

Education, employment and poverty among Bedouin Arabs in southern Israel

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ABSTRACT

Over the past five decades, impressive progress in schooling has taken place among the Bedouin-Arab community in southern Israel. Nonetheless, in 2004, less than 9% of females participated in the labor force, more than 20% of males were unemployed, and 79% of the population in the unrecognized villages and 61% in the recognized villages were living in poverty. This study describes the progress in educational attainment over the past five decades, the current status of employment and their relation to the high poverty rates in the Bedouin-Arab localities. We conclude that, due to the absence of adequate infrastructures, especially with respect to employment, the progress in education has not sufficiently translated into better economic well-being.

Introduction

Over the past decade, the poverty gap between Jews and Arabs in Israel has been widening, with an increasing number of Arab households living in poverty. A notable increase in the poverty rate, particularly among the Bedouin Arabs in southern Israel, occurred following cuts in child benefits and other public cash transfers in 2003. Ironically, the deterioration of the economic status of Arabs in Israel is happening at a time when the Israeli economy is experiencing high economic growth even when compared to the rich Western economies.

The low public investment in Arab settlements over the past five decades has resulted in a lack of employment infrastructure to accommodate the growing number of young people. The discrimination in the Jewish labor market against educated young Arabs, especially in sophisticated industries (Asali, 2006; Gera and Cohen, 2001; Klinov, 1999; Lewin-Epstein, Al-Haj and Semyonov, 1994), and the low level of education in these settlements has created a situation where many Arab workers are unemployed or employed in low paying jobs in the traditional sectors of the economy. The leading growth sector has been in hi-tech, where highly skilled Arabs are strongly underrepresented. Together with the low female labor market

participation rate, Arab households are earning low incomes and have a high probability of being poor.

The economic well-being of Arabs in Israel is unevenly spread geographically. Education attainment is higher in northern Israel, especially among Christians, as is female participation in the labor market. Access to higher employment opportunities is higher in the center, and the quality of basic infrastructures is better in the north and center. The Bedouin-Arab localities in the south are highly disadvantaged in all these respects. The focus of this paper will be on the economic well-being of the Bedouin Arabs in southern Israel, whose population in 2004 was 170,000, or 15% of the total Arab population in Israel.

In 1948, the population of Bedouin Arabs living in the Negev was about 90,000, with inhabitants mostly living in the northwestern area of the Negev (Falah, 1989). Like other Arabs, most of these were forced to leave, left voluntarily or escaped the country to neighboring Arab countries (Jordan, Syria and Lebanon) or the West Bank and the Gaza Strip. Most of the remaining Bedouin Arabs, who lived in the northwestern part of the Negev until 1948, were relocated in an area in the northeastern section of the Negev that was referred to as the *Siaj*. This area constituted only 10% of the land that the Bedouins had inhabited prior to 1948. They were joined to the remaining Bedouins who had been living there, and together accounted for about 15,000 inhabitants after the establishment of the State of Israel in 1948.

During the period of 1948–1966, a military regime prevailed, and movement of Arab citizens outside their localities required a special permit from the military governor. Such a permit entailed a bureaucratic process and was difficult to obtain. The restrictions imposed by the military regime and the lack of basic access to education, health and public transportation prevented the Bedouins from integrating into the Jewish labor market.

Until the end of the military regime in 1966, only a few elementary schools were built in the Bedouin localities. The fact that the Bedouins were scattered over a large area, cultural preferences concerning girls' education and the absence of basic infrastructure, especially transportation, made elementary school accessible only to those who lived close by. As a result, most children, especially girls, did not have the chance to attain even an elementary education. Until the late 1960s, when the first high school was built for the Bedouin community, young people who wanted to acquire a high school diploma had to move to the center or to the Galilee to study.

After the military regime was lifted in 1966, the Bedouin Arabs of the Negev were brought into greater contact with Israeli society. This contact resulted, in the best case, in a partial integration into the Jewish labor market, mostly in low skilled jobs. Nonetheless, the economic well-being of the Bedouin population deteriorated significantly relatively to that of the Jewish population. The low level of incomes and the absence of access to adequate public schooling has affected living standards ever since. Under these circumstances, it has been extremely difficult to create the

human capital, based on higher education and work experience, needed for successful integration into the Israeli economy and society.

