



Source: Alex Weinreb, Taub Center | Data: CBS

Figure 2.2 also shows that growth patterns have not been equal in all subpopulations or "sectors". It shows that there are very significant differences in growth rates between Arabs and Jews/others. The most extreme differences were in the 2005–2010 period: whereas the Arab population grew by around 5.9% per year — an astonishing rate that implies a population doubling-time of less than 12 years — the Jewish population grew by 1.17% per year, much less than the national average. Between 2010–2015, the difference in growth rates between these two subpopulations shrank — increased for Jews/other and fell for Arabs — but substantial differences remain. Since 2016, annual growth rates have been around 1.8% per year in the Jewish/other sector and 3.8% in the Arab sector.

Figure 2.2. Annualized population growth rates (AGR) in Southern District, 2000–2019, by sector



Source: Alex Weinreb, Taub Center | Data: CBS

Distinguishing Jews from Other is also instructive. This is an increasingly important minority population in the South. As of December 2019, it accounted for 6.6% of the total population in the South (8.4% of the non-Muslim population). This was up from 2.3% and 2.6%, respectively, in the 1995 Census. This was also the highest of any district in Israel. Nationally, 4.5% of Israeli residents were religiously unclassified in 2019, ranging from a low of 1.3% in Jerusalem District to the 6.6% in the South, followed by 6.3% in Haifa District.

The final distinction that we make is within the Jewish population: distinguishing the Haredi from the non-Haredi population. As is widely known, and we show in Chapter 4, the Haredi population as a whole has distinct educational and labor market characteristics that pose a particular challenge to economic development. That being said, it is also important to distinguish different types of Haredim. This is especially the case in the South, since the region has no dedicated Haredi cities similar to Bnei Brak, Modi'in Illit, Beitar Illit or El'ad, nor any mixed cities that have become largely Haredi, along the lines of Bet Shemesh or Tzfat — Netivot, almost 50% Haredi, is approaching this. Instead, Haredim in the South live in mixed cities, though often in distinct neighborhoods.

Overall, Haredim account for around 10% of the South's population, and about 14% of its urban population. It is difficult to estimate how much this has changed over the last couple of decades since representative surveys with data on religiosity have only been collected regularly since 2014. But even accounting for the relatively longstanding islands of Litvak-centered Haredi life around *yeshivot* in Netivot (Yeshivat Hanegev) and Ofakim (Yeshivat Ofakim) — there is clear evidence that numbers are growing, especially among Hasidim. This is reflected in Table 2.1. Alongside the Sephardi Haredi population, which accounts for about 44% of the Haredi population in the region as a whole, and is the dominant Haredi stream in most southern towns and cities — e.g., Netivot, Be'er Sheva, Ashkelon, Dimona, and Sderot — there are now major concentrations of Hasidim in Ashdod in particular, but also in Kiryat Gat and Arad.

Table 2.1. Haredi population in the Southern District, by city and stream

City	Total population	Haredi population	Type of Haredi (%)				
			Litvak	Hasidic	Sephardi	Litvak-educated Sephardi	Chabad
Ashdod	222,883	52,963	7.9	63.0	22.9	5.7	0.5
Netivot	33,779	14,738	16.3	5.5	60.2	15.1	3.0
Kiryat Gat	53,487	9,875	3.7	62.5	22.1	3.2	8.6
Ofakim	27,771	9,329	43.0	6.1	38.3	10.6	2.0
Be'er Sheva	207,551	9,332	5.9	6.2	72.3	6.0	9.6
Ashkelon	137,945	8,363	6.6	4.3	69.7	6.6	12.8
Arad	25,530	6,788	0.8	95.5	1.6	0.1	2.0
Kiryat Malachi	22,337	4,401	8.5	5.9	36.7	2.3	46.6
Dimona	33,666	1,709	4.1	5.9	80.4	6.5	3.1
Eilat	50,724	1,407	11.6	12.0	65.7	3.6	7.0
Sderot	25,138	1,529	6.5	2.4	83.6	4.7	2.8
Yeruham	9,511	1,327	21.0	9.0	54.4	14.3	1.2
Total South	850,322	121,761	10.8	40.3	37.2	6.7	5.0

Note: These data represent the most accurate breakdown by type of Haredi currently available. They are estimated using 2017 data.
Source: Alex Weinreb, Taub Center | Data: Regev and Gordon, 2020

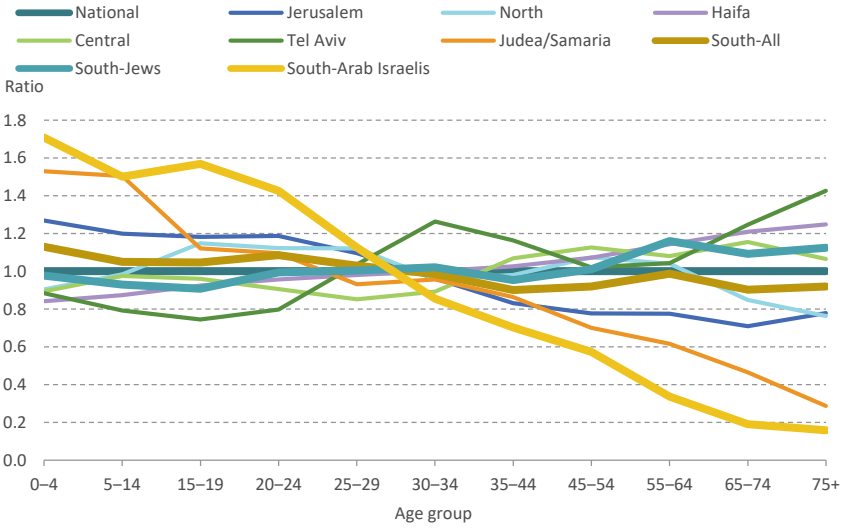
These distinctions between Haredi streams are important, since each of these groups has a somewhat different attitude to education and the labor market, all of which affect concentrations of poverty. The relatively low cost of housing in some areas of the South — which we detail in Chapter 3 — is an acknowledged motive for this move into places like Arad (Amit, 2014), and more recently has begun to trigger NIMBY ("Not-in-my-back-yard")-type calls from a number of observers out of concern that any further increase in the percentage of Haredim in the South will exacerbate the socioeconomic challenges facing the region (Arlosoroff, 2020).

a. Age structure

Relative to the national age structure, by which we refer to the percentage of the population in each age group, Southern District has a relatively young population. This means that, as shown in Figure 2.3, it has proportionately more people aged less than 20 and proportionately fewer aged 35+, with the exception of 55–64-year-olds.

Yet as implied by the differential growth rates in Figure 2.2, the South's overall age profile is an average of two very different age structures. The South's Jewish population has a very similar age structure to that of the national population at most ages, dropping a little below the national average in the teens and then rising above it — there are disproportionately more old people — over age 55. In contrast, the South's Arab population is very young. Relative to other age groups, there are 70% more children in the 0–4 age group and more than 50% more teens. This Jewish-Arab difference has — and will continue to have — profound effects on a range of socioeconomic indicators in the South.

Figure 2.3. Share of a district's population that is age x relative to the national proportion, by district and sector (Southern District only), 2019



Source: Alex Weinreb, Taub Center | Data: CBS

b. Growth by age

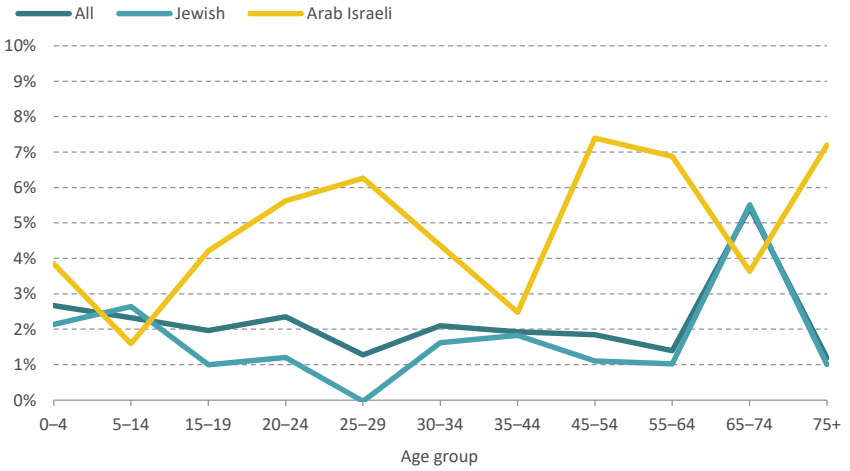
We can get more perspective on these differences in age structure, and hence on the timing of the coming impact, by looking at age-specific growth rates, within the constraints imposed by the categories that the CBS uses: 5-year groups in some age ranges, and 10-year groups in others.

Figure 2.4 presents the annualized growth rates in the 2015–2019 period relative to the preceding 2010–2015 period (that is, what rate accounted for the increased number of people of a given age between these two periods). The overall trend — the yellow line — falls from birth, where it was 2.7%, with similar levels for Jews and Arabs, to around 1.4% among people in the 55–64 age group.

Between these two points on the age distribution there are major differences in growth rates between Jews and Arabs in certain age groups. The first of these extends from late teens into the early 30s. Among southern district Arabs in their late teens, the population increased by 4.2% per year. Among those in their 20s it increased by 5.6% per year (ages 20–24) and 6.3%

(ages 25–29). The equivalent rates for Jews were much lower: respectively, 1.0%, 1.2%, and -0.03%. Another major difference in Jewish:Arab growth rates can be seen between ages 45–64. Here, growth rates in the Arab sector were more than 7% per year, relative to around 1.2% in the Jewish/other sector.

Figure 2.4. Annual growth rate relative to the prior 5-year period, by age



Source: Alex Weinreb, Taub Center | Data: CBS

These differences are extremely important. On the one hand, they suggest that the wave of young Arabs in the South reaching their late teens, and therefore needing to enter either higher education or the labor market, is continuing to grow at a very rapid pace. In the medium term, this will also accelerate urban expansion in Arab towns, movement to larger mixed cities, and more general political and economic influence. These very high growth rates point to some in-migration into the Arab sector in their 20s — since it is historically unprecedented to achieve this level of growth from natural increase alone (i.e., births minus deaths). On the other hand, we see similar rates of growth in the 45–64 age group, which is already past that peak migration ages. That cannot but raise questions about the quality of the underlying data.[10]

10 The increase of population could be the product of significant fluctuations in the age structure. Other potential causes are improved registration of this population and reduced age-misreporting.

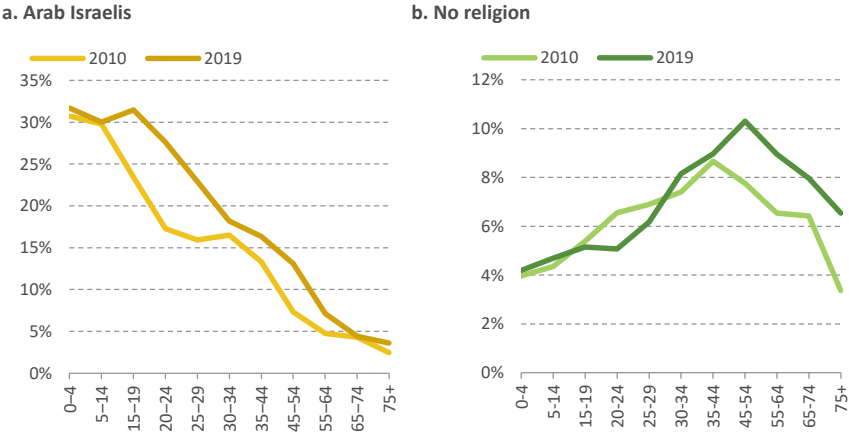
A quite different finding points to a significant wave of young elders in this population, with the number of 65–74-year-olds increasing by around 5.5% per year in this period. There are only minimal differences in the growth rates of Jews and Arabs at these ages (from 75+, there is again considerable excess growth in the Arab population). It suggests that over the next two decades, the population heading into the late 70s and 80s is going to expand quite notably in both sectors, though growth will be greater — in proportionate terms—in the Arab population.

This very low growth rate among Jewish young adults in the South is the product of one, and possibly two, things. First, in Israel as a whole in 2019 there were slightly fewer Jews in their early-20s (468,200) than in their early-30s (474,900), and about as many in their late-20s as late-30s — this is a peculiarity of Israel's age structure that is related to prior large-scale shifts in migration in the post-War period and early 1990s, and in "echo" effects of fertility (described in the Taub Center's population projections — Weinreb 2020). Given that age structure, the low but positive growth in the South's Jewish population in this period actually suggests that there has been a moderate level of net positive in-migration to the South. We confirm this in our migration estimates, presented shortly.

Finally, alongside these sharp differences in prior patterns, there are also signs of change in the relative pace of growth across the two major sectors. We see two signs of this in Figure 2.5, which graphs the age-specific percent of southern district's population that is either Arab (panel a) or neither Arab nor Jewish (panel b).

