

Were Jews in Interwar Poland More Educated?*

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February 28, 2014

1 Introduction

Research suggests that Jews have tended to be more educated than non-Jews.¹ We confirm this finding for the case of interwar Poland, but show that it is driven by a composition effect. In particular, most Jews lived in cities and most non-Jews lived in rural areas, and people in cities were more educated than people in villages regardless of their religion. Theories of why Jews were more educated should explain our finding that while Jews were more educated than non-Jews in rural Poland, they were *less* educated than non-Jews in urban Poland.

*We thank Scott Kamino, Joel Mokyr, Santiago Perez, Lukasz Pomorski, Yannay Spitzer and David Yang for helpful comments and discussions.

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¹A number of written sources suggest that Jews were more educated than non-Jews. One view is that the drive to education was related to the restrictions prohibiting Jews to own land. For example, Kuznetz (1960) points out that these restrictions—together with fear of expulsion from areas where they lived, justified by the experiences of such expulsions in the past—led Jews to focus on occupations and skills that were portable, and to invest in their human capital more than in the production capital. As a result, they were more present in trade, finance, and medicine. In order to perform such occupations, Jews needed to achieve above-average education. Moreover, some documented behaviors of contemporary gentiles (e.g. Tomaszewski 1985) indicate that they believed that Jews obtained on average more education than the general population. Such arguments led Polish nationalistic movement to frequently advocate the introduction of *numerus clausus*, which would limit the percentage of Jewish students in universities to their percentage in the total population. The feeling of those who proposed the measure was that *numerus clausus* would bind in most universities, because they felt that Jews participated in higher education more than the general population did. (*Numerus clausus* was never officially legislated, but after 1937, when the nationalist parties held power in the government, some universities adopted *numerus clausus* individually (Hundert 2008).) Similarly, Botticini and Eckstein (2005, 2007, 2013) show that Jews in the pre-modern period were more literate than the general population because every Jewish male was expected to read from the Torah, and to teach his son to read the Torah.

2 Data

We use data collected in two censuses in interwar Poland, in 1921 and 1931.² The published information includes only aggregated data; unfortunately, the census lists with the individual information did not survive World War II. We also use the updates to the censuses published in the annuals of the Main Statistics Office (*Rocznik statystyczny*) for 1920s and abbreviated annuals (*Mały rocznik statystyczny*) for 1930s. The censuses included the whole population, up to some local imperfections.³ The data are believed to be fairly representative of the population, although the 1921 census has a number of important shortcomings.⁴ The questions in the censuses were open ended. Important for our purposes is that the Polish population census allows us to identify Jews. “Religion,” according to the instructions, was the self-declared religious institution to which the person formally belonged. The 1921 census asked about nationality and religion, while the 1931 census asked about mother language and religion. The data on literacy were collected based on self-declared answer to the questions “can you read?” and “can you write?” in any language.⁵ The illiteracy and education data were reported in aggregate and by religious groups.

²Before 1795, Poland had been a multi-cultural country for centuries (Davies 1984). Deteriorating political and military situation in Poland allowed the Kingdom of Prussia, the Russian Empire, and Habsburg Austria to gradually take over Poland’s territories. In 1795, Poland disappeared as an independent political entity. Poland was reestablished as a sovereign state in November 1918, after World War I. Its borders, however, were still liquid until 1923.

³*Statystyka Polski* (1938), Dłuska and Holzer (1958).

⁴The census in 1921 took place before the borders of Poland were fully established. Therefore, it did not take into account the Upper Silesia and Vilno regions (Dłuska and Holzer 1958, Mendelsohn 1987). Which parts of Upper Silesia belonged to Poland or Germany was decided in a plebiscite which took place in 1921. Because by the time of the 1921 census it was not yet clear what parts of the regions would belong to Poland, this territory was not included in the census. Vilno region was not included in the census because the border with Lithuania was not established until 1923. From the point of view of our research the exclusion of Vilno region is relatively more important, as this region was in the east part of Poland, densely populated by minorities (Rothschild 1974). Moreover, the 1921 census was conducted soon after the war between Poland and the Soviet Union was over. The post-war migrations in the east of Poland were likely still taking place. Thus, the census captured some state of transition, rather than the final structure of the population in Poland at the beginning of the interwar period.

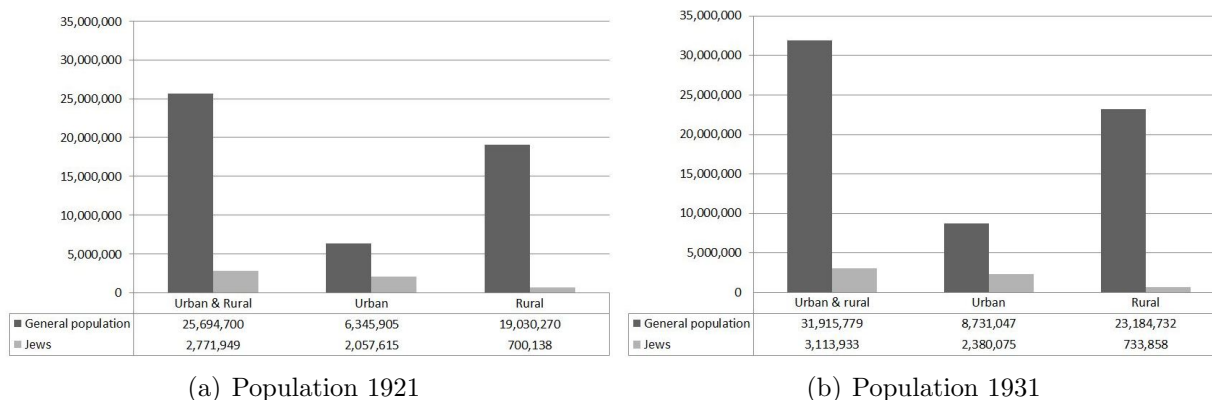
⁵*Statystyka Polski* (1938), Bronsztejn (1963).