In the late 1960s and early 1970s, the Israeli government initiated a program to resettle the Bedouin-Arab population in the Negev in seven permanent urban settlements: Tel-Sheva, Rahat, A'rara-Banegev, Ksayifa, Segev-Shalom, Hura and Laqiya. The declared rationale was to "modernize" the Bedouins and to provide these towns with the necessary infrastructure in education, health, running water, electricity, telephone, roads and so forth. However, this urbanization process was forced on the Bedouins. These towns were planned without taking into consideration the Bedouin lifestyle. The Bedouins were not consulted, and the employment infrastructure was neglected.¹ As a result, these towns were a huge failure in that they offered no employment opportunities for the inhabitants to replace their traditional livelihood or a lifestyle that could be maintained. Furthermore, the supply of infrastructure has remained limited and is remarkably inferior to that in similarly sized Jewish towns. These conditions have discouraged Bedouins living outside of these towns to relocate there. As of today, about half of the Bedouin population (more than 85,000 people) still lives in villages unrecognized by the State of Israel.

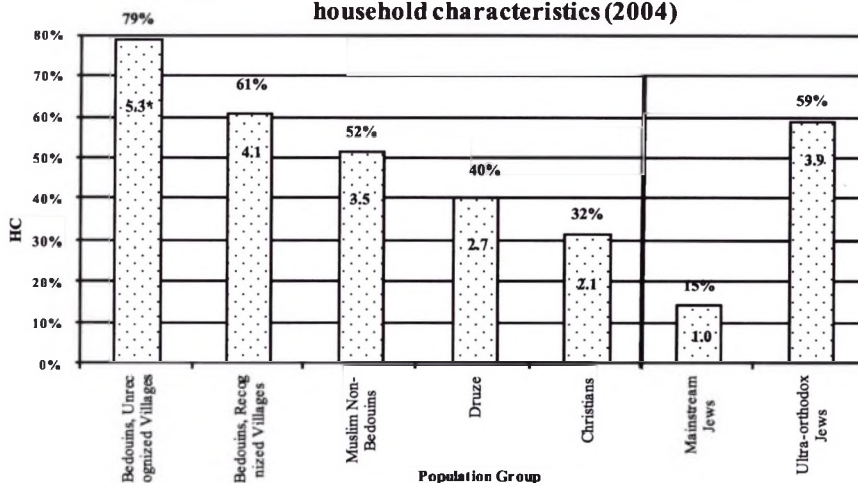
As unrecognized and therefore "illegal" localities, these villages lack public services of any kind. Moreover, government agencies refuse to allow Bedouin Arabs living in the unrecognized villages to build any permanent structures whatsoever. Any residence other than tents is considered illegal. In recent years several regional elementary and middle schools have, nevertheless, been opened in some of the unrecognized villages, requiring children from other localities to commute to schools that have long walking distances. The difficulty of commuting has resulted in high dropout rates among high school youth, especially girls. The recent establishment of two regional high schools in the unrecognized villages has served to significantly lower dropout rates.

In this paper we utilize a comprehensive socioeconomic survey of the Arab population in Israel carried out by the Galilee Society in 2004 (Galilee Society and Rikaz, 2005). This is the first thorough attempt to collect data on the Bedouin Arabs living in the unrecognized villages. The purpose of this paper is to discuss their economic status compared to that of other Arabs living in Israel. We discuss the effects of recent developments in education attainment on employment opportunities in the Bedouin villages. We then show how the lack of, or deficiency in, basic infrastructure is responsible for the low level of education, the lack of employment opportunities and therefore the higher poverty rate. Specifically, we describe the poverty profile of Arabs in Israel in 2004, focusing on the Bedouins in southern Israel; the progress in educational attainment in the Bedouin community over the past five decades, compared to those in other Arab towns, focusing on differences between recognized and unrecognized Bedouin villages; and the employment status of the Bedouins and its relation to educational attainment.