In Southern District's Arab population (panel a), we see very significant increases between 2010 and 2019, especially in teens and 20s. In 2010, 17.3% of all 20–24-year-olds were Arab. By 2019, it was 27.6%. But equally important, the line flattens out at the youngest ages, even though the number of Jewish women entering their peak fertility ages of late 20s and early 30s has remained relatively flat. Barring an unforeseen increase in fertility rates, or a substantial increase in the ratio of Arab to Jewish women entering their peak reproductive ages — neither of these is likely, as we show below — this suggests that the share of children in Southern District that are Arab will remain at around a third of all children in the South over the next 10 years or so.

Figure 2.5. Percent of Southern District's population, 2010 and 2019, by age



Source: Alex Weinreb, Taub Center | Data: CBS

Among those categorized as having "no religion" (2.5b) — this largely overlaps with "Others" — we see a completely different pattern. The falling percentage of teens and young adults, and increases at ages 45 and up, all reflects the aging of immigrants from the former-USSR. The smaller percent among younger cohorts is a function of a number of things: lower fertility in the sector; adults in this sector having children that are categorized as Jews; and the much larger younger cohorts in general.

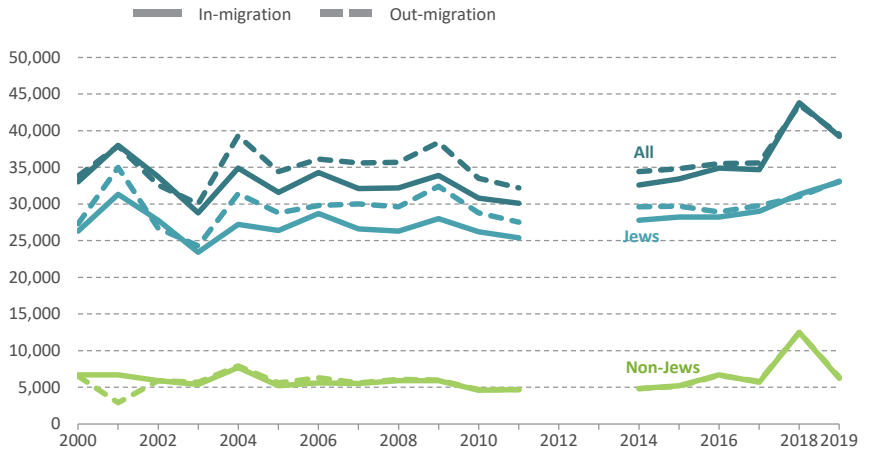
c. Internal migration

Southern region figures prominently in Israeli patterns of internal migration. Over the 2000–2019 period, an average of 30,600 Israelis moved to the South each year. That is considerably more than moved to the North (26,300), Haifa (25,300), Jerusalem (16,400), or Judea/Samaria (14,700). Only Central Region and Tel Aviv received more in-migrants.

On the other hand, an average of 32,100 people also left the South each year across that 20-year period, so without accounting for international migrants to the South — see next subsection — there was a net loss of people in the South.

Figure 2.6 disaggregates these trends across time and by subpopulation. We highlight two specific phenomena.

Figure 2.6. The number of in- and out-migrants in Southern District, 2000–2019, by subpopulation



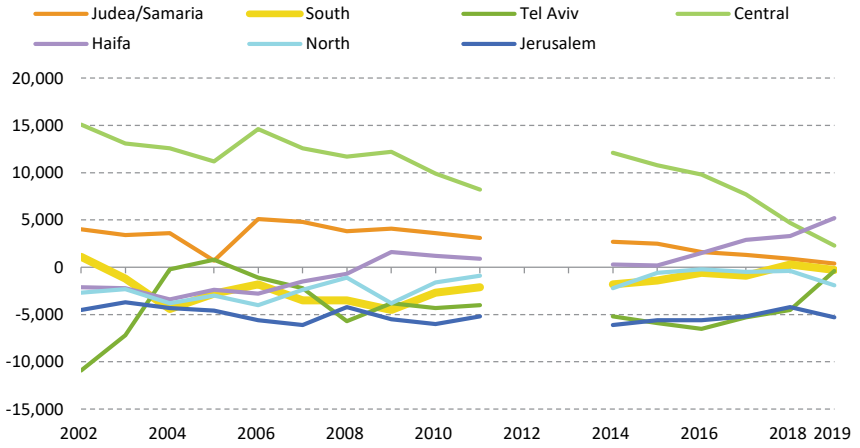
Source: Alex Weinreb, Taub Center | Data: CBS

First, between 2004–2010, the South lost about 3,000 people per year to net out-migration: this was the net difference between the number of incoming and outgoing migrants. Since then, that net loss has been shrinking. It dipped below 1,000 individuals in 2016. The South even experienced a small gain of 300 people from internal migration in 2018 — the first net positive result since 2002 — before experiencing another small loss of 300 people in 2019. All in all, this means that the overall patterns of internal migration to and from the South that predominated for most of the early years of this century have changed. More people are now moving to the South than ever before — almost 40,000 in 2019. And the ratio of in- to out-migrants has moved much closer to 1.

Second, this convergence in the number of in- and out-migrants is driven almost wholly by fluctuations in the Jewish sector. Since 2011 there has been a year-on-year increase in the number of Jewish in-migrants to the South, rising from 25,400 in 2011 to 33,000 in 2019. At the same time, the number of non-Jewish migrants has also increased: from 4,700 to 6,200.

Figure 2.7 shows us how this compares to net internal migration patterns in other areas of Israel. Over the last 15 years, overall trends in net internal migration have been converging to zero in most districts. Across this period, trends in Southern District have most closely tracked those of Northern District. For the last 10 years or so, trends in these two districts have also paralleled the positive trends in Haifa District, where net migration steadily increased from -4,800 in 2000 to around +5,200 in 2019, replacing Central District as the most favored net destination. All of these movements toward positive net migration are in sharp contrast to trends in the other relatively poor district, Jerusalem, where net internal migration has been relatively stable at around -5,000 individuals per year over the last 20 years.[11]

Figure 2.7. Net migration by district, 2000–2019



Source: Alex Weinreb, Taub Center | Data: CBS

d. International migration

International migration has also contributed to the South's population increase over the last 20 years. In part, this reflects an upward trend in immigration to Israel in general since the end of the large post-Soviet immigration in 2002.[12]

11 Tel Aviv is somewhat exceptional in this regard. In 2019, the net migration rate suddenly rose from around -5,000 to zero, having been negative since 2005. And Central District, which has seen its net positive migration rate shrink to around zero. Judea/Samaria is a special case, but even there, net in-migration has been moving closer to zero over the last 20 years.

12 We refer here to new immigrants ("*olim*"), not returning Israelis.

Dropping to around 13,000 in 2008, the lowest number of immigrants to Israel observed over the last three decades, by 2015 it had once again passed 25,000 and in 2019, 33,250, a level not seen since 2002. Latest data on 2020 suggest that it dropped to around 20,000 in this year of COVID-19 though larger waves are expected over the next few years.

Beginning in 2006 we have information on where in Israel these immigrants first settled, and on their country of origin. Over the 2006–2019 period, even though the proportion of these new immigrants that moved to the South fell, the absolute number at the beginning and end of the period remained relatively stable: around 22% of new immigrants moved to the South in 2006 and 2007. Since 2015, it has been below 17%. In 2019, it was only 13%, but the rise in the total number of immigrants to Israel as a whole meant that 4,335 new immigrants made their way to the South.

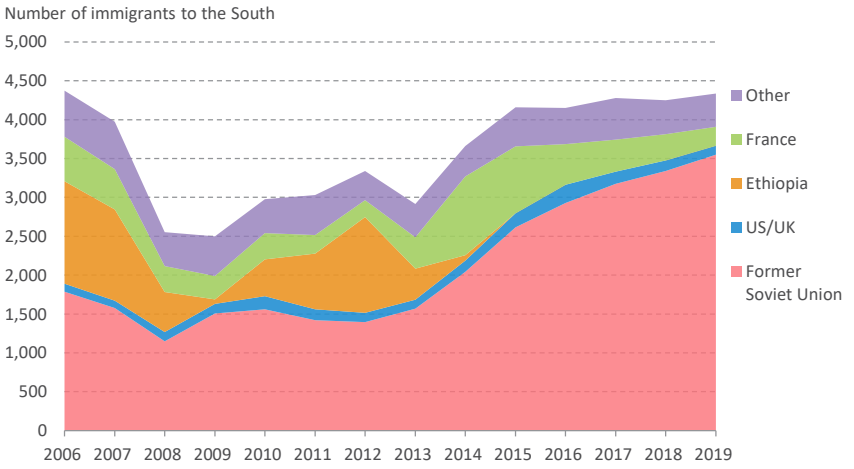
Across all years, the number of new immigrants heading to the South each year averaged around 3,600 people. What this means is that over the last 14 years, the South became home to around 50,500 new immigrants, which is equivalent to 5% of the total Jewish/other population of the South in 2019. Combined with the internal migration figures discussed above, this means that net migration to the South from all sources has been positive since at least 2010, and hovering around 4,000 per annum for the last few years.[13]

The national origin and composition of this annual immigrant population has changed over time. This is important to track because it hints at the human capital of these migrants.

Between 2006 and 2012, about 40–50% of the annual arrivals were from the former Soviet Union, including the Ukraine and Central Asian Republics. Since then, that percentage has grown, reflecting national migration trends. In 2019, 73% of all immigrants to Israel were from the former Soviet Union. These immigrants disproportionately settled in the North, Haifa, and the South. In 2019, 82% of the 4,335 new immigrants who settled in the South were from the former Soviet Union. Since 2006, the population of the South has been augmented by a total of 29,613 immigrants from the former Soviet Union, divided roughly equally divided between those moving to Ashkelon and Be'er-Sheva subdistricts.

13 An immigrant who initially lives in the South but subsequently moves to another district is included in the internal migration figures discussed above.

Figure 2.8. Trends in number and origin of migrants to the South



Source: Alex Weinreb, Taub Center | Data: CBS

In contrast to Russia and its former Soviet neighbors, the US and UK have never been a major source of immigration to the South. In 2019, these two countries accounted for 9.0% of all immigrants to Israel, but only 2.7% of immigrants to the South; in 2018 the respective percentages were 10.6 and 3.2.[14] Immigrants from France have been more likely to settle in the South — they accounted for 5.6% of all immigrants to the South in 2019, close to the 6.7% of immigrants to the country as a whole. Yet within the South, they also tend to favor the coastal areas. In any given year, three-quarters of French immigrants to the South settle in the Ashkelon District rather than Be'er Sheva District.

Finally, another notable source of immigration to the South over the last 20 years has been Ethiopia. Between 2006–2014 — starting in 2015, the CBS included immigrants from Ethiopia in the "Others" category — Ethiopians accounted for 11.8% of all new arrivals in the South. However, there was substantial year-to-year variation in this flow, with Ethiopians representing more than 30% of all new arrivals in the South in some years (2006, 2012) and less than 2.5% in others (2009, 2014).

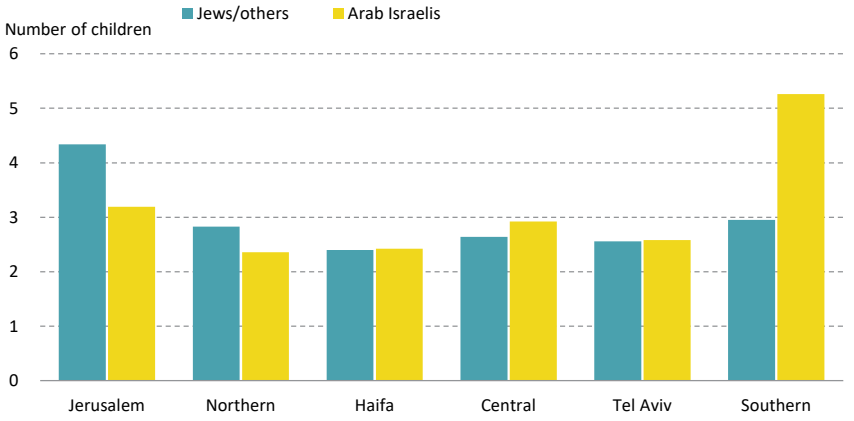
14 Around 40% of immigrants from the US and UK typically head to Jerusalem district, and another 30-40% to Judea/Samaria.

e. Fertility

At the national level, around 80% of Israel's demographic growth is driven by fertility, making fertility the main driver of demographic growth in Israel. In relation to fertility, too, the South is unique in Israel. As shown in Figure 2.9, the South is the only district in which the fertility of Israeli Arabs exceeds that of Jews/others by a significant margin. In 2019, the total fertility rate (TFR) of Jewish/other women in Southern District was 2.95 — it was 3.09 when restricted to Jews alone. Among Arab women in the South, the TFR was 5.26 children — 5.28 when restricted to Muslim women only.

In all other districts, in contrast, Arab women's TFR in 2019 was either identical to that of Jewish women in the same districts (Tel Aviv and Haifa Districts), marginally exceeded that of Jews (Central District), or was lower than that of Jews (by more than 1 child in Jerusalem and around 0.5 children in Northern District).