3 Findings

3.1 Most Poles lived in rural areas and most Jews lived in urban areas

Figure 1 shows that most Poles lived in rural areas and most Jews lived in urban areas. Specifically, in 1921, 74% of the Jewish minority lived in urban areas. They accounted for 32.4% of the urban population, despite the fact that they only constituted 10.8% of the total population in Poland.^{6,7} In the rural areas, where the overwhelming majority of the total population (74%) resided, Jews constituted only 3.7%. In 1931 Jews constituted 9.8% of the total population.⁸ They accounted for 27.3% of the total urban population, and only for 3.2% of the rural population.

Figure 1. Most of the overall Polish population lived in rural areas, while Jews mostly lived in urban areas.



Notes: The data sources are the censuses of 1921 and 1931.

⁶The census counted 25,694,700 people as the total population. 2,771,949 of them declared “Mosaic faith,” which made Jews a 10.8% minority. Jews were the second largest minority in Poland (after Belorussians). About a third of the population within the Polish borders belonged to an ethnic minority. Belorussians and Ukrainians (the third largest minority in Poland) were concentrated in the eastern part of the country, while Germans in the western.

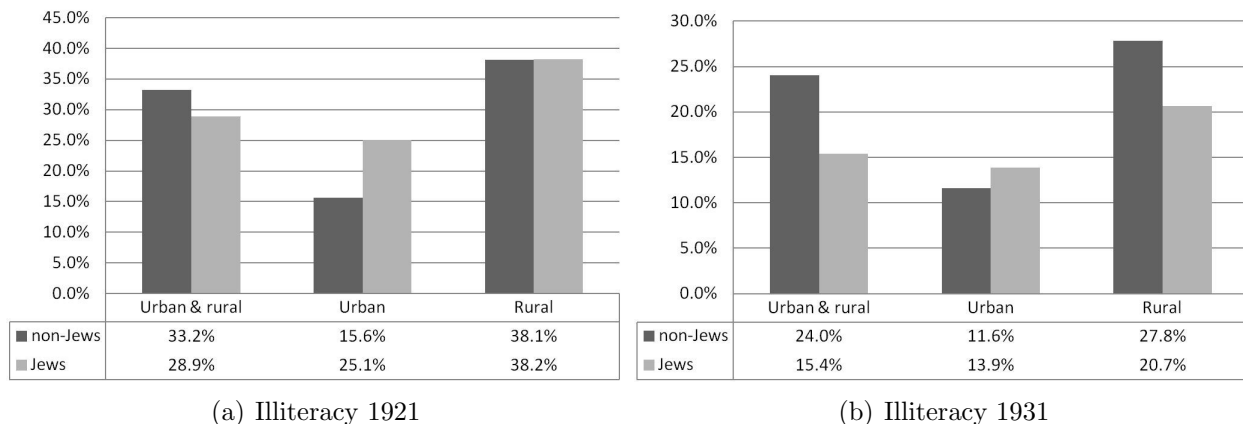
⁷Unlike other minorities, Jews were present throughout Poland, but were more present in towns and more concentrated in the central and eastern areas.

⁸By 1931, the Jewish population grew to 3,113,933. But it had grown slower than the total population, which reached 31,915,779.

3.2 Jews were more literate than non-Jews overall, but less literate in urban areas

In the 1921 census we consider as “illiterate” people 10 years or older who declared “could not read.” The 1931 census did not include a comparable category, so we consider as illiterate people 10 years or older who declared “could neither read nor write”.^{9,10} On average, we find that Jews were more literate than non-Jews. In 1921, while 33.2% of non-Jews were illiterate, only 28.86% Jews fell into this category. The difference was even starker in 1931—24% of non-Jews were illiterate compared to 15.4% among Jews. However, Figure 2 reveals that in cities Jews were less literate than the general population, while in rural areas Jews had similar (in 1921) or lower (in 1931) illiteracy rates.^{11,12}

Figure 2. In aggregate (and in rural areas) Jews had a lower illiteracy rate than non-Jews. In urban areas Jews had a higher illiteracy rate than non-Jews.



Notes: The figure presents the illiteracy rates of Jews and non-Jews for people aged 10 and older. The data sources are the censuses of 1921 and 1931.

Since during both censuses about 3/4 of Jews resided in urban areas and 3/4 of the total population lived in rural areas (see Figure 1), a general comparison without distinction into urban and rural areas compares mostly urban Jews to mostly rural non-Jews. Population

⁹While the 1921 census had only one illiteracy category (“could not read”), the 1931 census distinguished between “could not write” and “could neither read nor write.” The qualitative results of our analysis are the same if we consider the category “could not write” for 1931 census.

¹⁰Because the two censuses cover different age groups, we cannot compare the illiteracy rates across censuses; we analyze only the differences within each census.

¹¹In the analysis that follows we compare education levels and illiteracy rates between Jews and non-Jews, where non-Jews are calculated by subtracting Jews from general population.

¹²Both censuses break down the total illiteracy data into two groups: rural and urban areas. In addition, the 1931 census further breaks down urban data into towns above and below 20,000 inhabitants. The finding that Jews are less literate holds in both smaller and bigger towns.

in urban areas was significantly more literate than that in rural areas, for both the Jewish minority and the non-Jewish population. Urban Jews—even though less literate than urban non-Jews—are still more literate than rural non-Jews. Thus, in the aggregate statistics, Jews are more literate than non-Jews.