Poverty profile of Bedouin villages in southern Israel

In 2004, according to the half-median poverty line, the poverty incidence in the Arab community reached 52%, a large part of it chronic. As Figure 1 shows, poverty levels among the Bedouins in unrecognized villages reached 79%, the highest among the various population groups in Israel, followed by that of the Bedouins in the recognized villages (61%). The Bedouin Arabs in southern Israel were the poorest, when compared to other Arab communities in the center and the north of the country. Poverty incidences in the unrecognized and the recognized villages were respectively 5.3 and 4.1 times that among the mainstream (non-orthodox) Jewish population. Not only poverty incidence, but also poverty severity, as measured by the Sen Poverty index, was highest among the Bedouin Arabs. In the unrecognized villages, the Sen index was as high as seven times that among the mainstream Jewish population in 2004. Even though data on Bedouins in the unrecognized villages are available only for 2004, an analysis of data from the Israeli Central Bureau of Statistics suggests that the trend of increasing poverty among Arabs in Israel (from 1997 to 2006) was common for all Arabs in Israel, in the north as well as in the center and south. Therefore, we believe it is also true for the inhabitants of unrecognized villages, the less advantaged group. Furthermore, the Bedouin Arabs in the Negev were (together with ultra-orthodox Jews) the group most negatively affected by the 2003 cuts in child benefits, since they have the highest average number of children per household (Achdut, Cohen and Endweld, 2005, 2006; Gottlieb, 2007).

Figure 1: Percentage of households below the poverty line by household characteristics (2004)



*Figures inside the boxes are the ratios of the specific group Headcount Index to that of mainstream Jews.

The 2004 poverty profile of Arabs in Israel shows that household poverty incidences differ according to the demographic, geographic, socioeconomic, cultural and religious characteristics of the household. Table 1 shows that the poverty incidence is higher the larger the household size, the lower the schooling attainment of the household head and the lower the number of income earners per household. For example, more than 80% of Bedouin households in the unrecognized villages with a family size of at least five persons live in poverty, compared to about 45% among small households. At any family size, poverty incidence is the highest in the unrecognized villages compared to that among other Arab households, including Bedouin Arabs in recognized villages. Even though higher schooling of the household head lessens the likelihood of household poverty, 61% and 69% of households in the recognized and the unrecognized Bedouin villages, respectively, where the head has a high school diploma, nevertheless live in poverty. Moreover, poverty is prevalent not only among households with no wage earners, but even among households with two wage earners. About a third of the Arab households (38% in the unrecognized villages) with two wage earners live in poverty.

Table 1. Poverty profile of Arabs in Israel (% , Headcount Index), 2004

	Bedouins in Unrecognized Villages	Bedouins in Recognized Villages	Other Arabs
Household Size			
≤ 4	45.5	43.5	34.8
5-7	81.8	65.1	49.2
≥ 8	85.6	70.4	61.1
Household Head's Schooling			
None	79.8	50.0	58.3
Elementary school	77.7	70.0	50.4
High school	60.9	68.8	40.3
Higher education	48.3	30.0	22.2
Wage Earners Per Household			
0	91.9	93.2	70.2
1	60.6	64.3	48.6
2	37.5	20.7	27.8

Source: Based on Galilee Society and Rikaz (2005).

As all aforementioned household characteristics are mutually correlated, a multivariate analysis is needed to isolate the effects of these characteristics on poverty. For example, when Christian households have the lowest poverty rate, they also have the highest education attainment, the highest female participation rate in the labor market and the lowest family size among all Arabs in Israel. On the other hand, Bedouin households, where the poverty rate is the highest among all Arabs, are characterized by low education attainment, large family size and a very low female participation rate in the labor market. Therefore, it would be misleading to infer that poverty is determined by cultural characteristics. The differences in poverty incidence and severity are likely to be due to objective determinants, such as access to labor market and public infrastructures. Abu-Bader and Gottlieb (2008) used a multivariate logistic model to estimate the partial effects of a large set of variables related to household characteristics on the probability of a household to live in poverty. Those variables that were found to significantly affect that probability were household size, the education attainment and occupation of the household head, and the number of employees and quality of the basic infrastructure in the locality. Religious, cultural and geographical characteristics were found to be statistically non-significant after controlling for the other household characteristics. In the rest of this paper we describe in detail the evolution of education over the past five decades, the employment opportunities in the Bedouin-Arab villages and the involvement of the Bedouin Arabs in the Israeli labor market.