Figure 2.9 Total Fertility Rate (TFR) by sector and district, 2019



Source: Alex Weinreb, Taub Center | Data: CBS

In the South, these high fertility levels are actually much lower than they were. In the 1999–2001 period, the TFR in Southern district's Arab population exceeded 9 children per woman — relative to 3–4 children in all other Arab populations in Israel, and 2.6 children among Jews/others in the South. By 2010, Arab women's TFR in the South had dropped precipitously to 5.8 children per woman. Since then, it has fallen by an additional 0.5 children. At

the same time, the TFR in the Jewish/other population in the South increased: from around 2.6 in 2000, to 2.8 in 2010 and 3.0 in 2019.

These changes in fertility are ongoing. If Arab women's fertility in the South follows trends in Gulf States with large Arab populations — driven by a mix of economic and cultural factors — it will fall below 3 children in the next decade or so. In the meantime, however, barring migration out of the district — a historically unusual pattern in the South's Arab population — those very high levels of prior fertility point to steady increases in the number of people that will reach the labor and housing markets in the South over the next 10–20 years. That can be the basis for a significant demographic dividend in the South — assuming sufficient investment and opportunities are made available.

Residential trends

To chart where all these people are living, we distinguish residential sectors within urban and rural settlements. Note that we follow the CBS definition of urban and rural: the latter is a settlement with less than 2,000 individuals.

a. Urban settlement

Panel (a) in Figure 2.10 looks at the composition of the national urban population between 2010 and 2019 by size of settlement, ranging from 2,000–10,000 residents — below 2,000, *yishuvim* are categorized as "rural" — up to more than 500,000 residents. Panel (b) does the same thing, but limits attention to Southern District.

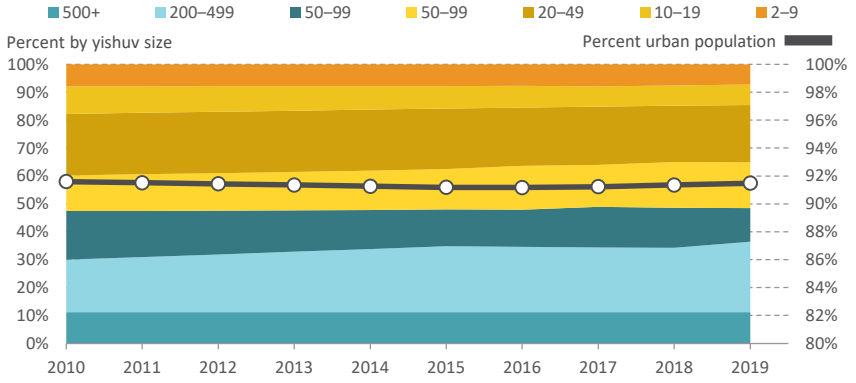
The most notable difference between the South and the national estimates is in the percent urban. Nationally, about 91.5% of the population is categorized as living in an urban settlement (i.e., more than 2,000 residents). This figure was relatively stable in the 2000–2019 period. In Southern District, the figure is much lower, and it fell somewhat during this period, from 86.7% in 2000 to 84.2% in 2019 (hitting a low of 83.8% in 2017). This decreasing trend means that alongside the rapid growth in population in the South, there has been some level of de-urbanization. That is an unusual combination, though the flattening of the trend since 2016 raises questions about whether it will be sustained.[15]

15 Much of Eastern and Southern Europe has been experiencing ongoing growth in cities as rural areas empty out. In a significant number of developed countries there is also some movement of people out of largest cities into suburban, peri-urban, or smaller cities. But I know of no other developed country in which growth in a rapidly growing regional population is disproportionately occurring outside urban areas.

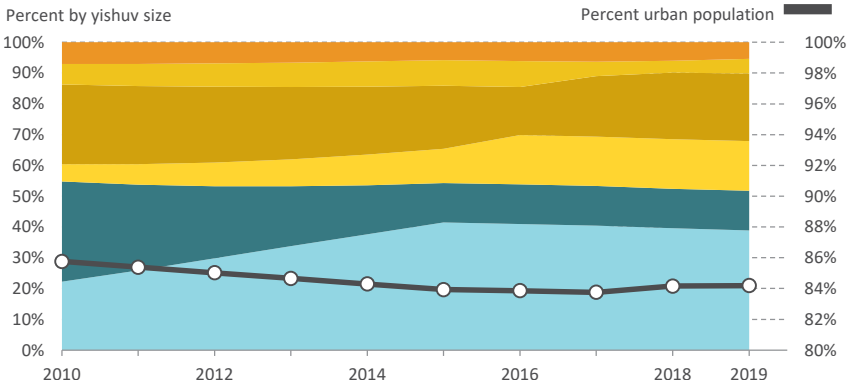
There are other signs of de-urbanization in the South. One is seen by comparing the net migration of people to the city of Be'er Sheva with net migration to the subdistrict of Be'er Sheva — as noted in the Introduction, this extends from the Gaza border to the Dead Sea and Arava, and from upper Negev to Eilat. Whereas net migration from the city has now fallen to around -11 per thousand — that is, for every 1,000 residents, the number of people moving to the city trailed the number who moved away from it by 11 — net migration to the subdistrict as a whole was only-1.1 in 2019, and it was positive in 2018.

Figure 2.10. Share of urban population by *yishuv* size, 2010–2019

a. National



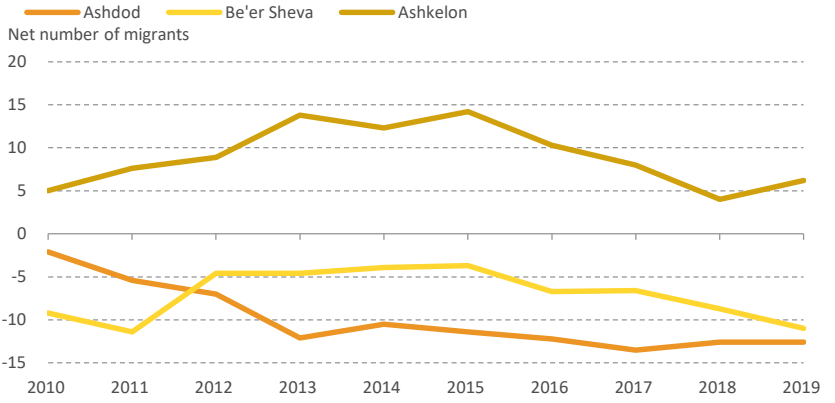
b. Southern District



Source: Alex Weinreb, Taub Center | Data: CBS

A second sign of de-urbanization can be seen in more detail in Figure 2.11, which looks at net migration rates across the three largest cities in Southern District from 2010–2019. The data confirm that even though the population of each of these cities has been growing relatively quickly — e.g., since 2000, from around 170,000 in Be'er Sheva, and 180,000 in Ashdod to around 225,000 in both today — only Ashkelon, with a current population of around 150,000, has consistently experienced positive net migration since 2010. In contrast, net migration rates have been negative for that whole 20-year period in Be'er Sheva, and for all but a few years in the 2000–2009 period in Ashdod (not shown in the graph). What this means is that in 2019, for every 1,000 residents in Be'er Sheva, 22 people moved to the city, and 33 left, yielding a net migration rate of -11 per 1,000 residents. In 2018 the numbers were 21 and 30, respectively, yielding a net migration rate of -9 per 1,000 residents. These are similar to the net migration rates experienced in Ashdod, which have not risen above negative 10 per 1000 residents since 2013.

Figure 2.11. Trends in net number of migrants — in-migrants minus out-migrants



Source: Alex Weinreb, Taub Center | Data: CBS

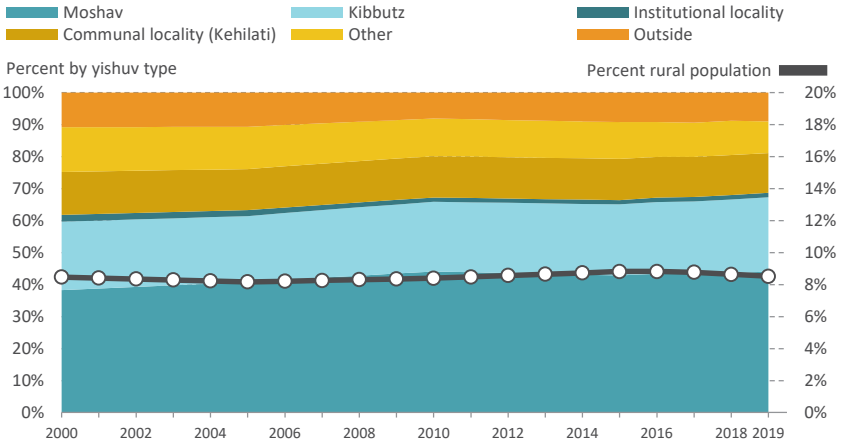
These trends are important. Negative migration rates alongside continued growth means that the source of demographic growth in these cities is either natural increase — people who stay — or international migrants. We summarized trends in the latter at the macro level earlier in this chapter. We identify the characteristics of these "stayers" in Chapter 3.

b. Rural settlement

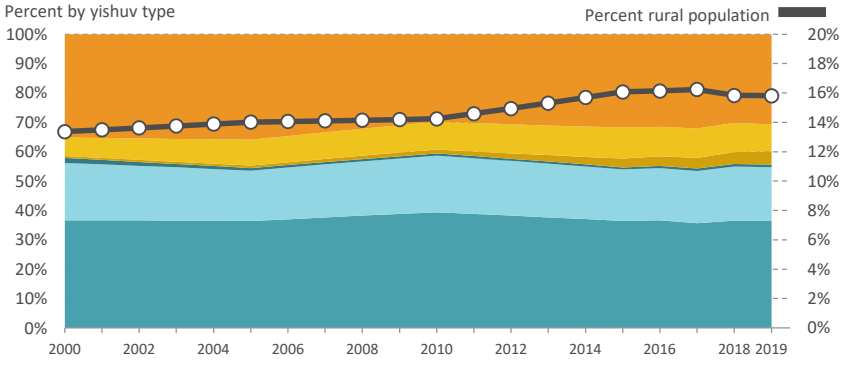
There are also some differences in characteristics in the rural population, seen in Figure 2.12. As in Figure 2.10, panel (a) looks at the composition of the national population, and panel (b) focuses on Southern region only. We draw attention to three points.

Figure 2.12. Share of rural population by *yishuv* type, 2000–2019

a. National



b. Southern District



Source: Alex Weinreb, Taub Center | Data: CBS

First, the share of the rural population living in *moshavim* and *kibbutzim* in the South is quite similar to the national average. It is also quite stable across time. That is significant because it means that the absolute numbers are tracking (a) the growth in Southern region in general, and (b) the growing share of the population that is living in a rural area (black line measured against the right-hand axis). In other words, demographic growth in *moshavim* and *kibbutzim* in the South is not lagging behind that of other types of non-urban settlement, in spite of the low growth rates in the Jewish population relative to those of the Arab minority. This makes sense given other data pointing to national-level growth rates in settlements in the area around Gaza ("Otef Aza").

Second, the most notable differences between the South and the national averages can be seen in the percentage of people living outside recognized municipal boundaries altogether. In the South, 35% of rural residents fell in this category in 2000 and this fell to 31% in 2019. At the national level, the percentage fell from 10.8 to 9.0% of rural residents. This is important because it means that the rapid growth in the South's population, which as noted above is disproportionately driven by the Arab sector — who do not fall in the large *moshavim* and *kibbutzim* categories — has not occurred in these *yishuvim*, which presumably include those that are "unrecognized." That growth must therefore be occurring in recognized towns and cities.[16]

Finally, in 2000, one of the biggest differences between the South and other regions was in the percentage of population living in "community settlements".[17] They accounted for around 13% of rural residents nationally, but only 0.6% in the South. Over the last 20 years that has begun to change. Around 4.5% of the growing rural population in the South now lives in a community settlement.

16 "Others" here refers to "Other rural localities," a catch-all CBS category that includes all recognized rural clusters that do not fall into one of the other categories.

17 A "community settlement" (*yishuv kehilati*) is a type of settlement that places emphasis on a shared outlook of its residents but makes no demands regarding shared ownership of resources or economic functions. To become a resident, every applicant needs the consent of a "reception committee" (*va'ad kabala*).

Summary

We have a shown a number of things in this chapter:

- The South has experience growth over the last 20 years, though this has largely been driven by growth in the Arab sector, and especially among people currently in their teens and 20s. After many years of net negative migration out of the South, migration has become positive over the last few years.
- The South is populated not only by Jews and Muslims, but also by a substantial minority of "Others" who do not fall neatly into one of the two major religious groupings. The South has the highest percentage of "Others" of any district in the country.
- Arab fertility levels in the South have fallen sharply over the last 20 years, but they remain much higher than that of Jews and Others.
- The South has a much higher percentage of people living outside urban areas (using the CBS definition of 2,000 residents), and that percentage has increased over the last 20 years, which means that rural populations have grown even faster than their urban counterparts.

All these factors mean than in terms of demographic structure, the South is poised for rapid growth if its large young population stays in the region. However, to be able to ride this demographic wave productively, certain conditions need to be met. What other qualities or characteristics do they have, especially in terms of education? Do they work and, if so, in what type of employment? Finally, who leaves, who stays, and who comes? It is to these questions that we now turn.

