

Were Jews in Interwar Poland More Educated?

Ran Abramitzky, Hanna Halaburda

Impressum:

CESifo Working Papers

ISSN 2364-1428 (electronic version)

Publisher and distributor: Munich Society for the Promotion of Economic Research - CESifo GmbH

The international platform of Ludwigs-Maximilians University's Center for Economic Studies and the ifo Institute

Poschingerstr. 5, 81679 Munich, Germany

Telephone +49 (0)89 2180-2740, Telefax +49 (0)89 2180-17845, email office@cesifo.de

Editor: Clemens Fuest

<https://www.cesifo.org/en/wp>

An electronic version of the paper may be downloaded

- from the SSRN website: www.SSRN.com
- from the RePEc website: www.RePEc.org
- from the CESifo website: <https://www.cesifo.org/en/wp>

Were Jews in Interwar Poland More Educated?

Abstract

In the context of interwar Poland, we find that Jews tended to be more literate than non-Jews, but show that this finding 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. The case of interwar Poland illustrates that the Jewish relative education advantage depends on the historical and institutional contexts.

JEL-Codes: N340.

Keywords: education, illiteracy, Jewish minority, Poland.

Ran Abramitzky
Stanford University
USA - Stanford, CA 94305-6072
ranabr@stanford.edu

Hanna Halaburda
NYU Stern School of Business
USA - 10012, New York, NY
Hhalaburda@gmail.com

February 6, 2020

First version: 2005. We are grateful to Jared Rubin, Joel Mokyr, Yannay Spitzer, Santiago Perez, Lukasz Pomorski, Nicky Irvine Halterman, Scott Kamino and David Yang for helpful comments and discussions. We also thank Piotr Kuszewski for invaluable help with data collection.

1 Introduction

An important body of literature has focused on the question of why Jews throughout history have tended to be more literate and educated than non-Jews. One prominent explanation 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 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. Another prominent explanation, suggested by Botticini and Eckstein (2005, 2007, 2013), is 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

Focusing on interwar Poland, we find that Jews were on average more literate and educated than non-Jews. However, this pattern 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. For example, in 1931, 24% of non-Jews were illiterate, compared to 15.4% among Jews. Jews living in cities were less literate than the general city population, while Jews living in rural areas were more literate than the general rural population. Future research on Jewish education levels should take into account this composition effect, and explore why urban Jews were relatively less educated in Poland. This might involve refining existing theories to lay out the conditions under which Jews were more educated and how

² Some contemporary gentiles also believed that Jews tended to obtain more education than the general population (e.g. Tomaszewski 1985). Such arguments led Polish nationalistic movement to frequently advocate the introduction of *numerus clausus*, which would limit the percentage of Jewish students at a university 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).)

educational choices affected and were affected by the constraints on and decisions by Jews of where to live.

2 Data from the 1921 and 1931 censuses

We use data collected in two censuses in interwar Poland, in 1921 and 1931.³ 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 annals of the Main Statistics Office (*Rocznik statystyczny*) for the 1920s and abbreviated annals (*Mały rocznik statystyczny*) for the 1930s. The censuses included the whole population, and the data are fairly representative of the population, although the 1921 census has a number of important shortcomings (Statystyka Polski 1938 and Dłuska and Holzer 1958).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?” The illiteracy and education data were reported in aggregate and by religious groups.

Previous literature has raised the issue of whether Jewish illiteracy may be overstated if Yiddish or Hebrew were not recognized as legitimate languages. Corrsin (1999) raised this issue in the context of the Russian census of 1897,⁵ and Corrsin (1998) in the context of the Polish census of 1921. This issue was widely recognized and discussed by Polish statisticians in the early 20th century, and they actively aimed at countering it in Polish censuses.⁶ After doubts whether they succeeded in 1921, the census question in 1931 explicitly asked “can read in *any* language?” and “can write in *any* language?”. Indeed, according to Corrsin (1998), the 1931 census does not misrepresent literacy among Jews. For these reasons, while the cross sectional comparisons seem meaningful, comparisons across censuses are more problematic (Stampfer 1987). Accordingly, we

³ Before 1795, Poland had been a multi-cultural country for centuries (Davies 1984). A 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.