Appendix Tables A1 and A2 show that these patterns are overall similar when considering different age groups, and for both men and women.¹³ Interestingly, however, in rural areas in 1921, Jewish men aged 40+ were less illiterate than their non-Jewish peers, while younger Jewish men were more illiterate. In contrast, Jewish women aged 30+ were more illiterate, while younger Jewish women were less illiterate than younger non-Jewish women.¹⁴

3.3 Jews attained higher levels of education than non-Jews, but lower levels in urban areas

The 1921 census reported the highest obtained level of education: primary, home-schooling, secondary, occupational and post-secondary education.¹⁵ Attending primary or home schooling was compulsory in all areas that were included in Poland in 1921.¹⁶ The remaining categories—occupational, secondary, and post-secondary education—were post-primary education levels.¹⁷

Nationwide, 4.2% of Poles aged 30 and older achieved some level of post-primary education, as compared with 5.9% of Jews. Figure 3 suggests that this education advantage is again a result of a composition effect: Jews, unlike non-Jews, predominantly lived in urban areas,

¹³Illiteracy rates were higher for older cohorts, likely because of increased access and improved attitudes towards education. Given this correlation between age and illiteracy rates, we checked whether the differences in averages between the Jewish and non-Jewish population results from a difference in the age distribution of Jews and non-Jews. If, for example, urban Jews were more likely to live longer than urban non-Jews, then the Jewish illiteracy rates on average would be higher simply due to larger proportion of older, more illiterate Jews. However, Appendix Table A3 shows that the age distributions of the Jewish and non-Jewish populations were similar, in both urban and rural areas, so the difference in average illiteracy rates cannot simply be attributed to a difference in age distribution.

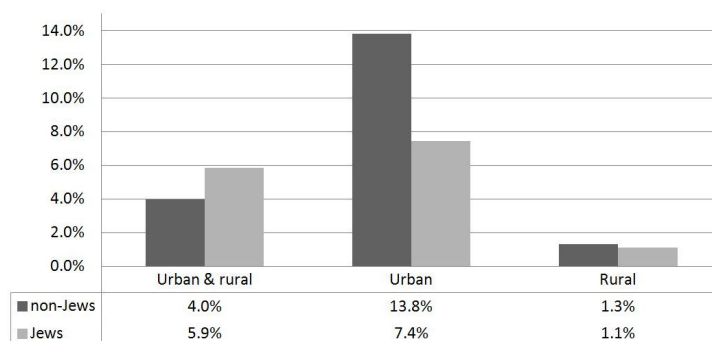
¹⁴In both censuses women have higher illiteracy rates than men, both among Jews and non-Jews, in both urban and rural areas. The exception here is that young Jewish women aged 10-19 in 1921, and 10-24 in 1931 are *less illiterate* than Jewish males in the same age groups.

¹⁵Unfortunately, data on education level was not reported in the 1931 census.

¹⁶However, this obligation was not thoroughly executed and there were still children who did not get any level of education (Landau and Tomaszewski 1971).

¹⁷The census classified as *occupational education* such types of post-primary education that prepare a student to practice a specific occupation without requiring him to seek post secondary education. Examples of occupational education as classified in 1921 census include vocational training, midwife certification, and accountant certification. In contrast, *secondary* schools provided a general education mainly preparing a student for the university. *Post-secondary education* means university diplomas, at master's or doctorate level (and above). Master's was the lowest degree achieved at a university, typically after five years of studies. There was no Bachelor's degree.

Figure 3. Jews were more likely to obtain post-primary education than non-Jews on average, but in urban areas they were less likely to obtain post-primary education.



Notes: The figure presents the post-primary education of people aged 30 and older. The data source is the census of 1921.

and the urban population was generally more educated than the rural population regardless of religion. In urban areas, Jews were in fact less likely to acquire post-primary education. In rural areas, Jews and non-Jews were almost equally likely to acquire post-primary education. Table 1 shows that these results hold for each of the post-primary education categories: secondary, occupational and post-secondary education.

The numbers reported in Figure 3 and Table 1 refer to people who are 30 or older, as they presumably already completed their education. Appendix Table A4 shows that these results hold for other age groups, and also for men and women separately: in urban areas Jews were less likely to achieve post-primary education. The one exception is women aged 20–29 in category “post-secondary education.” In this age group Jewish women appear more likely to obtain university diploma than non-Jewish women.

Table 1. Post-primary education of Jews and non-Jews, age group 30+, 1921.

	Post-Primary total			Occupational			Secondary			Post-Secondary		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
Urban & Rural												
non-Jews	4.0%	5.2%	2.8%	0.6%	1.1%	0.2%	2.6%	2.7%	2.5%	0.7%	1.4%	0.1%
Jews	5.9%	7.2%	4.6%	0.6%	1.1%	0.2%	4.3%	4.5%	4.2%	0.9%	1.6%	0.2%
Urban												
non-Jews	13.8%	18.3%	10.1%	1.9%	3.5%	0.6%	9.2%	9.5%	8.9%	2.7%	5.3%	0.5%
Jews	7.4%	9.1%	5.9%	0.8%	1.3%	0.3%	5.5%	5.7%	5.4%	1.1%	2.1%	0.3%
Rural												
non-Jews	1.3%	1.9%	0.8%	0.3%	0.5%	0.1%	0.8%	1.0%	0.7%	0.2%	0.4%	0.03%
Jews	1.1%	1.7%	0.6%	0.3%	0.5%	0.0%	0.7%	0.8%	0.5%	0.2%	0.4%	0.04%

Notes: The table presents the post-primary education of people aged 30 or more. The data source is the 1921 Polish population census. The first three columns present the percentage of people with post-primary education. The next 9 columns break down this percentage to the type of post-primary education: occupational (columns 4-6), secondary (columns 7-9), or post-secondary (columns 10-12) education. These post-primary education types are defined in section 3.3 in the text.