3. Household structure, movement, and real estate trends

Household size and structure

Israel's growing population, documented in Chapter 2, is reflected in the growing number of households: rising 53% from 1.75 million in 2000 to 2.67 million in 2019. Somewhat surprisingly, household size has remained quite stable over the last 10 years: nationally it increased by only 1% between 2009 and 2019. This relative stability is the product of two countervailing forces. On one hand, higher fertility has increased household size. On the other hand, both population aging and delayed fertility — women's age at first birth has been rising across all sectors — have reduced average household size.

In the South, average household size has also remained quite stable over the last decade, though there it has fallen by about 1%: this is consistent with other trends documented in the last chapter, including rapidly falling fertility in the Arab sector and high growth rates at older ages.

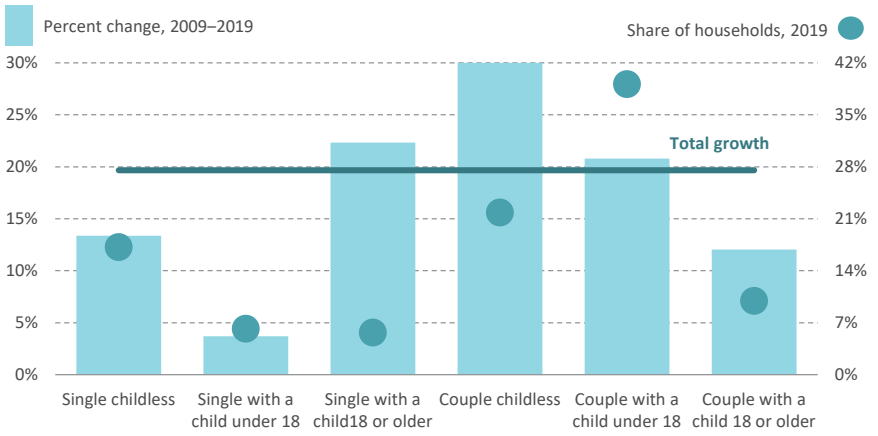
Beneath this relatively stable average, however, lurks considerable variability in the speed with which different types of households in the South have grown. This is shown in Figure 3.1.

Between 2009 and 2019, the number of households in Southern District in general increased by 20% — indexed by the horizontal gray line. The modal type of household in the South, a couple with at least one child under age 18, and comprising 39% of households in 2019, increased by a little more than this amount.

The second largest group of households in the South — comprising 22% of all households in 2019 — are couples with no co-resident children. This group experienced the largest increase of any household type, growing by 30% over the 2009–2019 period. At the other end of the distribution, the number of households with a single adult and at least one child under age 18 — comprising about 6% of all households — increased by only 3.7%.

The overall picture that emerges from Figure 3.1 points to a reduction in the percent of households with co-resident adult children, and a slight increase in the number of childless households — these now account for about 40% of all households. Some of the latter are couples yet to have children. But most are older couples whose children have moved out, which is consistent with the growth rates in the older population documented in the last chapter.

Figure 3.1. Percent change in number of households in Southern District, 2009–2019, by type



Source: Alex Weinreb, Taub Center | Data: CBS

A final point: With the exception of single adult households, both with and without a child under 18, there are no strong indicators of differential migration by type of household in this table. The question is, are there other predictors of movement to or from the South, or of the decision to stick around? For example, how do migration patterns vary by individual's own educational characteristics, or those of their parents? How satisfied are the South's residents with their general living and social conditions or with their economic situation? And how much do real estate trends reflect these transitions? We provide answers to each of these questions.

Who moves and who stays

To generate a more specific picture of who has recently selected to move to, move from, or stay in, Southern District, we use data from the 2018 wave of Israel Social Survey (ISS). The ISS is a nationally representative repeated cross-sectional survey (i.e., a new sample every wave) fielded every year by the Central Bureau of Statistics. In addition to a standard battery of questions asked every year, each wave also includes a special set of questions that change from year to year. Fortuitously, given the goals of this project, the special set

of questions in 2018 focused on movement from one location to another, including from one district to another.

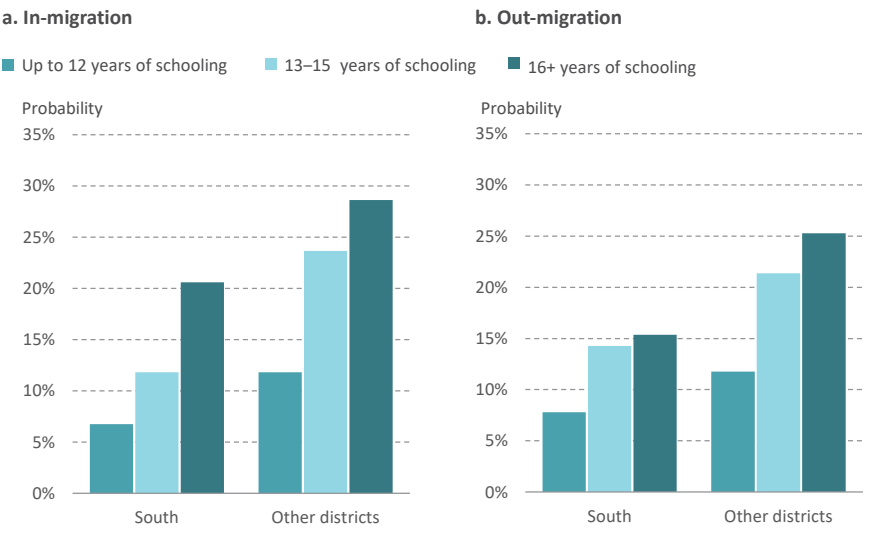
Of the 7,488 adult respondents in ISS 2018, 1,101 had moved in the last five years. In Southern District, the numbers were lower. Of the 915 Southern District respondents, 42 had moved from within Israel over the previous five years, alongside another 13 who had moved from overseas. In addition, of the 921 adults in the sample who had lived in Southern District five years beforehand, 61 had moved out of the district.

The first question we ask has two parts: what are the relative characteristics of these 42 Israeli in-migrants relative to longer-term residents of the South? And what are the relative characteristics of the 61 Israeli out-migrants relative to those that did not move out of the South, or relative to those who moved out of other districts?

We answer these questions in a small series of logit (regression) models. Given the relatively small sample size and some other data limitations, our goal is more descriptive than causal. That is, we cannot identify with sufficient confidence the reasons they chose to move, but we can describe some of the core characteristics of these migrants. While adjusting for the standard effects on migration of age (including a "quadratic" term to look at whether the influence increases or decreases with age) and ethnicity, we focus in particular on two educational measures: the respondent's own education, and their parents' education. Where these appear simultaneously in the same model, the first is a measure of the person's own human capital, while parent's education is more of an indicator of family stores of capital including wealth (since more educated parents' income was on average higher than that of less educated parents, and they tended to have fewer children).

Full regression tables are available upon request. Here we summarize some key points. First, overall levels of in- and out-migration to and from Southern District are somewhat lower than in Israel as a whole. Second, and more importantly, the education profile of migrants to and from the South is different from that of migrants to/from other districts. We graph these in Figures 3.2 and 3.3. The former presents the predicted probabilities of migration among 20–39-year-olds by a person's own level of education after adjusting for differences in age and ethnicity and parents' education. Here we see the same basic pattern in the South as elsewhere. Education is positively associated with the probability of migration, though at lower levels in the South, and with diminishing effects on out-migration.

Figure 3.2. Five-year probability of a 20–39-year-old migrating into or out of Southern District, or other districts in Israel, by the respondent's own education, adjusted for age, ethnicity, and parent's education

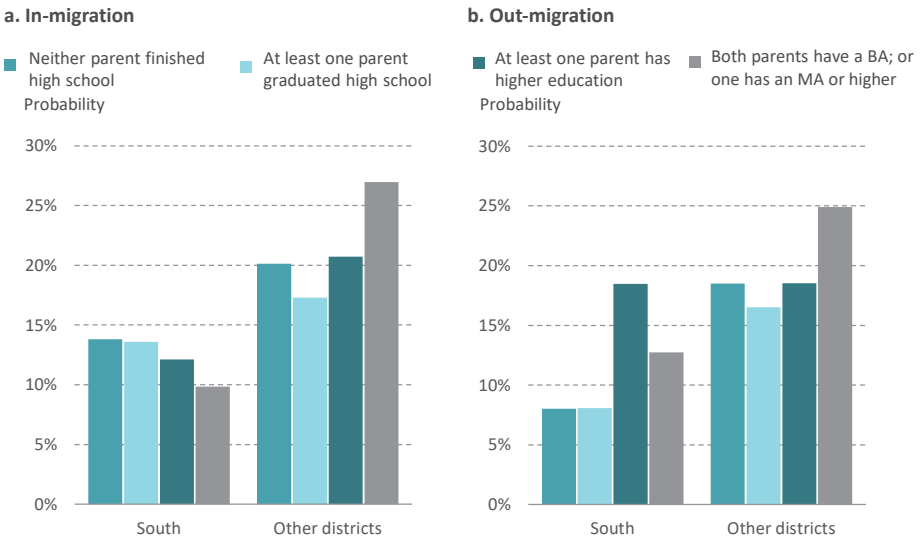


Source: Alex Weinreb, Taub Center | Data: CBS, The Social Survey

The more interesting and important differences can be seen in Figure 3.3, which presents the same predicted probability of migration but now by parent's education. Outside Southern District, a person aged 20–39 with the most educated parents — either both have a BA or at least one has a higher degree — had about a 25% probability of moving from one district to another in the 2013–2018 period. A person with the same characteristics had only a 10% chance of moving to the South, and a 13% chance of moving out of the South. In fact, the probability of in-migration to the South is higher for people with less educated parents.[18]

18 Identical models run on Northern District do not find an equivalent effect. This seems to be particular to Southern District's migration profile.

Figure 3.3. Five-year probability of a 20–39-year-old migrating into or out of Southern District, or other districts in Israel, by the parent's education, adjusted for age, ethnicity, and own education



Source: Alex Weinreb, Taub Center | Data: CBS, The Social Survey

This difference between the South and other districts tells us two things. First, the main distinction between in-migrants to the South and in-migrants to other districts is not the in-migrants' own education. It is the education of their parents. Given that the model already includes — and therefore adjusts for — these individuals' own educational levels, we think that it is primarily a predictor of how much financial capital they have at their disposal (given the lifetime wage returns to their parents' education).[19]

19 Other results in the model confirm there is a strong age effect — 67% of the migrants out of the South, and 76% of the migrants to the South, are below age 40, though these age groups only constitute 40% of the sample. Second, Arab respondents in the national are significantly less likely to have migrated between districts than Jews. This difference is not statistically significant in the South after controlling for education, but that could also be an artifact of small sample size (at Type-II error), so we do not make too much of that difference here.

Second, the lower levels of migration to and from the South point to a certain "stickiness." People may be less willing to move there than to most other districts. But the probability of leaving is also lower. Whether these differences stem from actual willingness to move or from the ability (e.g., financial) to move is unknown and, with the data currently available, unknowable.[20]

Finally, ISS 2018 respondents were also asked whether they "intend to continue living in your current *yishuv* in the next 5 years." If someone replied "no" to this question, it does not necessarily mean that they want to migrate out of the district. But at the very least, responses to this question are a measure of people's relative willingness to leave their current abode. Results from a parallel regression analysis of this question are completely consistent with the analysis of actual movement out of the district reported above: people who said that they had no plans to move in the next five years tended to be older than 35, married, to be parents, and less educated. These are predictors of non-migrant "stickiness" in general, and in Israel's South in particular.

Satisfaction with life

Another general driver of migration decisions, especially in developed countries with more openness to migration, is "satisfaction." Like other "latent" and "multidimensional" factors, this is not the easiest construct to measure empirically. We need data on attitudes to a large range of things. Like attitudinal variables in general, questions about satisfaction are more susceptible to measurement error — driven by some daily fluctuation in mood or more stable source of bias like social desirability or conformity bias. When aggregating those responses into combined indices of satisfaction we must assume how individuals weight each of the components. Nor do we know how stable those weights are. For all these problems, it is important to measure satisfaction, especially if we want to understand the ideational context in which people make any decision, including about migration.

20 People who had moved were asked to specify the "main reason." Given both the small sample size and the exclusivity of these categories — they do not allow for combinations — we think they are of limited utility so banish them to a footnote. The basic results show that among the 61 that left the South, only nine reported it was to "improve quality of life," and another four for "social reasons." More common justifications were family (19 cases), studying (13 cases), and own or partner's change in employment (11 cases). Among those that moved to the South, the two most common reasons were also "family" (also 19 cases) and studying (7 cases). Among these in-migrants, five people claimed they were driven by a desire to improve their quality of life.