Education trends

Education is crucial for building the human capital necessary for the attainment of high paying jobs. Therefore, it is crucial to study the evolution of education attainments and employment opportunities and their interaction among the Bedouin Arabs when discussing the socioeconomic status of this population.

Figures 2 and 3 depict the evolution of educational attainments of Bedouin females and males, respectively, over the past five decades by comparing age groups. As can be seen from these figures, for any age group the distribution of schooling attainment differs between the two genders. Among women aged 45 and above, the percentage with twelve years of schooling is nil. At most, 5% of women in this age group managed to complete eight years of schooling. For women in the 35–44 age bracket, there is a moderate improvement over their older counterparts, with almost 11% having finished high school and 4.5% continuing on to a higher education and attaining a college or university degree. Of women aged 25–34, more than 11% attained a college or university degree.² Among females 15–18 years old, less than 3% did not obtain any kind of schooling. It follows that there has been an impressive change over the past five decades in the percentage of females attending school and pursuing a higher education. The availability of schools in the Bedouin

villages, especially high schools in recognized villages, and the awareness of Bedouin-Arab parents of how vital education is for their children as a means to achieve economic well-being seem to have contributed considerably to this change (see Abu-Saad et al., 1998).

Figure 2: Educational attainments of Bedouin females by age group (2004)

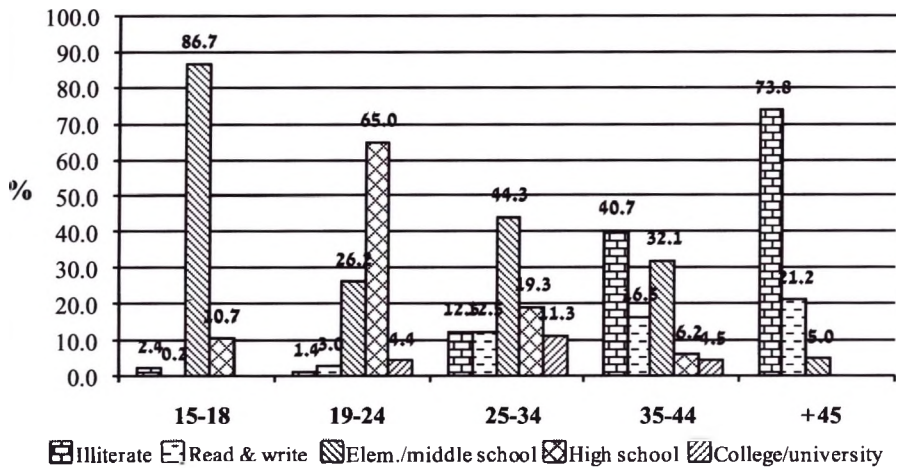
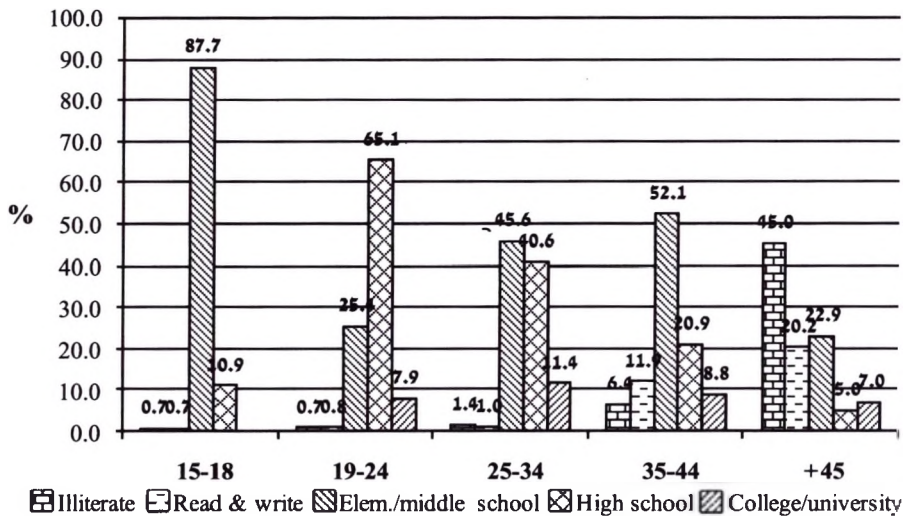