In rural areas the levels of post-primary education were in general low, and the differences between Jewish and non-Jewish population were small and varied across age-gender-category group. However a general pattern is visible: Jews appear a bit more likely than non-Jews to obtain a given level of post-primary education in older age groups, while they are less likely to do so in younger age groups.

4 Conclusions

We conclude that the literacy and education advantage of Jews in interwar Poland reflect a simple composition effect. Jews tended to live in urban areas, and urban people tended to be more educated than rural people regardless of their religion. When comparing Jews to non-Jews in urban places, there is no longer any Jewish education advantage and Jews in fact appeared less educated than the urban non-Jewish population. This paper does not explain why there was a Jewish education advantage in rural areas and education disadvantage in urban areas. The higher tendency of Jews to live in urban areas might in itself reflect a greater desire to acquire education, or it might reflect a constraint that prevented more Jews to live in urban areas. These questions remain open.

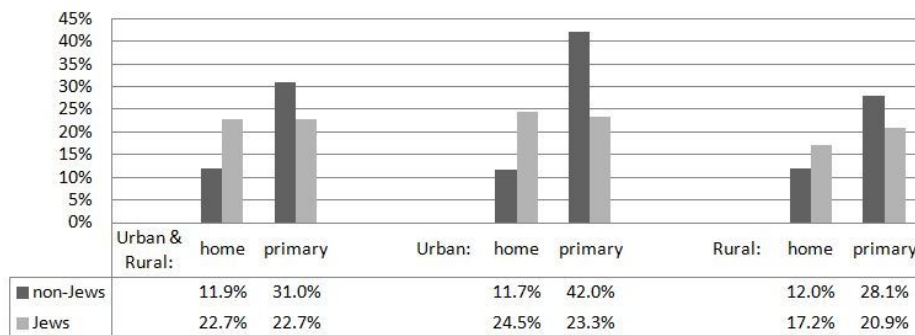
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Appendix A: Education Levels—Compulsory Education

The 1921 census reported five levels of education: primary, home-schooling, secondary, occupational and higher education. At the turn of the 20th century, either attending primary schooling or home schooling was compulsory in all areas that were included in Poland in 1921.¹⁸ In this appendix, we report differences in the compulsory education levels. Primary education includes state-provided primary schooling system. The length of the education in state primary schools differed depending on time and geography, and could be between 4 and 7 grades. This is because people in the considered age group were mostly educated before World War I, and thus educated in the systems of Prussia, Russia, or Austro-Hungarian Empire. Those differences are not marked in the census. All primary schools are considered in the same category. A significant fraction of population obtained all its education at home, which is reported in the census as *home schooling*. It is hard to determine the level of home schooling, but it was likely considered equivalent to primary schools in the level of instruction. Jews would often prefer home schooling over state schools, because state-schools typically required attendance on Saturdays. Moreover, Jewish *heders* (traditional Jewish community schools) were counted as home-schooling, since they were not part of the state-provided primary schooling system. Indeed, we see in the census that more Jews in the analyzed age group were home-schooled (22.7%) than the overall population (13.1%). State-provided primary schools were attended more often by the overall population (30.1%) than by Jews (22.7%). When analyzed separately for rural and urban areas, the participation rates in state-provided primary schools or home schooling are very similar (see Figure A1).

Figure A1. Jews were more often home schooled while general population more often attended state-provided primary schools.



Notes: The figure presents compulsory levels of education (home schooling and state-provided primary education) of people aged 30 and older. The source is the Polish 1921 population census.

¹⁸Keep in mind, however, that this obligation was not thoroughly executed and there were still children who did not get any level of education (Landau and Tomaszewski 1971).

Appendix B: Additional breakdowns of illiteracy and education by gender and age

Table A1. Illiteracy rates of Jews and non-Jews, 1921.