Table 3.1. Questions on "How satisfied are you with your..." from the CBS Social Survey 2018, by category

Category 1 General and social	Category 2 Economic	Category 3 Living conditions and local area
Life in general	Economic situation in general	Apartment
Family connections	Work	Area
Neighbors	Income	Parks
	Roads	Cleanliness
	Transport	Safety

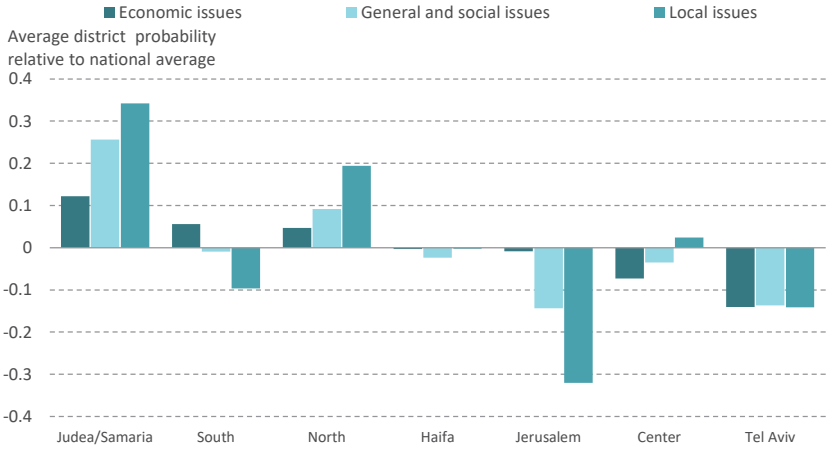
Source: Alex Weinreb, Taub Center | Data: CBS, Social Survey 2018

The ISS asked respondents to rank their satisfaction on a number of different factors, as shown in Table 3.1. To check whether responses to these questions differ in the South from those in other districts, we specified a series of logit regressions, each checking the likelihood that someone would claim to be "very satisfied." As above, each of these models adjusted for variation in age, education, parents' education, and ethnicity. We then generated a district-level probability for being very satisfied on each of them and averaged these district-level probabilities within each of the three categories listed in Table 3.1 (within each category, each of these probabilities had equal weight). Finally, we calculated how much those average district-level probabilities of being "very satisfied" deviate from Israel's mean probability.

Figure 3.4 shows the results of this comparative analysis. In terms of satisfaction with life in general, including the strength of family ties and feelings about neighbors, respondents in the South report higher satisfaction than their counterparts in all other districts with the exception of Judea/Samaria and the North. In terms of economic satisfaction, residents in the South do even better. Only residents of Judea/Samaria report higher levels of economic satisfaction. More generally, residents of all the "peripheral" districts score higher on this measure than their counterparts in Central, Jerusalem and Tel Aviv Districts.

In fact, the only category of satisfaction in which residents of the South scored significantly below the national average was a composite of local issues, ranging from housing quality to local roads, transport, cleanliness and the availability of parks. On this measure there is also a marked and intriguing difference between residents in the South and their counterparts in the North.

Figure 3.4. Proportional difference between district level probability of responding "very satisfied" and national average, by category and district, adjusted for age, education and ethnicity



Note: Districts are sorted by "Economic" satisfaction.
Source: Alex Weinreb, Taub Center | Data: CBS, Social Survey

Housing stock and housing market

It is widely known that Israel's growing population has long placed significant pressure on the housing market. That pressure is reflected in the long-term upward trend in real-estate prices alongside the growth in housing stock, both within existing settlements and in new ones. The increase in price of real estate has been very sharp since around 2009, increasing by almost two-thirds nationally, and more in or close to Tel Aviv. At the same time, as overall levels of wealth have increased in Israel, so, too, have people's consumer aspirations and expectations. This has led to an increase in apartment size.

There are signs of these two trends in the South. Like other "peripheral" areas of the country — especially Northern and Haifa districts — the South may even have begun to benefit from those trends since its cheaper housing stock makes it relatively attractive to families with shallower pockets, as implied in Figure 3.3 (higher in-migration to the South of people with less educated parents). Likewise, the relative proximity of some of the South's key residential centers to the center of the country, the significant improvements in rail and road links to the Center, and the increasing openness to at least partial work from home, have widened the radius of what is considered a reasonable commute.

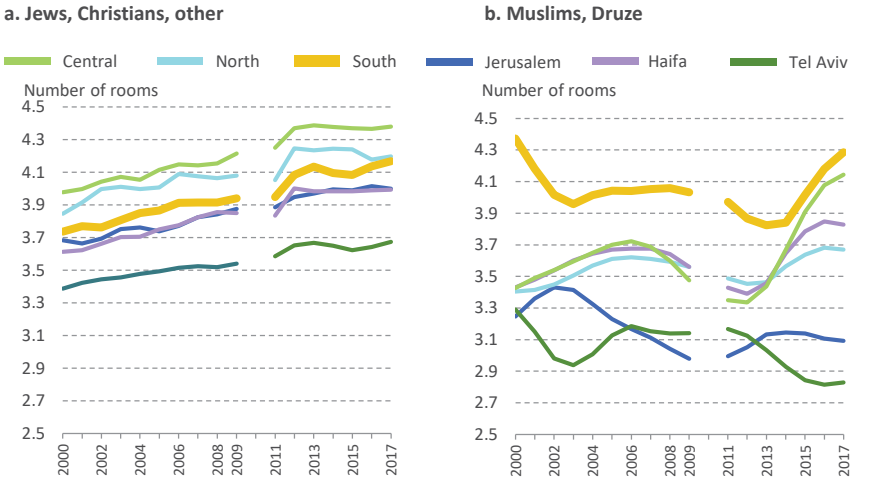
a. Number of rooms

Data from the Labor Survey confirm that there has been a steady upward trend in the size of apartments in the South over the last 20 years, especially in the non-Arab population. This is in spite of the fact that the average number of people in a household has remained relatively stable — as noted earlier, it fell by 1% between 2009–2019. This increase in apartment size has paralleled trends in other districts, as shown in Figure 3.5. In 2000, the average residence of Jews and others in the South had 3.7 rooms. By 2017, it had increased to 4.2 rooms, on par with residence size in the north, around 0.2 rooms more than in Jerusalem and Haifa districts, and 0.5 rooms more than in Tel Aviv. Only Central District has larger houses on average, but as we show below, at a much higher price.[21]

Trends in the Muslim and Druze sectors were somewhat different. In 2000, apartments in the South had more rooms than in any other region. After a dip and relative stability between 2003–2008, it fell and then rose again to around 4.3 rooms per dwelling. There have also been longer-term increases in apartment size in the Muslim/Druze sectors in Central, Haifa and Northern Districts. By 2017, this had led to two main groupings: the increasingly small apartments in the Muslim sector in Jerusalem and Tel Aviv, and the larger apartments in all other regions. On the other hand, even allowing for fluctuations due to sampling variation, the significant dips around 2011 suggest that there are some problems with data reliability in this sector.

21 The year-on-year fluctuations in the number of rooms are caused by sampling variation. For this reason, it is recommended to focus on the longer-term trend.

Figure 3.5. Number of rooms in dwelling by district and subpopulation



Note: In 2010 there were broad changes in the survey methodology. Data have been concatenated to their level after the break in the data.
Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

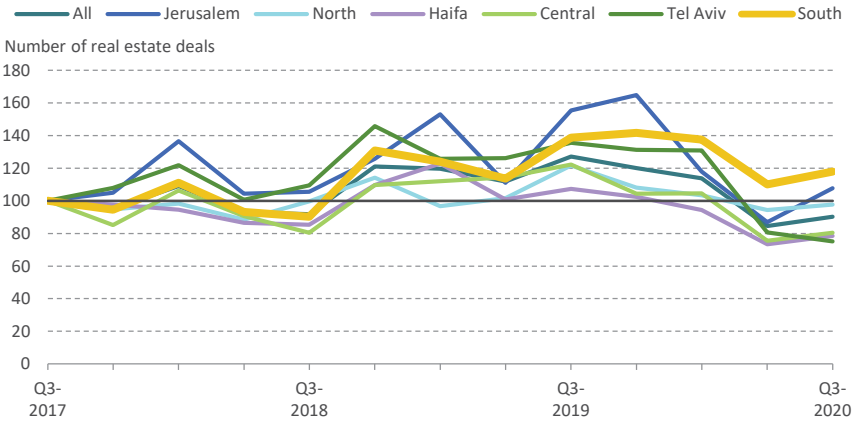
b. Real estate deals

When we focus more narrowly on recent trends in the number of real estate deals, the types of housing stock, and the associated prices, we see that during the COVID-19 epidemic, the real estate market in the South has looked more resilient in terms of number of sales and price than in other districts.

Figure 3.6 graphs quarterly trends in the number of housing units sold, by district, relative to the number sold in the 3rd quarter of 2017. Not surprisingly, after a relatively slow four quarters until late 2018, there was an upward trend in all areas, and then a sudden dip in early 2020 as responses to coronavirus set in. For all districts other than the South, the number of real estate deals dipped below that of 2017, 3rd quarter, in the Spring of 2020 and hovered around 80% of that level into the 3rd quarter of 2020 in Tel Aviv, Central, and Haifa Districts. In the North and Jerusalem, the number of deals remained around parity with the baseline 2017 level. But in the South it exceeded the 3rd quarter from 2017 by 18%. That is much less than the 40% jump the year before, but it points to a considerably stronger performance than in any other region.

Figure 3.6. Number of real estate deals in the last 3 years, by quarter

Index: Third quarter 2017 = 100



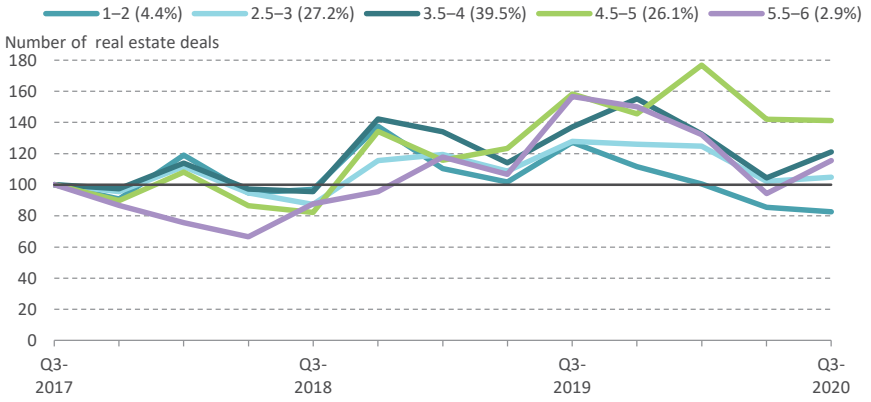
Source: Alex Weinreb, Taub Center | Data: CBS

c. Types of apartments bought

Figure 3.7 shows trends in the types of apartments being bought over the same period, focusing solely on the South. Between late 2017 and late 2019, the largest increases in the types of apartments being purchased were concentrated in the medium-sized and large apartments, best suited for families: everything from 3.5 rooms to 6 rooms increased by around 50% over the late 2017 purchases. In contrast, sales of 2.5–3 room apartments increased by 25%, and 1–2 room apartments by only 11%. By the 2nd and 3rd quarter of 2020 — now deep into the coronavirus epidemic — sales of 4.5–5 room apartments were still 40% higher than they had been 3 years earlier. And sales of the other family sizes — anything from 3.5 rooms and up — remained 20% higher than their late 2017 levels.

Figure 3.7. Trends in the size of apartments bought in Southern District in the last 3 years, by quarter

Index: Third quarter 2017 = 100



Source: Alex Weinreb, Taub Center | Data: CBS

d. Price

The extent to which price is implicated in these trends is somewhat unclear. On the one hand, as seen in Table 3.2, apartment prices are clearly much cheaper in Southern District than the national average. Without accounting for differences in the size of apartments, those sold in the South were between 67 and 70% of the price of apartments sold in other areas, and they were only 55–58% of the price of apartments sold in the central part of the country — Tel Aviv, Central and Jerusalem districts. On the other hand, they were roughly on par with apartments prices in the Haifa and Northern districts. This suggests that something other than price has made the housing market in the South more resilient than its counterparts in Haifa and Northern districts, as seen in the quantity of sales in Figure 3.6.

Table 3.2. Price of apartments sold in the South relative to prices in other districts

Price in the South relative to:	2020a	2019	2018	2017
All other districts	0.698	0.702	0.675	0.668
Tel Aviv, Central, and Jerusalem Districts	0.576	0.580	0.554	0.546
Haifa and Northern Districts	1.028	1.026	1.003	1.005

Note: Data for 2020 are from the first three quarters of the year.
Source: Alex Weinreb, Taub Center | Data: CBS

Summary

We have seen a number of things in this chapter.