Figure 3: Educational attainments of Bedouin males by age group (2004)



With respect to Bedouin males, Figure 3 clearly shows that the percentage attaining any level of education has increased over time, particularly with respect to middle and high school. Among high school graduates in the 45+, 35–44 and 25–34 age groups, 58.3%, 29.6% and 21.9%, respectively, also earned a college or university degree.³ In comparison, 42.1% and 36.9% of females in the 35–44 and 25–34 age groups, respectively, earned a degree. These numbers show that the percentage of high school male graduates who pursue a higher education has decreased over time, whereas there was a drastic increase among females two decades ago, but the percentage has mildly decreased since then. The numbers also show that the gap between the percentages of degree holders among females and males is widening, with a larger proportion of women continuing on to a higher education.

Despite the impressive increase in schooling attainment, the data reveal that there is still a high percentage of youth who do not complete their formal schooling. Table 2 depicts dropout rates in 2004 among Bedouin Arabs in the unrecognized villages, the recognized villages and other Arab groups in the center and north of the country. A comparison of dropout rates for the 45 and over age group with those aged 20 and below indicates a substantial decrease, especially among females. The most drastic reduction occurred among females in the recognized villages.³ As already mentioned, among Bedouin females age 45 and over, none had more than eight years of schooling, and less than 5% actually completed eight years of schooling. In comparison, only 30% of females in the 18–20 age group from the recognized villages did not finish high school, and less than 15% did not complete ten years of schooling. Despite this drastic decrease in dropout rates from schools in the recognized villages, they are still very high compared to rates for non-Bedouin Arabs: the female high school dropout rate in the recognized villages is three times as high as that for other Arabs in Israel. Among Bedouin-Arab females in the unrecognized villages, 61% of 18–20 year-old females did not continue their high school education and 39% did not finish middle school. Obviously, the high dropout rates among females can be attributed somewhat to cultural restrictions on girls' education. However, it is more likely to be due to the lack of middle and high schools in their own villages or in a nearby Bedouin locality. This situation is exacerbated by the absence of an infrastructure of paved roads between the unrecognized villages and other villages in the area, which makes commuting to high schools located in recognized villages practically impossible.⁴

Table 2. Dropout rates among Arabs in Israel (%), 2004

Dropped Out Before Finishing X Years of Schooling	Christian	Druze	Muslim Non-Bedouins	Bedouins, Recognized Villages	Bedouins, Unrecognized Villages
Males age 45 and above					
X					
6	10.9	10.4	17.8	53.1	76.2
8	25.2	18.1	34.2	75.9	82.6
10	52.3	49.0	63.8	83.9	90.3
12	62.0	61.4	70.3	86.6	91.9
Males age 20 and below					
6	0.0	1.5	0.7	0.0	2.5
8	0.9	2.1	2.1	3.1	5.2
10	5.2	2.9	9.7	4.6	19.4
12	11.1	6.7	28.3	30.9	45.9
Females age 45 and above					
6	23.2	40.8	44.4	87.5	98.0
8	34.8	57.6	57.0	95.8	98.6
10	56.6	87.4	79.0	100.0	100.0
12	68.9	93.0	84.2	100.0	100.0
Females age 20 and below					
6	2.0	1.8	0.5	2.9	4.0
8	2.6	2.2	1.3	6.9	14.2
10	3.6	5.6	4.1	14.5	39.1
12	10.6	14.1	9.7	30.1	61.3

Note: In each cell, the figures are relative to the relevant age group. For example, 14.2% of females in the unrecognized villages in the 14–20 age-group dropped out before finishing eight years of schooling, and 61.3% in the 18–20 age group dropped out before finishing twelve years of schooling.