⁴ The 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. By the time of the 1921 census, it was not yet clear what parts of the regions would belong to Poland and this territory was excluded from 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, which was densely populated by minorities (Rothschild 1974). Moreover, the 1921 census was conducted soon after the war between Poland and Soviet Union was over. The after-war migrations in the east of Poland were likely not yet finalized. 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 Perlmann (1996) questions the thesis that Jewish literacy was underreported in the 1897 Russian census. He looks at comparable data in the 1926 Soviet census, which explicitly recognized Yiddish as language. He shows that Jews in the corresponding age groups (e.g. 20-29 year olds in 1897 and 50-59 year olds in 1926) have similar illiteracy rates.

⁶ *Statystyka Polski* (1938), Bronsztejn (1963).

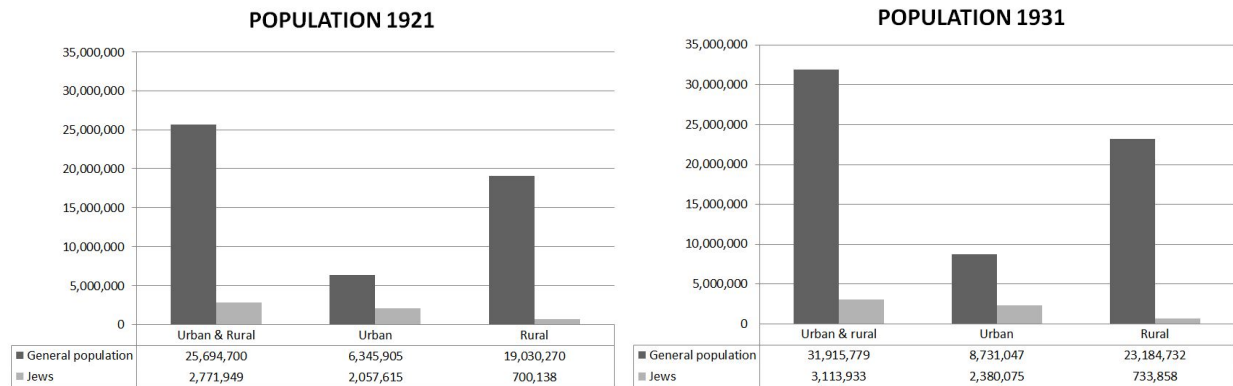
make comparisons between the education and literacy of Jews and non-Jews within each census, but we avoid comparisons across the two censuses.

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, even though they only constituted 10.8% of the total population in Poland.^{7,8} In 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.⁹ They accounted for 27.3% of the total urban population, and only for 3.2% of the rural population. In both censuses, age distributions are quite similar across urban and rural, Jewish and non-Jewish populations (Appendix Figures 1(a)-1(c) and Figures 2(a)-2(c)).

Figure 1: The Polish population mostly lived in rural areas, while Jews mostly lived in urban areas.



Notes: The figure presents the Polish population. The data sources are the censuses of 1921 and 1931.

Moreover, and consistent with Botticini and Eckstein (2013), we find that the proportion of Jews

⁷ The 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 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 were in the west.

⁸ Unlike other minorities, Jews were present throughout Poland, but were more present in towns and more concentrated in the central and eastern areas.

⁹ By 1931, the Jewish population grew to 3,113,933. But it had grown slower than the total population, which reached 31,915,779.

working in agriculture is much smaller than in the general population. In 1921, 74% of the Polish population worked in agriculture, but less than 10% of Jews did. Similarly, in 1931, 61% of the Polish population worked in agriculture, but only 4.02% of Jews. Outside of agriculture, Jews were mainly concentrated in the sectors of mining, industry, commerce, and insurance.

3.2 Jews were more literate than the general population 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”.¹⁰ On average, we find that Jews were more literate than non-Jews.¹¹ In 1921, while 33.2% of non-Jews were illiterate, only 28.86% of 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.^{12,13}