- Alongside the 20% increase in the number of households in the South between 2009–2019, there has been a slight reduction in the share of households that include co-resident adult children, and a slight increase in the number of childless households in general — these latter now account for about 40% of all households.
- Migrants to and from the South have a similar profile to those in other districts in terms of age, ethnicity and education: they tend to be under 40, not Arab, and more educated. However, migrants to and from the South differ from the national norm is terms of parents' education. After adjusting for a person's own education, we find that a person aged 20–39 with the most educated parents — either both have a BA or at least one has a higher degree — had only a 13% chance of moving out of the South, which is about half the national average. Likewise, the probability of in-migration to the South from elsewhere in Israel is higher for people with less educated parents.
- People in the South have higher levels of economic satisfaction than people in any other district — with the sole exception of (Jewish) residents of Judea/Samaria. People in the South also outscore residents of Haifa, Central, Jerusalem and Tel Aviv Districts on life-satisfaction in general, an index that includes measures of satisfaction with neighbors and family. Where the South scores low is on a range of measures associated with living conditions, from one's own apartment, to the local area, parks, cleanliness and safety. Only residents of Jerusalem and Tel Aviv do worse on this measure.
- In 2000, the average residence of Jews and others in the South had 3.7 rooms. By 2017, it had increased to 4.2 rooms, on par with residence size in the north, around 0.2 rooms more than in Jerusalem and Haifa districts, and 0.5 rooms more than in Tel Aviv. Only Central District has larger houses on average.
- The real estate market in the South has looked more resilient during the COVID-19 epidemic in terms of number of sales than that of all other districts. The South was the only district in the country in which combined sales in the second and third quarter of 2020 exceeded those of the same

quarters in 2017 or 2018. This is a testament to strong ongoing demand. That demand is particularly concentrated in the 4.5–5 room sector.

Overall, these results point to a significant increase in quality of life in the South — from increasingly less cramped households to higher-than-average levels of economic and general satisfaction — and to greater readiness that potential buyers have in the South to buy into the region, even during the difficult and restrictive period of the COVID-19 epidemic. On the flipside, the higher rates of in-migration among people with less educated parents — including first-generation higher-education graduates — suggests that the South is less a destination of choice for people who can draw on more intergenerational stores of wealth.

What else do we know about people in the South? How have the educational and employment characteristics changed over time? It is to those questions that we now turn.

4. Education and labor characteristics

We noted in the introduction that substantial public investments have been made in the South to augment levels of human capital, and to supplement other types of infrastructure (expansion and improvement of higher education, military command, roads, and so on). In the previous chapter we also noted the relatively high levels of economic satisfaction among the South's residents, its relatively cheap real estate, the resilience of the South's real estate market even during the COVID-19 epidemic, and the greater stickiness of the South for first-generation higher-education graduates.

In the current chapter we focus more directly on human capital issues in Southern District. Our main goal is to describe the education and employment profile of Southern District's population. In doing so, however, we also describe how the distinct education and employment profiles of different subpopulations in the South lead to concentrations of economic stability in some groups, and poverty in others.

Our focus on education and employment is rooted in the simple and widely accepted idea that the availability of human capital is one of the key drivers of private capital investment in developed countries.[22] This is particularly the case for higher-skilled positions, which are typically also higher-paying. Yet we also draw attention to the feedback loops in this relationship. Areas with more educated populations are more attractive to most investors and employers, as well as to skilled in-migrants, and to skilled locals who might otherwise consider migrating away from the area, whether for economic or social reasons. Recall that we also noted an important negative finding for the South in the last chapter: the relatively low levels of satisfaction with local conditions among the South's residents, much lower than in the north, center or in Haifa.

In 2017, the Knesset Information and Research Center published a collection of data on employment and industry in Southern District (Moshe, 2017). The document found that on most employment measures (labor force participation, unemployment, average wage and the share of employees whose income is lower than the minimum wage) Southern District fared worse than the national average, but on many it fared better than Northern and Jerusalem Districts.

22 Factors driving public investments can be quite different.

In a 2016 OECD publication on employment and the local economy in the countries of the organization, an analysis was made of the relationship between supply and demand and skills in the various subdistricts in Israel.[23] The Be'er Sheva subdistrict and the Ashkelon subdistrict, along with other subdistricts from the periphery, were found to have low supply and demand for skills, which places them in a "low-skill trap." That is, there is less incentive for employers to invest in quality jobs in these areas, since there is an insufficient number of residents with the necessary skills. And on the flipside, the absence of such jobs reduces the incentives of local residents to acquire high-level skills. Or, if in spite of this absence a local resident acquires such skills, s/he will be more likely to migrate elsewhere, contributing to the "brain drain," as reflected in the models of migration in the last chapter.

Education profile

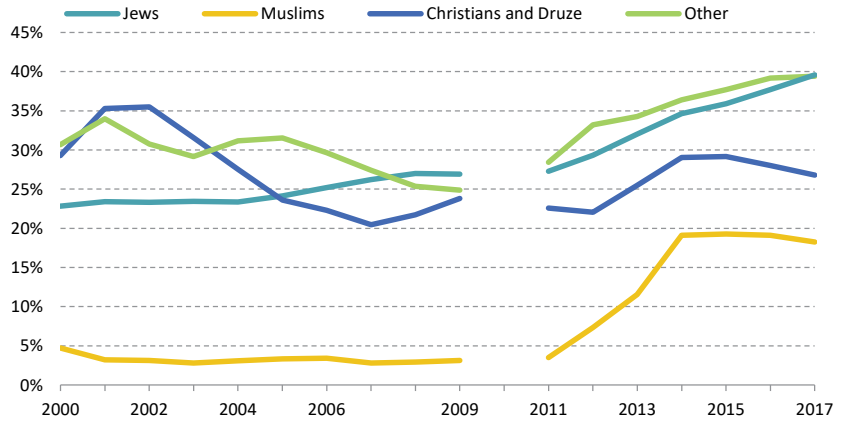
a. Improving educational characteristics

To chart education trends in the South, we use data from the Israel Labor Force Survey, a nationally representative survey of households fielded by the Central Bureau of Statistics every year. We have pooled all LFS data since 2000.

The education profile of the South's population has improved markedly over the last few decades. Figure 4.1 shows the proportion of 30–44-year-olds in the South — people in their prime working age — who have an academic degree (BA, MA, or higher). We detail this over the 2000–2017 period for four main population groups, combining Christians and Druze, minimally represented in the South.

23 See OECD Studies on SMEs and Entrepreneurship.

Figure 4.1. Percentage of people aged 30–44 in Southern District who have a first degree, by sector



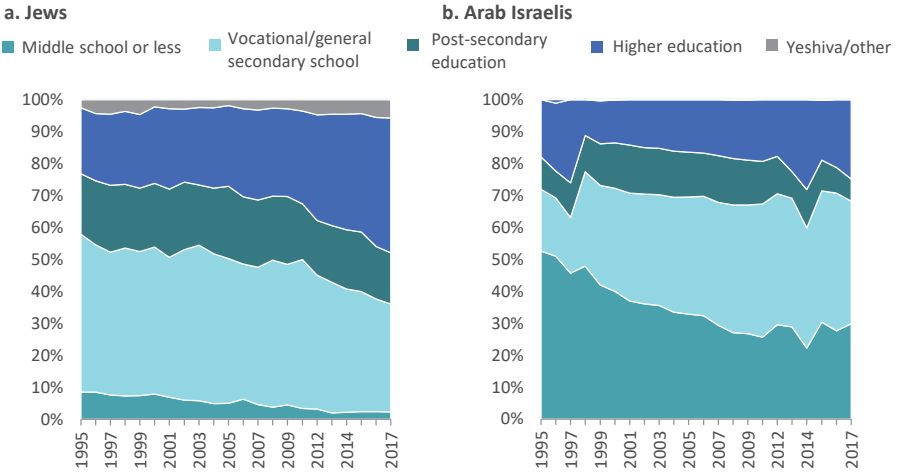
Note: In 2010 there were broad changes in the survey methodology. Data have been concatenated to their level after the break in the data.
Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Among Jews aged 30–44 in Southern District in 2000, around 23% had an academic degree. By 2017, this was true of around 40% of Jews in the same age group. Among same-age Muslims in the South, the equivalent percent remained flat and low for a long time — below 5% — until around 2011. Then there was a sharp increase leading to 20% with a first degree.[24] Trends in the smaller, though rapidly growing, "Others" and Christian subpopulations look somewhat different. Both began at a higher level than Jews, with 30–35% university educated in the 2000–2002 period, before a gradual reduction over time. This continued for Christians, but reversed among the Others, whose levels have tracked those of Jews since around 2008.

More detailed data on changes in the education profile of the two main subpopulations in the South can be seen in Figure 4.2. It shows the proportions within each educational category for the two major population groups in the South: Jews in panel (a) and Muslims in panel (b).

24 We think this increase is partly an artifact of changing sampling procedures among the Bedouin in the South in 2011. We know from other sources that there are increasing numbers of Arab students at Ben-Gurion University, so feel fully confident in the upward trend, but much less so that it has reached 20%.

Figure 4.2. Education profile of 30–44-year-olds in Southern region, 1995-2017, by sector of head of household



Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

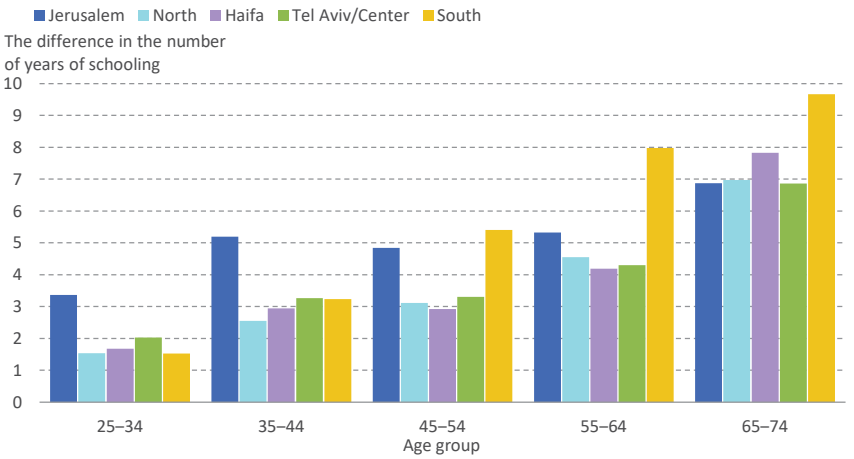
In the Jewish population, the increase in academic education — the blue bloc — has substituted for the proportion of students completing their education in vocational or general secondary school — the latter falls most years. There have also been small reductions in the proportion with less than a high-school education, and non-academic post-secondary schools (teaching colleges and vocational courses). In the Arab population, in contrast, most of the increase in the percentage with an academic degree is due to the reduction in the proportion who have less than a secondary-school education. This is a much more dramatic change in education profile.

b. Shrinking education inequality

The data thus far clearly show that levels of human capital in the South are rising. Yet they also suggest that Jewish:Arab education inequalities in the South have shrunk quite rapidly. We confirm this by comparing the difference in mean years of education of Jews and Muslims across all districts in Israel across consecutive 10-year age groups (using a pooled sample of adults in the LFS 2015–2017).[25] The results are graphed in Figure 4.3.

25 Since the Arab populations of Tel Aviv and Central Districts are relatively small, they are pooled. Likewise, no Israeli Arabs appear in LFS samples in Judea/Samaria District, so education differences cannot be estimated.

Figure 4.3. The difference in the number of years of schooling of Jews versus Arabs, 2015–2017, by district and age



Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

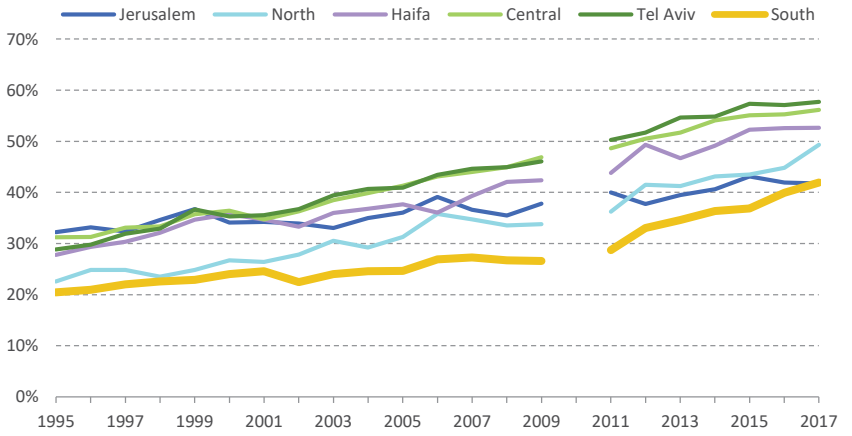
In every district, we see a reduction in the education difference as we move toward younger age groups. Nationally, however, this reduction in inequality has been sharpest in the South. Among 65–74-year-olds — who would have begun primary school sometime between the late 1940s and late 1950s — Jews have approximately 9.7 years more schooling than their Arab counterparts. Among 25–34-year-olds — who would have begun primary school sometime between the late 1980s and late 1990s — that difference has fallen to 1.5 years.

Of course, these data do not tell us how well students are doing, or which subjects they are specializing in during the final years of secondary school — for example, how many are doing 5-units in their matriculation exams in subjects like mathematics and English that are strong predictors of higher subsequent income. But they unambiguously point to a reduction in education inequality. And the rapid rise in the number of Arab students receiving a university degree provides independent support for this trend.

c. Still lagging

As in earlier sections, we think it provides a partial picture to only focus on trends in the South alone. Figure 4.4 corrects this by presenting data on the proportion of people 30–44 with a first degree by district. To simplify the comparison — and address sample size issues — we focus on the Jewish population alone.