	non-Jews			Jews			Jewish literacy advantage			Men literacy advantage	
	Total	Men	Women	Total	Men	Women	Total	Men	Women	non-Jews	Jews
Urban & Rural											
10--14	30.29%	29.92%	30.68%	24.55%	26.94%	22.21%	5.75%	2.98%	8.47%	0.76%	-4.73%
15--19	24.41%	22.71%	25.93%	20.31%	20.85%	19.86%	4.10%	1.86%	6.07%	3.21%	-0.99%
20--29	24.20%	20.01%	27.96%	20.74%	18.67%	22.18%	3.46%	1.34%	5.78%	7.95%	3.51%
30--39	31.93%	25.68%	37.24%	27.45%	21.77%	32.53%	4.48%	3.91%	4.71%	11.55%	10.75%
40--49	39.20%	33.68%	44.27%	33.84%	26.06%	40.82%	5.36%	7.62%	3.45%	10.59%	14.76%
50--59	47.34%	43.09%	51.31%	40.44%	31.20%	49.55%	6.89%	11.89%	1.76%	8.21%	18.35%
60+	54.71%	52.15%	57.09%	49.98%	40.62%	59.15%	4.73%	11.53%	-2.06%	4.94%	18.53%
unknown	27.43%	25.16%	29.27%	26.64%	23.89%	28.84%	0.79%	1.27%	0.43%	4.11%	4.95%
10+	33.23%	29.95%	36.37%	28.86%	25.23%	31.00%	4.37%	4.73%	5.37%	6.42%	5.77%
15+	33.86%	29.96%	37.52%	29.77%	24.84%	32.72%	4.09%	5.12%	4.79%	7.55%	7.89%
20+	36.06%	31.65%	40.22%	32.05%	25.80%	35.85%	4.01%	5.85%	4.38%	8.58%	10.05%
20-59	36.10%	31.67%	40.27%	29.43%	23.42%	32.71%	6.66%	8.26%	7.56%	8.60%	9.29%
Urban											
10--14	9.58%	9.51%	9.64%	20.68%	23.01%	18.40%	-11.10%	-13.50%	-8.76%	0.13%	-4.61%
15--19	8.35%	7.72%	8.91%	17.66%	17.78%	17.57%	-9.31%	-10.05%	-8.65%	1.19%	-0.21%
20--29	10.01%	7.98%	11.36%	18.27%	15.75%	19.83%	-8.26%	-7.77%	-8.48%	3.38%	4.08%
30--39	14.90%	11.22%	18.02%	24.33%	18.99%	29.10%	-9.43%	-7.78%	-11.08%	6.80%	10.11%
40--49	20.59%	16.13%	24.58%	30.38%	22.93%	37.10%	-9.79%	-6.81%	-12.51%	8.45%	14.16%
50--59	27.84%	23.14%	31.80%	36.68%	27.57%	45.55%	-8.84%	-4.43%	-13.75%	8.66%	17.98%
60+	32.89%	29.07%	35.56%	46.24%	36.47%	55.40%	-13.34%	-7.40%	-19.83%	6.49%	18.92%
unknown	14.51%	12.52%	16.16%	24.95%	22.10%	27.20%	-10.44%	-9.58%	-11.05%	3.63%	5.10%
10+	15.62%	13.01%	17.77%	25.06%	21.88%	27.73%	-9.44%	-8.86%	-9.96%	4.76%	5.85%
15+	16.70%	13.72%	19.07%	25.96%	21.62%	29.50%	-9.26%	-7.90%	-10.43%	5.36%	7.88%
20+	18.43%	15.06%	21.04%	27.96%	22.55%	32.34%	-9.53%	-7.49%	-11.30%	5.98%	9.79%
20-59	18.46%	15.08%	21.08%	25.43%	20.44%	29.40%	-6.97%	-5.36%	-8.32%	6.00%	8.96%
Rural											
10--14	34.42%	33.92%	34.93%	35.20%	37.60%	32.80%	-0.78%	-3.68%	2.13%	1.00%	-4.81%
15--19	28.05%	26.19%	29.69%	28.05%	29.62%	26.68%	0.00%	-3.43%	3.01%	3.50%	-2.94%
20--29	29.23%	24.75%	32.73%	28.47%	25.65%	30.56%	0.76%	-0.91%	2.17%	7.98%	4.91%
30--39	37.17%	30.20%	43.06%	37.99%	31.18%	44.08%	-0.82%	-0.98%	-1.02%	12.86%	12.90%
40--49	44.35%	38.47%	49.77%	44.73%	36.00%	52.48%	-0.38%	2.46%	-2.70%	11.30%	16.47%
50--59	52.09%	47.65%	56.36%	51.09%	41.24%	61.12%	1.01%	6.41%	-4.76%	8.71%	19.88%
60+	59.41%	56.26%	62.53%	59.19%	50.09%	69.16%	0.22%	6.18%	-6.64%	6.26%	19.08%
unknown	35.78%	33.54%	37.56%	37.53%	34.83%	39.91%	-1.75%	-1.28%	-2.34%	4.02%	5.08%
10+	38.10%	34.72%	41.15%	38.22%	34.96%	41.16%	-0.12%	-0.23%	-0.02%	6.43%	6.21%
15+	38.94%	34.92%	42.47%	38.91%	34.31%	42.98%	0.03%	0.61%	-0.51%	7.55%	8.67%
20+	41.63%	37.09%	45.59%	41.67%	35.48%	47.18%	-0.05%	1.61%	-1.58%	8.51%	11.70%
20-59	41.65%	37.10%	45.62%	38.52%	32.49%	43.68%	3.13%	4.61%	1.95%	8.52%	11.18%

Notes: The table presents the illiteracy rates of Jews and non-Jews in various ages. The data source is the 1921 Polish population census. "Jewish literacy advantage" is defined as the illiteracy rate of non-Jews minus the illiteracy rate of Jews. "Men literacy advantage" is defined as the illiteracy rate of women minus the illiteracy rate of men.

Table A2. Illiteracy rates of Jews and non-Jews, 1931.