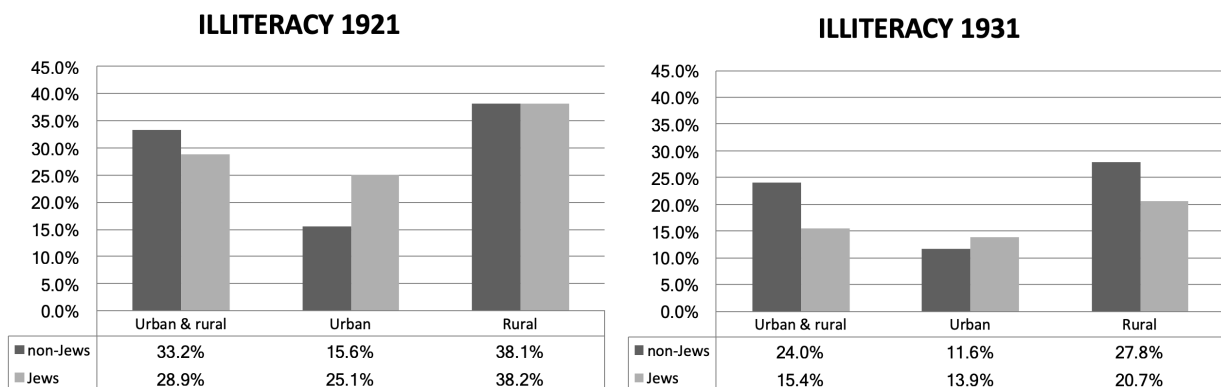
¹⁰While the 1921 census had only one illiteracy category (“could not read”), the 1931 census distinguished between “could not write” and “could neither read nor write.” The qualitative results of our analysis are the same if we consider the category “could not write” for the 1931 census.

¹¹ We only have access to averages. Since we do not know the variances, we cannot say whether the differences between averages are statistically significant. Small differences are, of course, less likely to be statistically significant. Moreover, small differences may also be a result of imperfections in data collection and aggregation.

¹² In 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.