Figure 4.4. Share of Jews 30-44 with a first degree, by district



Note: In 2010 there were broad changes in the survey methodology. Data have been concatenated to their level after the break in the data.
Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Here we see the biggest disadvantage of the South emerge. Notwithstanding the substantial increase in the percentage of Jewish residents with a first degree over the last 20 years, the South's Jewish population remains the least educated. Among 30–44-year-old Jewish residents of Central and Tel Aviv districts, around 57% have a first degree. Among those in the North, about half have a first degree. The South, with around 40% having a first degree, lags behind. And even though this places it on par with Jerusalem District, secular education levels in the latter are pulled down by a much larger Haredi population, which suggests that the Jerusalem's non-Haredi Jewish population is considerably more educated than its Southern District counterpart.

Employment profile

a. Number of hours worked

The employment profile of people in the South largely reflects the educational characteristics we have just described. Here we focus on the number of hours worked, and the types of employment.

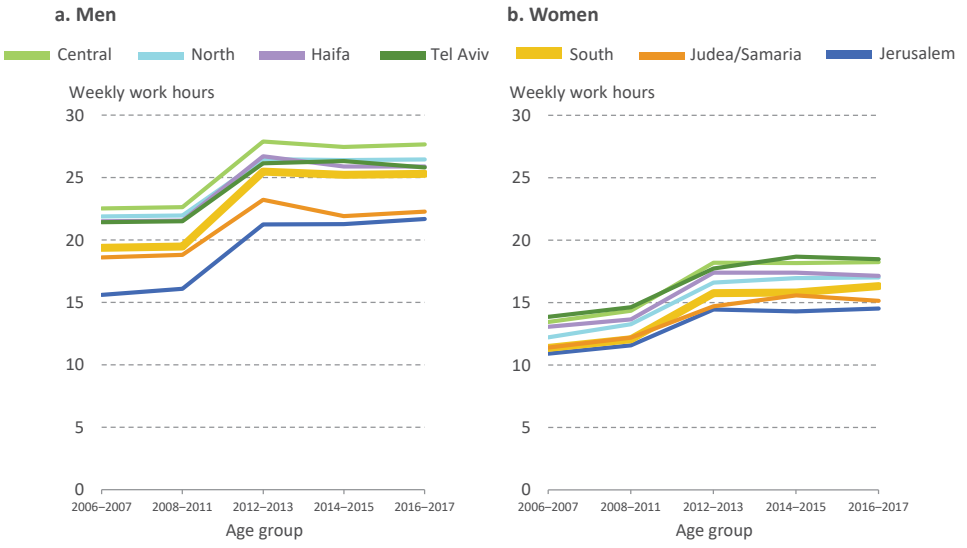
Since employment in Israel, and in general, covaries significantly with age, gender and religion, we generate comparable estimates of employment across districts in a regression framework that controls for these individual-level characteristics. A second set of models also controls for people's levels of education. Rather than specifying discrete models for fully, partly, and unemployed, we focus on the number of hours a person reported having worked the week before the survey. This is a standard measure of labor force participation in which the unemployed score zero.

We first estimate identical models on LFS data from a series of years, which allows us to identify trends in the scope of employment. We subsequently hone in on the most recent data in more detail, identifying differences by sector.

To simplify presentation, Figure 4.5 presents results from these models in terms of predicted number of hours spent working in the prior week by someone aged 35–44 in each district. By this age, people are usually embedded in a career or have acquired the core skills that they will use in the labor market. Data on men are in panel (a), and on women in panel (b).

Beyond the expected gender difference in number of hours worked — women have more "unpaid" domestic labor ("invisible work"; for more on this see Kaplan & Karkabi Sabah, 2017) — there are some clear and significant differences in reported hours of work across districts, with a bigger range among men than women: by 2017, men aged 35–44 in Jerusalem were working 21.7 hours in the previous week, while their counterparts in Southern and Central districts were working 25.2 and 27.7 hours; for women, the range was from 14.5 to 18.4, respectively, with women in the South working 16.3 hours. In all cases, these were notably greater than in the first decade of the century, which parallels the increase in education documented above.

Figure 4.5. Number of hours worked by 35–44-year-old in the week before the survey, by gender and district

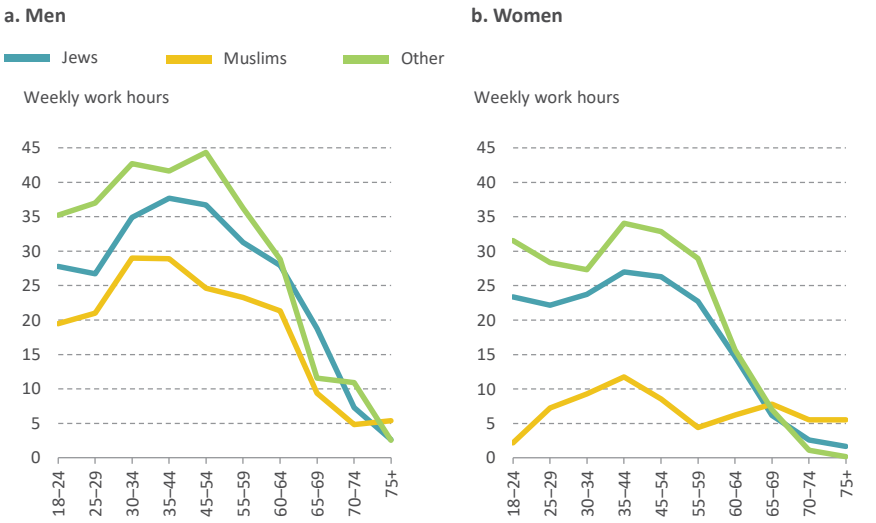


Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Within the South in particular, there are substantial differences in the number of hours spent working across the three main population sectors. These are shown in Figure 4.6, which presents the number of hours worked per week by age, adjusted for differences in educational attainment.

Among both men and women in the South, fullest employment can be found among adults whose household is headed by someone who is neither Jewish nor Muslim — this is the growing population of "other." Among men, members of this "Other"-affiliated household work between 4–10 hours more per week than members of a Jewish-headed household from age 25–54 — even though, as noted in Figure 4.1, they have almost identical proportions with a first degree — and between 13–19 hours more per week than members of a Muslim-headed household.

Figure 4.6. Number of hours worked by adult residents of Southern District in the week before the survey (2016–2017), by gender, age, and religion of household head



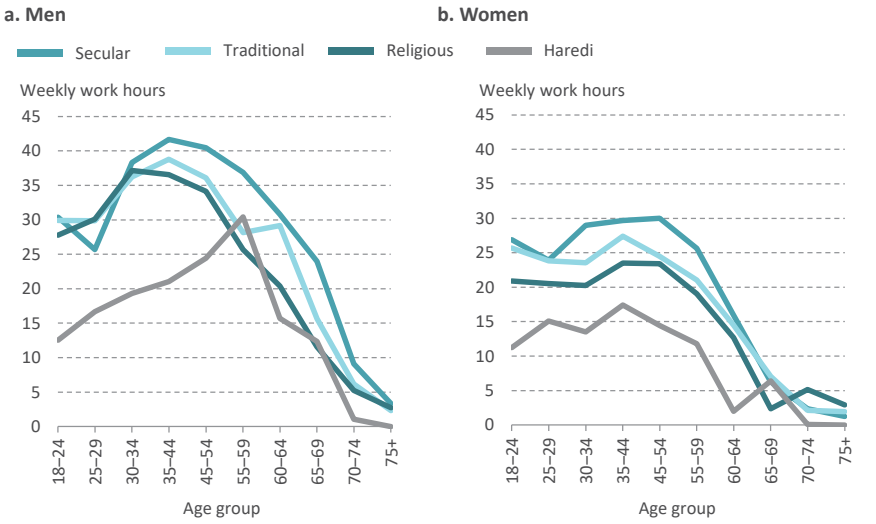
Note: Estimates are adjusted for differences in educational attainment.
Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Differences between women in Jewish- and other-headed households are roughly the same as among the men, but the differences between women in these two groups and women in Muslim-headed households are even larger. Labor force participation among Arab women in the South — at least of the types captured by the Labor Survey — peaks in the 35–44 age-group at a mere 11.7 hours per week. Same-age women in Jewish-headed households worked on average 27.0 hours, and those in other-headed households worked 34.1 hours.

Coupled with differences in the types of employment, which we cover below, this variation in labor force participation has significant implications for both income and the accumulation of wealth over a lifecourse. Moreover, given that marriage in each of these groups tends to be endogamous — that is, from within the same sector — these differences in labor force participation also have implications for concentrations of poverty. Before addressing that issue, we quantify variability in labor force participation in the South in one final way: by religiosity.

Figure 4.7 shows the hours worked in the prior week by adults in Jewish-headed households, by religiosity. As above, these estimates are adjusted for educational differences across the sectors.

Figure 4.7. Number of hours worked by adult residents of Jewish-headed households in Southern District in the week before the survey (2016–2017), by gender, age, and religiosity of household head



Note: Estimates are adjusted for differences in educational attainment.
Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Among men, labor force participation is identical across secular, traditional, and religious Jews up to the mid-30s. It then begins to taper for religious as the secular increase their hours of work to more than 40 per week — up to the 50s, the secular and "Others" have a very similar path in terms of hours worked. This difference across level of religiosity remains until past the age of retirement.

Haredi men in the South have a quite different pattern. In their 30s and 40s they work only about 50–60% as many hours as other Jewish men. But from their late 50s, their hours of labor are roughly equivalent to those of other religious men. We suspect that this increase in labor relative to the

younger Haredim in the South is a cohort effect — that is, Haredi men in these older age groups in the South have always worked, maybe because they were disproportionately Sephardi Haredim — as shown in Table 2.1 — rather than permanent *lamdanim* in the more contemporary Hasidic and Litvak tradition. Unfortunately, no extant data allow us to directly check this, since the Labor Survey only began to collect data on religiosity in 2015.[26]

Among Jewish women in the South, labor force participation is inversely correlated to religiosity in a clearer way. Here, too, secular women work about twice as many hours as Haredi women at all ages, and 20–30% more than religious women during the prime working ages of 30–55.

Finally, adding to the impression that Haredim in the South are different than their counterparts, in the Haredi heartlands of Jerusalem, Tel Aviv, and Central Districts the labor force participation of Haredi men is higher than that of women in the South. That is the opposite of the national pattern.[27]

These differences in labor force participation in the South — between different ethno-religious groups, and by religiosity within the Jewish sector — have profound effects on lifetime income and subsequently on the accumulation of wealth and concentration of poverty. We can show this by calculating a period measure of total hours worked across a lifetime. That would be the total number of hours worked by a hypothetical man or woman in each of these sectors, assuming they worked the average age-specific number of hours associated with their respective sectors from their 25th to 75th birthday. And if we further assume that these individuals marry endogamously (i.e., within their sector), the total number of working hours accumulated by their household would be the sum of those two totals — for simplicity, assume that no other person in the household is also working.

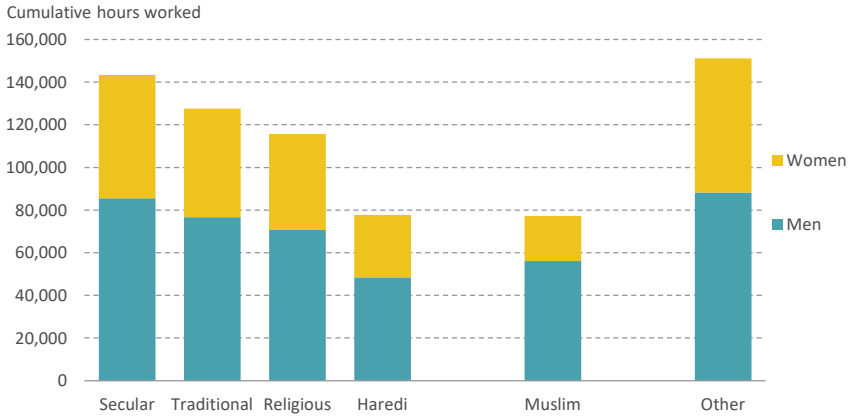
Figure 4.8 graphs these period measures. At the current level of labor force participation, an average man in a secular Jewish-headed or other-headed household in the South will work more hours in his working life — respectively, 85,500 and 88,200 — than the total of an average man and woman in either a Haredi- or Muslim-headed household in the South: neither of these latter exceeds 80,000 hours. Likewise, given the greater number of hours worked by women in secular Jewish-headed or other-headed households, these

26 The alternative explanation is that as Haredi men in the South reach their 50s, they increase their labor force participation, just as every other group is beginning to reduce theirs after peak labor period in their 30s and 40s. This alternative explanation seems much less likely.

27 See Weiss, 2019, p. 58.

sectors end up with 143,300 and 151,100 working hours across a lifetime, respectively. Traditional and religious-headed households in the Jewish sector end up with 127,600 and 115,800 working hours, considerably less than the leading sectors, but still far more than their Haredi or Muslim counterparts.