	non-Jews			Jews			Jewish literacy advantage			Men literacy advantage		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	non-Jews	Jews	
Urban & Rural												
10--14	6.91%	5.92%	7.93%	3.61%	4.63%	2.58%	3.30%	1.29%	5.35%	2.01%	-2.05%	
15--19	13.17%	10.24%	15.96%	5.12%	6.04%	4.32%	8.05%	4.20%	11.64%	5.72%	-1.72%	
20--24	18.06%	14.45%	21.27%	7.02%	7.06%	6.99%	11.04%	7.39%	14.29%	6.82%	-0.07%	
25--29	17.88%	13.20%	22.33%	10.08%	8.65%	11.31%	7.79%	4.55%	11.01%	9.13%	2.67%	
30--39	22.20%	15.45%	28.21%	14.67%	10.86%	17.93%	7.52%	4.59%	10.28%	12.76%	7.08%	
40--49	31.47%	22.85%	38.94%	20.51%	13.90%	26.52%	10.95%	8.95%	12.42%	16.09%	12.62%	
50--59	40.08%	31.93%	47.18%	26.81%	17.21%	35.53%	13.27%	14.72%	11.65%	15.25%	18.32%	
60+	51.30%	45.55%	56.10%	39.12%	26.12%	51.13%	12.18%	19.42%	4.97%	10.56%	25.01%	
unknown	34.15%	28.83%	38.65%	23.95%	17.74%	28.57%	10.20%	11.09%	10.08%	9.82%	10.83%	
10+	24.01%	18.55%	28.98%	15.41%	11.57%	18.84%	8.60%	6.98%	10.14%	10.43%	7.27%	
15+	26.27%	20.34%	31.58%	16.82%	12.46%	20.65%	9.45%	7.88%	10.93%	11.24%	8.20%	
20+	28.48%	22.11%	34.12%	18.68%	13.47%	23.25%	9.80%	8.63%	10.87%	12.02%	9.78%	
20-59	28.47%	22.10%	34.12%	15.30%	11.31%	18.77%	13.17%	10.79%	15.35%	12.02%	7.46%	
Urban												
10--14	1.95%	1.84%	2.07%	3.10%	3.92%	2.25%	-1.15%	-2.09%	-0.18%	0.23%	-1.67%	
15--19	4.06%	2.95%	5.05%	4.55%	5.24%	3.93%	-0.49%	-2.29%	1.12%	2.09%	-1.31%	
20--24	6.10%	4.94%	7.02%	6.41%	6.33%	6.47%	-0.31%	-1.39%	0.54%	2.07%	0.14%	
25--29	6.81%	5.28%	8.17%	9.20%	7.86%	10.34%	-2.39%	-2.58%	-2.17%	2.89%	2.48%	
30--39	9.59%	6.73%	11.98%	13.24%	9.75%	16.15%	-3.65%	-3.02%	-4.17%	5.25%	6.40%	
40--49	15.62%	10.95%	19.54%	18.37%	12.41%	23.75%	-2.75%	-1.46%	-4.21%	8.59%	11.34%	
50--59	22.02%	16.19%	26.89%	24.04%	15.29%	32.01%	-2.02%	0.90%	-5.12%	10.70%	16.73%	
60+	32.38%	25.98%	36.69%	35.89%	23.40%	47.06%	-3.51%	2.57%	-10.37%	10.71%	23.66%	
unknown	20.98%	14.22%	26.04%	23.31%	17.33%	27.59%	-2.33%	-3.12%	-1.55%	11.83%	10.26%	
10+	11.60%	8.44%	14.26%	13.87%	10.25%	17.08%	-2.28%	-1.81%	-2.83%	5.82%	6.83%	
15+	12.59%	9.20%	15.40%	15.13%	11.05%	18.68%	-2.54%	-1.85%	-3.28%	6.20%	7.63%	
20+	13.88%	10.19%	16.89%	16.80%	11.98%	20.97%	-2.91%	-1.78%	-4.08%	6.70%	9.00%	
20-59	13.87%	10.19%	16.88%	13.79%	10.14%	16.93%	0.08%	0.05%	-0.06%	6.69%	6.80%	
Rural												
10--14	8.07%	6.86%	9.30%	5.22%	6.93%	3.58%	2.85%	-0.06%	5.72%	2.44%	-3.35%	
15--19	15.74%	12.22%	19.15%	7.05%	8.81%	5.59%	8.70%	3.41%	13.56%	6.93%	-3.23%	
20--24	21.77%	17.18%	26.00%	9.18%	9.60%	8.82%	12.59%	7.57%	17.18%	8.82%	-0.79%	
25--29	21.51%	15.67%	27.19%	13.22%	11.35%	14.89%	8.29%	4.32%	12.30%	11.52%	3.54%	
30--39	26.60%	18.36%	34.11%	19.83%	14.62%	24.63%	6.77%	3.74%	9.48%	15.75%	10.02%	
40--49	36.96%	26.88%	45.81%	28.47%	19.35%	36.94%	8.49%	7.52%	8.87%	18.93%	17.58%	
50--59	45.83%	36.80%	53.81%	36.36%	23.89%	47.66%	9.47%	12.91%	6.15%	17.01%	23.77%	
60+	56.61%	50.24%	62.25%	48.43%	33.48%	63.61%	8.18%	16.76%	-1.36%	12.01%	30.13%	
unknown	38.46%	33.20%	43.08%	27.09%	19.50%	33.86%	11.37%	13.70%	9.22%	9.88%	14.36%	
10+	27.83%	21.50%	33.73%	20.67%	16.00%	24.93%	7.17%	5.51%	8.80%	12.23%	8.93%	
15+	30.63%	23.70%	37.00%	22.66%	17.20%	27.60%	7.98%	6.50%	9.40%	13.31%	10.41%	
20+	33.22%	25.75%	40.02%	25.21%	18.50%	31.40%	8.01%	7.26%	8.62%	14.26%	12.90%	
20-59	33.21%	25.74%	40.01%	20.70%	15.40%	25.48%	12.52%	10.34%	14.53%	14.27%	10.07%	

Notes: The table presents the illiteracy rates of Jews and non-Jews in various ages. The data source is the 1931 Polish population census. "Jewish literacy advantage" is defined as the illiteracy rate of non-Jews minus the illiteracy rate of Jews. "Men literacy advantage" is defined as the illiteracy rate of women minus the illiteracy rate of men.

Table A3. The age distribution of Jewish and non-Jewish populations, 1921 and 1931.