¹³ Both 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. For towns above 20,000 inhabitants general illiteracy was 10.8%, and Jewish illiteracy 12.3%. For towns 20,000 and below, general illiteracy was 14.8%, and Jewish illiteracy 16.4%.

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



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

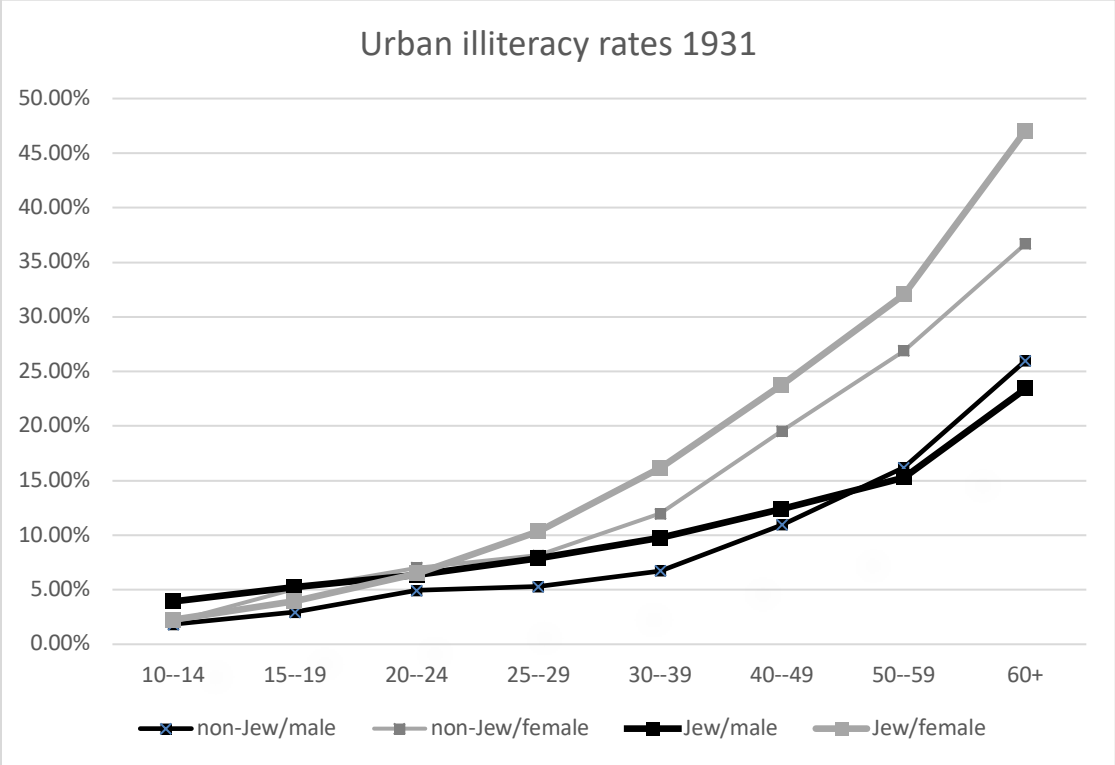
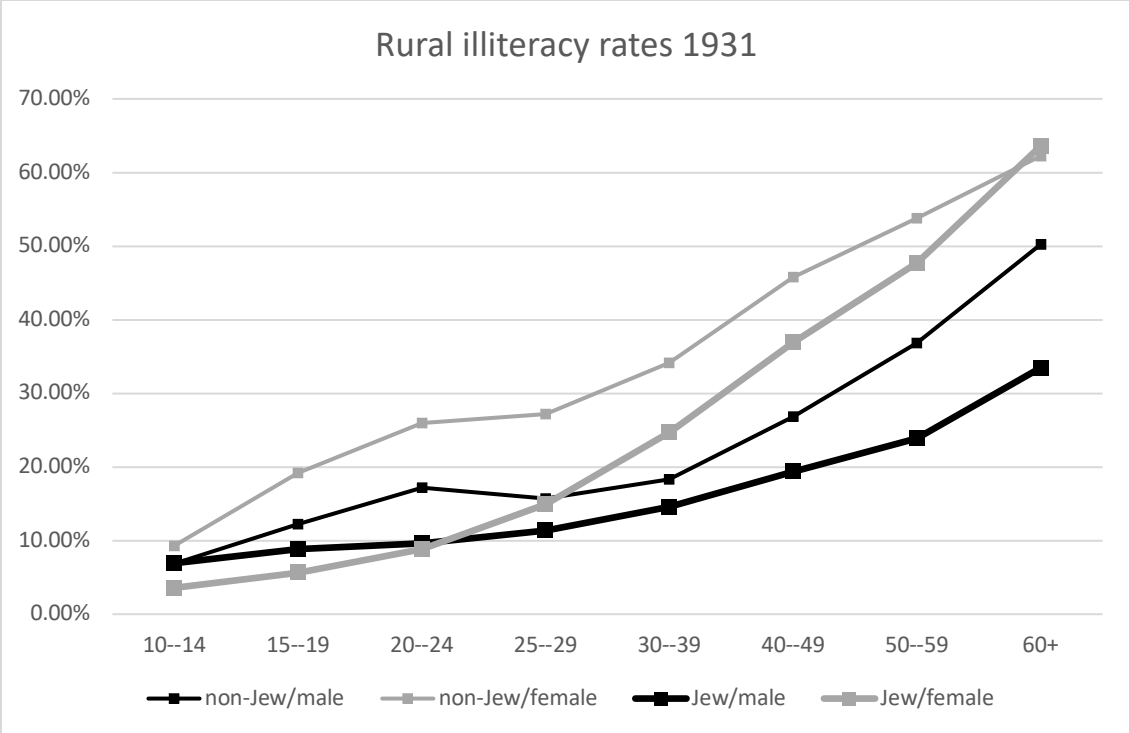
Panels (a)-(d) of Figure 3 show that these patterns are overall similar when considering different age groups, and for both men and women.¹⁴ Interestingly, however, in rural areas in 1921, Jewish men aged 40+ were less illiterate than their peers in the general population, while younger Jewish men were more illiterate. In contrast, Jewish women aged 30+ were more illiterate, while younger Jewish women were less illiterate than younger women in the general population.¹⁵