Figure 4.8. Cumulative number of hours worked from age 25 to 74 at current age-specific hours of work per week by two adults, by religion of head of household, and Jews' religiosity



Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Of course, the number of hours worked does not automatically translate into income. We need to also look at wages by type of employment. It is to that we now turn. As we shall see, however, accounting for type of employment underscores the importance of quantifying hours worked if we want to understand the roots of wealth and poverty in the South. Groups associated with longer work hours also tend to be in higher-paying positions.

b. Employment sector

Occupational structures can be categorized with varying degrees of detail. Given the two major constraints here — space and data sources — we focus on a "2-digit" categorization. This places any given occupation into one of 80 discrete categories, each represented by a two-digit code.[28]

28 A less detailed categorization disaggregates these into 19 groups, each represented by a letter ranging from A to S. More detailed 3- and 4-digit codes also exist, though at the subnational level with varying levels of sampling error across time, so they are of no use to us here.

We have two main goals in this section. The first is to identify trends in employment categories in the South that are associated with higher income. In Israel, as elsewhere, these are disproportionately but not solely related to higher levels of education. The second goal, building on prior analyses, is to identify the types of people in the South that are most (and least) likely to be employed in these occupations.

The reason for doing this is both to track trends in income levels, but also to look for signs of diversification in the higher income base in the South. As we show below, relatively high incomes in Israel — which we define as 70% greater than the mean — are not only associated with the high tech industry. These income levels can also be found in certain types of manufacturing, and in various managerial and financial services, both in the private and public sectors. Yet, on the other hand, prior research has shown quite significant differences in productivity levels across these occupational categories, which has implications for the level of private investment we can expect to help push them further. In simple terms, managerial and financial services tend to be high-paying but low productivity. This bodes ill for future private investment. The high tech industry, in contrast, tends to be more highly productive. Hence its centrality in Israeli development plans in general, and in the development plans of every district in the country, including the South.

Since LFS data do not include information on salaries, we link LFS data on employment category with prior CBS information on average salaries by economic sector (Znati et al., 2014). This provides a good indicator of variability in the most remunerative employment categories across districts.[29]

Table 4.1 presents data on three main clusters of occupations in Israel in which salaries are at least 70% higher than average. The first is information-technology and research. The second is broadly managerial and financial services. The third is high-end manufacturing.

29 At the national level, an alternative approach would be to use data from the Income and Expenditures Survey. Unfortunately, sample sizes are too small to do this reliably at the district level.

Table 4.1. Occupational categories in which average monthly wage is at least 70 percent greater than the mean wage in the labor market

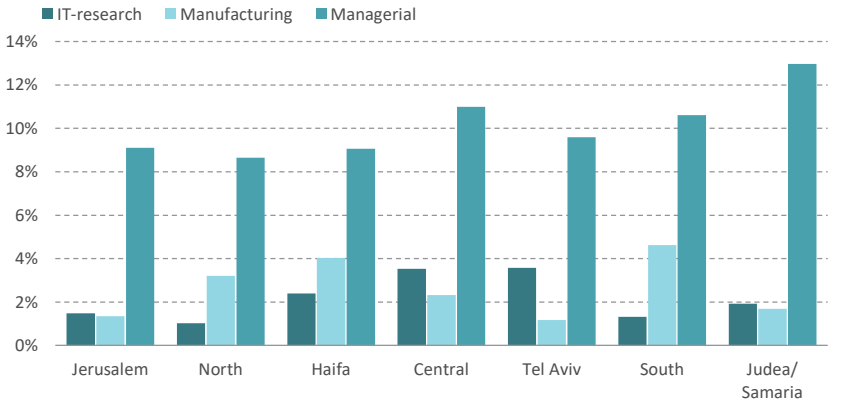
Industry and division	Average wage in the industry relative to the average labor market wage
Scientific and technical	
Computer programming and related	2.11
Scientific research and development	2.40
Financial, administrative, and public	
Management of electricity & water supply	2.51
Financial services (not including insurance and pension)	2.15
Public administration, defense, and social security	1.73
Manufacturing	
Manufacture of petroleum products	1.70
Manufacture of pharmaceuticals	1.83
Manufacture of computers, electronics, optical	2.08

Source: Alex Weinreb, Taub Center | Data: CBS

To see how each of these vary across the districts we fit a series of logit models on each cluster to look at the probability of a given worker — male or female — being in one of these employment clusters. To track changes across time the models were replicated on pooled data for 2012–2013, 2014–2015, and 2016–2017. All models adjust these estimates for variation in age and education.

Figure 4.9 presents basic results across the districts for 2016-2017 (unless otherwise mentioned, these do not differ from those of prior time periods). In total, about 16.5% of employees in Southern District are in one of these relatively high-paying occupations. That is marginally higher than the national average of 14.9%. Most of these are in the managerial category, which has the least amount of variation across districts. In the South, some 10.6% of employees are in this category, which is just marginally higher than the national mean. Where the South differs from that national mean is in the other two categories. Employees in Southern District have a considerably lower probability — 60% of the national average — of being in a position categorized as scientific R&D or computer programming. This is lower than in the 2012-13 period, when it was 72% of the national average (though that difference is within the bounds of sampling error). On the flipside, an employee in the South is 76% more likely to be employed in a high-end manufacturing position than the national average. On this measure, Southern District scores highest in the country.

Figure 4.9. Probability of someone currently employed being in one of the three categories of relatively high-paying occupations, by district, adjusted for age and education



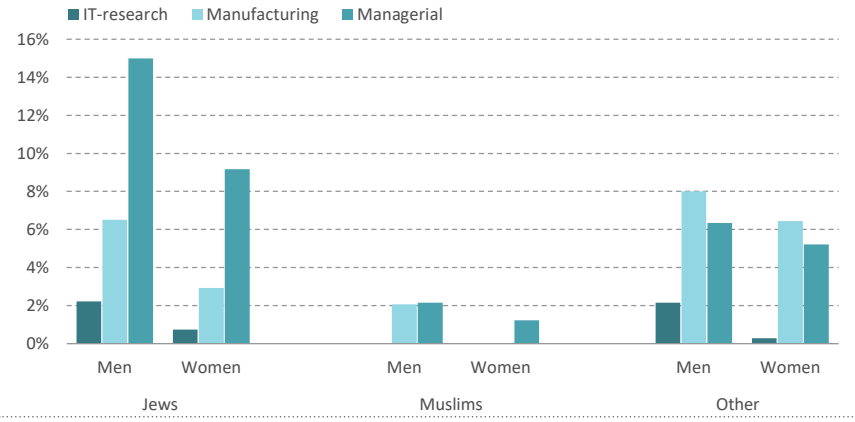
Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Focusing on Southern District alone, we see very significant differences in these probabilities across populations. Figure 4.10 presents the probability for adult men and women aged at least 25 by the religion of head of household. The probability of being employed in an IT-research position or in high-end manufacturing are similar for adults in Jewish and other-headed household. If anything, women in "Others"-headed households are more than twice as likely as their counterparts in Jewish-headed households to be employed in one of these high-paying manufacturing positions. Men and women in Muslim-headed households are, in contrast, much less likely to be any of these occupations. Muslim women in the South actually score zero probability on IT-research and manufacturing.[30]

The other key finding here is the relative dominance of Jewish men and women over the managerial category, which, as noted earlier, includes a range of financial, administrative and public sector roles.

30 This does not mean that there were none employed in these sectors in the South as a whole. It simply means that their employment levels were so low that of the 2,460 data points on adult Muslim women in the South in these two years, none included employment in these occupations. So, if not zero in absolute terms, it is close enough to zero in terms of understanding the labor market.

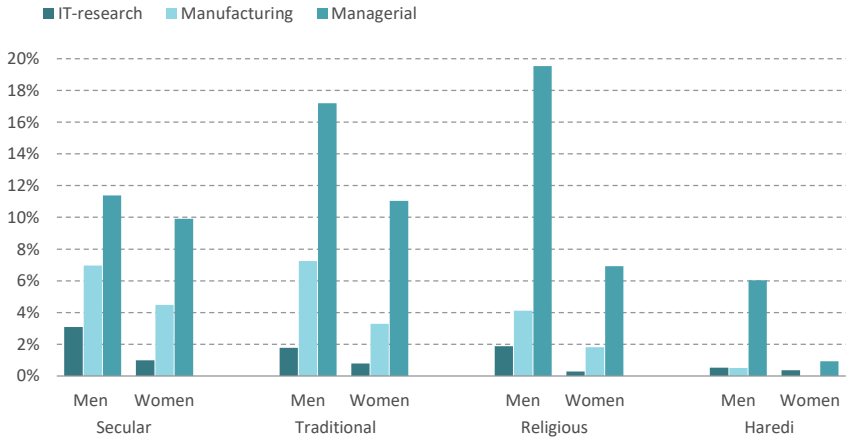
Figure 4.10. Probability of someone currently employed being in one of the three categories of high-paying occupations among residents of Southern district, by population group and gender, adjusted for age and education



Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Finally, there are some notable differences across religiosity. First, and not surprisingly — given their generally low levels of secular education — there are relatively low rates of employment in these remunerative occupational sectors among Haredim, though somewhat surprisingly, this includes Haredi women, who tend to have higher levels of human capital. Second, though religious men tend to have lower levels of employment in high-end manufacturing than their secular and traditional counterparts, they make up for it in terms of higher employment in managerial sector. Religious women, in contrast, have lower rates of employment in all three of these occupational categories.

Figure 4.11 Probability of someone currently employed being in one of the three categories of high-paying occupations among residents of Jewish-headed households in Southern district, by religiosity of household head and gender, adjusted for age and education



Source: Alex Weinreb, Taub Center | Data: CBS, Labor Force Survey

Summary

Notwithstanding a prior OECD publication that warned about the "low-skill trap" in the South, we have found evidence of significant improvements in human capital, very significant differences in labor force participation across subpopulations, and substantial remunerative employment outside high tech. More specifically, in terms of education we have a shown:

There have been substantial increases in higher education in the South. Among Jews aged 30–44 in Southern District in 2000, around 23% had an academic degree. By 2017, this was true of around 40% of Jews in the same age group.

There have also been substantial increases in university education among the South's Muslim population. Among 25–34-year-olds, Muslims have 1.5 years less schooling then Jews. That is the same gap as in the North, and smaller than in any other district in the country.

On the other hand, even with these increases in education, the share of people aged 30–44 in the South with a first degree remains the lowest in any district in the country.

In terms of overall labor force participation, we have shown:

- Though the number of hours worked has climbed in Israel in general over the last decade, that increase has been a little sharper on average in the South, though it still somewhat lags behind Central, Tel Aviv and the Northern Districts.
- Within the South, adults classified as "Others" work more hours at all ages up to 60 than either Jews or Muslims. This is true for both men and women. After adjusting for educational attainment, men aged 25-54 who are members of an "Others"-headed household work between 4-10 hours more per week than their counterparts in Jewish-headed household and between 13-19 hours more per week than their counterparts in Muslim-headed household.
- Among Jews in the South, religiosity is also inversely associated with number of hours worked at almost all ages, with secular Jews working the most, Haredim the least, and the traditional and orthodox in between. Again, this ranking is the same for both men and women at almost all ages.
- Assuming that current age-specific hours worked by members of each subpopulation would remain unchanged, a secular Jewish or Other man will work more hours across his lifetime than either a Haredi couple or Arab couple.

Finally, in terms of type of employment, we have focused on high-paying positions. Here we show that:

- Although the South has relatively few high-paying tech jobs, it has the highest percentage of employees in well-paid manufacturing positions (computers, electronics, optical, pharmaceuticals, petroleum products), and in upper-level managerial or public administration positions. This suggests that there may be a regional concentration of the types of skill sets required for these occupations.
- There are differences in representation within these occupations across different subpopulations. In the high-end manufacturing sector, there is an over-representation of secular and traditional Jewish men and women, and Other men and women. Jewish men — especially traditional and religious—dominate the upper-level managerial and public administration sector. Arabs and Haredim, both men and women, are under-represented in all these higher-paying occupations.

References

English

Brand, G. (2018). *Why Does the Start-Up Nation Still Have Low Productivity?* Research Paper. Taub Center for Social Policy Studies in Israel.

CBS (2019). *Characterization and Classification of Geographical Units by the Socio-Economic Level of the Population 2015*. Central Bureau of Statistics.

Weiss, A. (Ed.) (2019). *A Picture of the Nation: Israel's Society and Economy in Figures*. Taub Center for Social Policy Studies in Israel.

Hebrew

Amit, H. (24 October, 2014). The periphery of the periphery: When and where did the State of Israel lose Arad? *The Marker*.

Arlosoroff, M. (25 February, 2020). So we don't all collapse, we need to stop sweeping Haredim off to the South. *The Marker*.

Kaplan, A., & Karkabi Sabah, M. (2017). *Invisible Work in Israel*. Publications of the Center for the Advancement of Women in the Public Sphere (WIPS). Van Leer Institute Press.

Moshe, N. (2017). *Data on Employment and Industry in the Southern District*. Knesset Research and Information Center.

Regev, E., & Gabriel, G. (2020). *The Haredi Housing Market and the Geographic Distribution of Israeli Haredim*. IDI Policy Paper 150.

Znati, S., Ginat, A., Abouganem, M., & Makovky, I. (2014). *Revision of the Sample of Wages and Employment Indices, 2011 And the New Classification of Economic Activities* (Standard industrial classification of all economic activities 2011). Central Bureau of Statistics.