Source: Based on Galilee Society and Rikaz (2005).

Abu-Bader and Gottlieb (2008) found that more than 75% of the population in the unrecognized villages live more than one kilometer from an elementary school and more than 63% live more than five kilometers away. This situation is exacerbated by the absence of access to public transportation. About 80% of the population in the unrecognized villages lives more than five kilometers from the nearest public transportation stop. They also found that the gap in dropout rates between recognized and unrecognized villages is entirely attributable to the lack of basic infrastructures in the latter.

To sum up, the absence of basic infrastructure in the unrecognized villages prevents more than half of Bedouin females from finishing high school and therefore from obtaining a higher education and participating in the labor force. This in turn has a long-term effect on household income and household poverty status. In the next section we discuss the relationship between education and employment in the Bedouin community, paying special attention to the importance of education for increasing female participation in the labor force.

Employment trends

Table 3 presents labor force participation rates and unemployment rates by Arab community group and gender for 2004. Participation rate in the labor force among Bedouin Arabs in southern Israel is 32%, compared to 47% for Arabs in the center, and 44% for Arabs in the north. The low rate among the general Arab population in Israel can be attributed largely to female participation rates. The highest female participation rate is in the center (26%); the lowest is among Bedouin-Arab females in the unrecognized villages (less than 7%). In the recognized villages, the rate is 10%. However, while the labor force participation rate among Bedouin females is particularly low, among Bedouin males it is very close to that for the general Israeli population (60.6%; see Israeli Central Bureau of Statistics for 2004): it is 55% in the recognized villages and 57% in the unrecognized villages. The data also shows that, whereas unemployment rates among Arabs in the north and center are close to those among the general Israeli population (9.5%; see Israeli Central Bureau of Statistics for 2004), unemployment rates are 22% among Bedouin males, 21% among females in the unrecognized villages and 13% among females in the recognized villages.

Table 3. Indicators of the Arab labor market in Israel (%), 2004

	North			Center		South		
	All Arabs in North	Muslims	Christian	Druze	Muslims	All Bedouins in South (Muslims)	Unrecognized Villages (Muslims)	Recognized Villages (Muslims)
Males and Females								
Labor force	44.2	43.9	49.7	40.5	47.1	32.2	33.4	31.4
Employment	39.1	38.8	44.2	35.4	44.4	25.4	25.6	25.2
Unemployment	11.6	11.6	11.0	12.6	5.9	21.1	23.4	19.6
Males								
Labor force	63.4	64.5	62.5	57.3	66.9	55.5	56.5	54.5
Employment	57.1	58.1	56.1	52.3	63.6	43.2	43.2	43.1
Unemployment	9.9	10.0	10.3	8.7	4.9	22.0	23.6	20.9
Females								
Labor force	24.6	22.4	38.2	23.1	25.9	8.8	6.8	10.0
Employment	20.6	18.7	33.6	17.9	23.7	7.4	5.4	8.7
Unemployment	16.2	16.4	11.9	22.5	8.5	15.4	21.2	13.1

Note: Labor force = labor force participation rate; Employment = employment rate, calculated as percentage of the population of working age (15 years and older); Unemployment = unemployment rate.

Source: Abu-Bader and Gottlieb (2008:Table 8).

Abu-Bader and Gottlieb (2008) found that the major factors determining Bedouin female participation rates in the labor market include schooling, the number of small children at home, marital status, age and the level of basic infrastructure in the locality. They also found that the higher the education level of the female, the higher the likelihood of her participation in the labor force, but only for females with at least 12 years of schooling. The likelihood of a female with middle or elementary schooling to participate in the labor force is not significantly different from that of a female with no schooling at all. This finding is related to the absence of diverse job opportunities in the Bedouin localities and the fact that the only available jobs are ones that require higher education degrees. The absence of nearby daycare centers for children could also be a serious handicap.