PANEL A: AGE DISTRIBUTION 1921																		
	Urban & Rural						Urban						Rural					
	non-Jews			Jews			non-Jews			Jews			non-Jews			Jews		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
10-14	14%	14%	13%	14%	15%	13%	12%	13%	11%	14%	15%	13%	14%	15%	14%	15%	15%	14%
15-19	12%	12%	12%	13%	12%	13%	12%	12%	12%	13%	13%	13%	12%	12%	13%	13%	13%	13%
20-29	17%	16%	17%	17%	15%	19%	17%	15%	19%	17%	14%	20%	15%	14%	16%	15%	14%	17%
30-39	11%	11%	12%	12%	12%	12%	14%	14%	14%	12%	12%	12%	11%	10%	11%	10%	10%	11%
40-49	9%	9%	9%	10%	10%	10%	11%	11%	10%	10%	10%	10%	9%	9%	9%	9%	9%	9%
50-59	8%	8%	8%	8%	8%	7%	8%	8%	8%	8%	8%	7%	8%	8%	8%	8%	9%	8%
60+	7%	7%	7%	7%	7%	7%	7%	6%	7%	7%	7%	6%	7%	8%	7%	8%	8%	7%
unknown	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.5%	0.5%	0.5%	0.3%	0.2%	0.3%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%
10+	78%	77%	79%	80%	79%	81%	81%	79%	82%	80%	79%	82%	77%	76%	78%	79%	78%	80%
15+	64%	63%	66%	66%	64%	68%	69%	66%	71%	67%	64%	69%	63%	61%	64%	64%	62%	65%
20+	52%	51%	53%	53%	52%	55%	57%	54%	59%	54%	52%	56%	50%	49%	52%	51%	50%	52%
20-59	52%	51%	53%	46%	44%	48%	56%	53%	59%	47%	45%	49%	50%	49%	51%	43%	41%	45%

PANEL B: AGE DISTRIBUTION 1931																		
	Urban & Rural						Urban						Rural					
	non-Jews			Jews			non-Jews			Jews			non-Jews			Jews		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
10-14	10%	11%	10%	9%	10%	9%	8%	9%	8%	9%	10%	9%	11%	11%	10%	10%	10%	10%
15-19	11%	11%	11%	11%	10%	11%	11%	11%	10%	11%	11%	11%	11%	11%	11%	11%	10%	11%
20-24	12%	11%	12%	12%	11%	12%	12%	11%	12%	12%	11%	12%	11%	11%	12%	11%	11%	12%
25-29	10%	11%	10%	10%	10%	11%	11%	12%	11%	10%	10%	11%	10%	10%	10%	10%	10%	10%
30-39	15%	15%	15%	15%	15%	16%	17%	17%	18%	16%	15%	16%	15%	14%	15%	14%	14%	15%
40-49	11%	10%	11%	11%	11%	11%	12%	12%	12%	12%	12%	12%	10%	10%	11%	10%	10%	10%
50-59	8%	8%	8%	9%	9%	9%	8%	8%	9%	9%	9%	9%	8%	8%	8%	9%	8%	9%
60+	9%	8%	9%	10%	10%	9%	8%	7%	9%	9%	9%	9%	9%	9%	9%	11%	11%	10%
unknown	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
10+	86%	85%	86%	87%	86%	88%	88%	87%	89%	88%	87%	89%	85%	84%	85%	85%	85%	86%
15+	76%	74%	77%	78%	76%	79%	80%	78%	82%	79%	77%	80%	74%	73%	75%	76%	75%	77%
20+	65%	63%	66%	67%	66%	68%	70%	68%	71%	68%	66%	69%	63%	62%	64%	65%	65%	65%
20-59	65%	63%	66%	58%	56%	59%	69%	67%	71%	59%	57%	60%	63%	62%	64%	54%	54%	55%

Notes: The table presents the age distribution of Jewish and non-Jewish population in 1921 (Panel A) and 1931 (Panel B). The data sources are the 1921 and the 1931 Polish population censuses.

Table A4. Post-primary education of Jews and non-Jews, various age groups, 1921.