Table 4 shows the distribution of work locations of Bedouin-Arab employees from the recognized and the unrecognized villages in 2004. Among all employed Bedouin-Arab women, 73% work inside their own village and 16% work in a nearby Bedouin-Arab village. The distribution differs between recognized and unrecognized villages: whereas 82% of the employed women in the recognized villages work inside their village, only 44% of employed women from the

unrecognized villages work in their own villages and the rest work in a nearby recognized village.

Table 4. Work location of Bedouins by gender (%), 2004

Work Location	All Bedouins			Recognized Villages			Unrecognized Villages		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Home	1.2	2.6	1.4	1.3	0.0	1.0	1.0	10.6	1.9
Same locality	29.0	72.5	35.3	38.0	81.7	45.8	15.6	43.9	18.2
Arab locality, same region	10.5	16.0	11.3	5.4	7.4	5.8	17.9	42.5	20.2
Jewish locality, same region	45.4	6.2	49.2	40.2	7.2	34.4	53.0	3.0	48.3
Arab locality, different region	1.7	0.0	1.94	2.9	0.0	2.4	0.0	0.0	0.0
Jewish locality, different region	10.3	0.0	11.5	9.7	3.7	8.7	11.2	0.0	10.1

Source: Based on Galilee Society and Rikaz (2005).

The majority of employed Bedouin-Arab women hold higher degrees from either a college or a university, which allows them to be employed in education and social services. As Table 5 shows, the probability that a higher educated female will be employed as a teacher is almost 100%.

Table 5. Distribution of jobs by gender and education degrees (%)

	All Employees	Employees with College Degree	Employees with Univ. Degree
Males			
Academic	18.9	54.5	62.9
Of those, middle or high school teachers	44.3	88.9	81.8
Technical and freelance	6.5	33.3	31.4
Of those, elementary school teachers	77.8	72.7	100.0
Managerial	2.6	0.0	2.9
Sales and services	8.9	3.0	2.9
Manufacturing, construction and other professional jobs	40.7	9.2	0.0
Non-professional	15.3	0.0	0.0
Females			
Academic	15.3	9.1	42.9
Of those, middle or high school teachers	88.9	100.0	100.0
Technical and freelance	66.1	86.4	57.1
Of those, kindergarten/elem. school teachers	100.0	94.7	100.0
Managerial	0.0	0.0	0.0
Sales and services	5.1	4.5	0.0
Manufacturing, construction and other professional jobs	3.4	0.0	0.0
Non-professional	1.7	0.0	0.0

Source: Based on Galilee Society and Rikaz (2005).

In contrast to women, most Bedouin-Arab men work in the Jewish labor market. In 2004, about 55% of the employed Bedouin-Arab males were working in a Jewish town, mostly in the same region where they live (Table 4). Among these, 80.3% were employed in the low-tech sector with low-paying jobs: 21% worked in transportation, 9% in construction services and 22% in other non-professional jobs (the remainder worked in low-paying professional jobs). Less than 40% of employed men work in the same village where they live or in a nearby Bedouin-Arab village. As in the case of females, most locally employed males work in the education sector, while a small fraction of them work in jobs provided by local councils.

Among educated males, 83% of university degree holders and 73% of college degree holders work in the education sector (calculated as a weighted average of elementary, middle and high school teachers; see Table 5). Therefore, teaching can be thought of as a last resort for educated Arabs in general and Bedouin Arabs in

particular. This is because they are highly segregated from the Jewish labor market both geographically and occupationally. The consequences of this situation are that future generations of young people will not pursue a higher education. In turn, this will thwart the cultural changes that the Bedouin society needs to emerge from the vicious circle of poverty and to integrate into Israel's modern economy.

Concluding remarks

We have described the relationship between educational attainment, employment and poverty among Bedouin Arabs in the recognized and unrecognized villages in southern Israel. In doing so, we utilized a survey that, for the first time, offers comprehensive socioeconomic data on the Bedouins living in the unrecognized villages. The data reveal that, over the past five decades, there has been impressive progress in formal education attainment, especially among females in the recognized villages, but lesser progress in the unrecognized villages. However, these achievements do not translate into a better socioeconomic status of their inhabitants, due to the lack of employment opportunities and basic infrastructure. The urbanization process initiated by the Israeli government in the late 1960s did not bring the promised improvement in the livelihood of Bedouin Arabs. The seven recognized villages are ranked lowest in the socioeconomic ranking of the Israeli Central Bureau of Statistics. Poverty incidence among Bedouins is the highest in Israel, with 61% of the population in the recognized villages and 79% of those in unrecognized villages living in poverty in 2004. Unless serious measures are taken by the Israeli government to improve access to infrastructure, to attract private investment to Bedouin towns, to improve the quality of education and to reduce job discrimination, especially in the public sector for Arab academics, the vicious cycle of poverty will continue.

NOTES

¹ Swirsky and Hasson (2005) describe Israel's government policies toward the Bedouin Arabs since 1948 in detail.

² The majority of females in this age group graduated from a teachers college. Only in the past decade have a notable number of Bedouin females started pursuing higher education in universities.

³ Most individuals in the 45+ age group were living in unrecognized villages at the time of their formal schooling, since the first planned town was established only in 1967. Thus, the schooling of individuals in this age group is similar. Any difference in schooling is due to current educational attainments.

⁴ See Abu-Rabia-Queder (2006) for further discussion of the reasons for the high dropout rate among female Bedouins.

REFERENCES

- Abu-Bader, Suleiman, and Gottlieb, Daniel. (2008). *Poverty, Education and Employment in Arab Bedouin Society: A Comparative Retrospective*. Jerusalem: Van Leer Institute, Economics and Society Program (Hebrew).
- Abu-Rabia-Queder, Sarab (2006). "Between tradition and modernization: Understanding the problem of female Bedouin dropouts." *British Journal of Sociology of Education*, 27,1:3–14.
- Abu-Saad, Ismael, Abu Saad, Kathleen, Lewando-Hundt, Gillian, Forman, Michele R., Belmaker, Ilana, Berendes, Heinz W., and Chang, David. (1998). "Bedouin Arab mothers' aspirations for their children's education in the context of radical social change." *International Journal of Educational Development*, 18,4:347–359.
- Achdut, Lea, Cohen, Rafaela, and Endweld, Miri. (2005). *Indicators of Poverty and Income Inequality, 2005*. Jerusalem: National Insurance Institute (Hebrew).
- . (2006). *Indicators of Poverty and Income Inequality, 2006*. Jerusalem: National Insurance Institute (Hebrew).
- Asali, Muhammad. (2006). "Why do Arabs earn less than Jews in Israel?" Jerusalem: Maurice Falk Institute for Economic Research in Israel, Discussion Paper No. 06.03.
- Falah, Ghazi. (1989). "Israeli state policy toward Bedouin sedentarization in the Negev." *Journal of Palestine Studies*, 18,2:71–79.
- Galilee Society and Rikaz. (2005). *Socioeconomic Survey of Palestinians in Israel 2004* (data provided to us electronically).
- Gera, Ramsis, and Cohen, Rafaela. (2001). "Poverty among Arabs in Israel and sources of inequality between Arabs and Jews." *Economic Quarterly*, 48,4:544–571 (Hebrew).
- Gottlieb, Daniel. (2007). "Poverty and labor market behavior in the ultra-orthodox population in Israel." <http://ideas.repec.org/p/prs/mprapa/4024.html>.
- Klinov, Ruth. (1999). "Changes in wage structure. Wage gaps in and between sectors: Israel 1970–1997." Jerusalem: Institute of Economic Research, General Federation of Labor in Israel, Discussion Paper No. 4 (Hebrew).
- Lewin-Epstein, Noah, Al-Haj, Majid, and Moshe, Semyonov (1994). *The Arab in Israel in the Labor Market*. Jerusalem: Floersheimer Institute for Policy Studies (Hebrew).
- Swirski, Shlomo, and Hasson, Yael (2005). *Invisible Citizens: Israel Government Policy Toward the Negev Bedouins*. Tel Aviv: Adva Center Information on Equality and Social Justice in Israel (Hebrew).