	Post-Primary total			Occupational			Secondary			Post-Secondary		
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women
Urban & Rural												
non-Jews												
20-29	5.9%	7.1%	4.8%	1.0%	1.6%	0.6%	4.0%	4.1%	3.9%	0.8%	1.4%	0.3%
30-39	5.4%	7.3%	3.7%	1.0%	1.7%	0.3%	3.4%	3.6%	3.2%	1.0%	2.0%	0.2%
40-49	4.0%	5.4%	2.8%	0.7%	1.2%	0.2%	2.6%	2.7%	2.5%	0.8%	1.4%	0.1%
50-59	3.2%	4.2%	2.3%	0.4%	0.8%	0.1%	2.2%	2.3%	2.1%	0.6%	1.1%	0.1%
60+	2.5%	3.0%	2.0%	0.3%	0.5%	0.1%	1.8%	1.8%	1.8%	0.4%	0.8%	0.1%
20+	4.6%	5.8%	3.5%	0.8%	1.3%	0.3%	3.1%	3.2%	3.0%	0.8%	1.4%	0.2%
30+	4.0%	5.2%	2.8%	0.6%	1.1%	0.2%	2.6%	2.7%	2.5%	0.7%	1.4%	0.1%
Jews												
20-29	12.1%	12.6%	11.8%	1.5%	2.1%	1.1%	8.5%	7.2%	9.3%	2.1%	3.3%	1.3%
30-39	8.5%	10.3%	7.0%	1.0%	1.7%	0.4%	6.0%	5.9%	6.0%	1.6%	2.7%	0.5%
40-49	6.0%	7.6%	4.6%	0.6%	1.1%	0.2%	4.6%	4.9%	4.3%	0.8%	1.6%	0.1%
50-59	4.5%	5.8%	3.3%	0.4%	0.7%	0.1%	3.6%	3.9%	3.2%	0.6%	1.1%	0.1%
60+	2.6%	3.3%	1.9%	0.3%	0.5%	0.0%	2.0%	2.2%	1.8%	0.3%	0.6%	0.0%
20+	7.9%	8.8%	7.2%	0.9%	1.4%	0.5%	5.7%	5.3%	6.0%	1.3%	2.1%	0.6%
30+	5.9%	7.2%	4.6%	0.6%	1.1%	0.2%	4.3%	4.5%	4.2%	0.9%	1.6%	0.2%
Urban												
non-Jews												
20-29	19.5%	24.8%	16.0%	3.0%	4.7%	1.9%	13.3%	13.8%	12.9%	3.2%	6.3%	1.2%
30-39	16.7%	21.9%	12.2%	2.7%	4.7%	1.0%	10.5%	10.6%	10.4%	3.5%	6.6%	0.8%
40-49	13.9%	18.3%	10.1%	2.0%	3.5%	0.6%	9.2%	9.4%	9.1%	2.8%	5.3%	0.5%
50-59	11.9%	15.9%	8.5%	1.4%	2.7%	0.3%	8.3%	8.9%	7.9%	2.1%	4.3%	0.4%
60+	10.1%	13.6%	7.6%	0.9%	1.8%	0.2%	7.4%	7.9%	7.1%	1.8%	3.9%	0.3%
20+	15.6%	20.2%	12.0%	2.2%	3.8%	1.0%	10.4%	10.7%	10.2%	2.9%	5.6%	0.8%
30+	13.8%	18.3%	10.1%	1.9%	3.5%	0.6%	9.2%	9.5%	8.9%	2.7%	5.3%	0.5%
Jews												
20-29	15.0%	15.9%	14.5%	1.8%	2.4%	1.4%	10.5%	9.1%	11.5%	2.7%	4.4%	1.7%
30-39	10.5%	12.4%	8.8%	1.2%	1.9%	0.5%	7.4%	7.2%	7.6%	1.9%	3.3%	0.7%
40-49	7.6%	9.4%	5.9%	0.7%	1.3%	0.2%	5.8%	6.1%	5.5%	1.0%	2.0%	0.2%
50-59	5.9%	7.5%	4.3%	0.5%	0.9%	0.1%	4.6%	5.1%	4.2%	0.7%	1.4%	0.1%
60+	3.4%	4.5%	2.5%	0.3%	0.6%	0.1%	2.7%	3.1%	2.4%	0.4%	0.7%	0.1%
20+	9.9%	10.9%	9.0%	1.1%	1.6%	0.7%	7.1%	6.6%	7.6%	1.7%	2.7%	0.8%
30+	7.4%	9.1%	5.9%	0.8%	1.3%	0.3%	5.5%	5.7%	5.4%	1.1%	2.1%	0.3%
Rural												
non-Jews												
20-29	2.0%	2.6%	1.6%	0.4%	0.6%	0.2%	1.5%	1.6%	1.4%	0.2%	0.4%	0.1%
30-39	1.9%	2.7%	1.1%	0.4%	0.8%	0.1%	1.2%	1.4%	1.0%	0.3%	0.6%	0.1%
40-49	1.3%	1.8%	0.8%	0.3%	0.5%	0.1%	0.8%	0.9%	0.7%	0.2%	0.4%	0.0%
50-59	1.1%	1.5%	0.6%	0.2%	0.4%	0.0%	0.7%	0.8%	0.6%	0.2%	0.3%	0.0%
60+	0.8%	1.2%	0.5%	0.1%	0.3%	0.0%	0.6%	0.7%	0.5%	0.1%	0.3%	0.0%
20+	1.5%	2.1%	1.1%	0.3%	0.5%	0.1%	1.0%	1.1%	0.9%	0.2%	0.4%	0.0%
30+	1.3%	1.9%	0.8%	0.3%	0.5%	0.1%	0.8%	1.0%	0.7%	0.2%	0.4%	0.0%
Jews												
20-29	2.8%	3.5%	2.2%	0.5%	0.7%	0.3%	1.8%	2.0%	1.7%	0.4%	0.7%	0.2%
30-39	1.9%	2.8%	1.0%	0.4%	0.8%	0.1%	1.0%	1.3%	0.8%	0.4%	0.8%	0.1%
40-49	1.1%	1.8%	0.6%	0.3%	0.5%	0.0%	0.7%	1.0%	0.5%	0.2%	0.4%	0.0%
50-59	0.7%	1.1%	0.3%	0.1%	0.3%	0.0%	0.5%	0.6%	0.3%	0.1%	0.2%	0.0%
60+	0.5%	0.7%	0.3%	0.1%	0.2%	0.0%	0.3%	0.4%	0.2%	0.1%	0.1%	0.0%
20+	1.6%	2.2%	1.1%	0.3%	0.5%	0.1%	1.0%	1.2%	0.9%	0.3%	0.5%	0.1%
30+	1.1%	1.7%	0.6%	0.3%	0.5%	0.0%	0.7%	0.8%	0.5%	0.2%	0.4%	0.0%

Notes: The table presents the post-primary education of people aged 30 or more. The data source is the 1921 Polish population census. The first three columns present the percentage of people with post-primary education. The next 9 columns break down this percentage to the type of post-primary education: occupational (columns 4-6), secondary (columns 7-9), or post-secondary (columns 10-12) education. These post-primary education types are defined in section 3.3 in the text.