¹⁴ Illiteracy 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 the general urban population, then the Jewish illiteracy rates on average would be higher simply due to larger proportion of older, more illiterate Jews. However, Appendix Figures 1 and 2 shows that the age distributions of the Jewish and the general population (along with urban/rural subpopulations) 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.

¹⁵ In 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. These figures may indicate convergence between men and women in the 10-19 cohort in the 1921 census in the time before the 1931 census, but differences in census methodology make this comparison only suggestive.

Figure 3: Jewish and non-Jewish literacy in 1921 and 1931, by rural and urban localities.





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

3.3. Jews were more often home-schooled than the general population

The 1921 census reported the highest obtained level of education: primary, home-schooling, secondary, occupational and post-secondary education.¹⁶ Attending primary or home-schooling was compulsory in all areas that were included in Poland in 1921.¹⁷ The remaining categories – occupational, secondary, and post-secondary education – were post-primary education levels.¹⁸

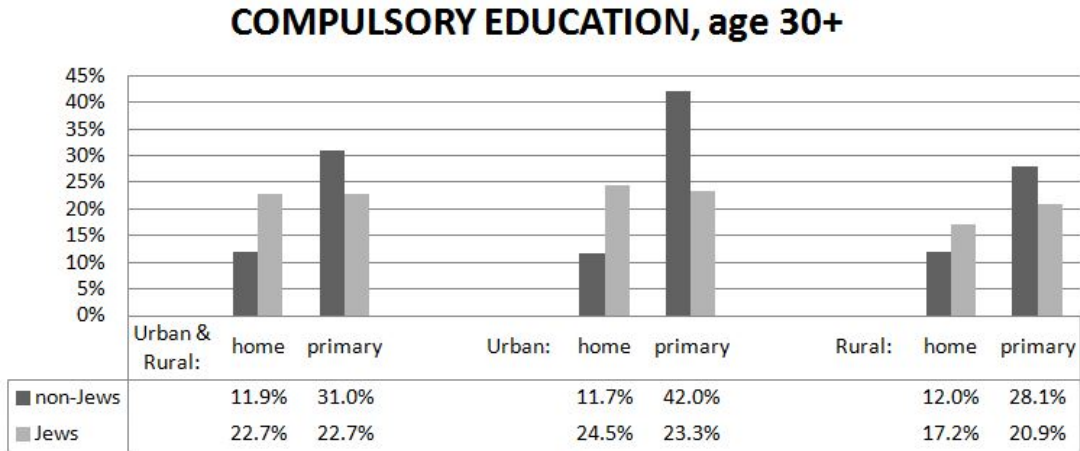
We find that Jews differed significantly from the general population in their compulsory education. *Primary* education includes state-provided primary schooling system. The length of the education in state primary schools differed depending on time and geography, and could be between 4 and 7 grades. 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 the Austro-Hungarian Empire. Those differences are not marked in the census. All primary schools are considered in the same category. A significant fraction of the 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 4). There was not much control or oversight of home-schooling in Poland during the early 20th century, which may have resulted in higher illiteracy rates. Moreover, the numbers in Figure 4 indicate that around 50% of population did not receive full primary education nor equivalent home-schooling. This may have been due to the war years, and because the obligation for education was poorly executed (Landau and Tomaszewski 1971).

¹⁶ Unfortunately, data on education level was not reported in the 1931 census.

¹⁷ However, this obligation was not thoroughly executed and there were still children who did not get any level of education (Landau and Tomaszewski 1971).

¹⁸ The 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 the 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 4: Jews were more often home schooled while the general population more often attended state-provided primary schools.

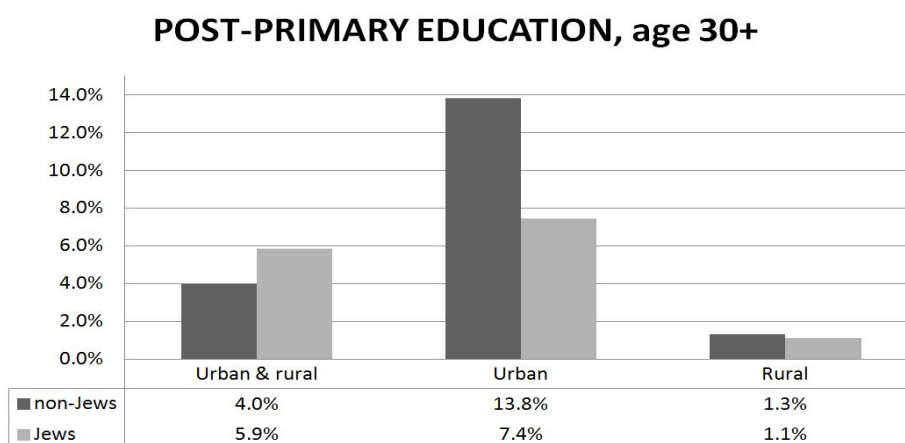


Notes: The figure presents compulsory levels of education (home schooling and state-provided primary education) of people aged 30 and older. The source is the Polish 1921 population census.

3.4. Jews attained higher levels of education than the general population overall, but lower levels in urban areas

The 1921 census reports three categories of post-primary education: occupational, secondary, and post-secondary education. Nationwide, 4.2% of Poles aged 30 and older achieved some level of post-primary education, as compared with 5.9% of Jews. Figure 5 suggests that this education advantage is again a result of a composition effect: Jews, unlike non-Jews, predominantly lived in urban areas, 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.

Figure 5: Jews were more likely to obtain post-primary education than the general population on average, but in urban areas (and to some extent rural areas) they were less likely to do so



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

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.

The numbers reported in Figure 5 and Table 1 refer to people who are 30 or older, as they presumably already completed their education. Appendix Table 1 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 the category “post-secondary education.” In this age group, Jewish women appear more likely to obtain a university diploma than non-Jewish women.

In rural areas the levels of post-primary education were in general low, and the differences between Jewish and non-Jewish population were very 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 Discussion

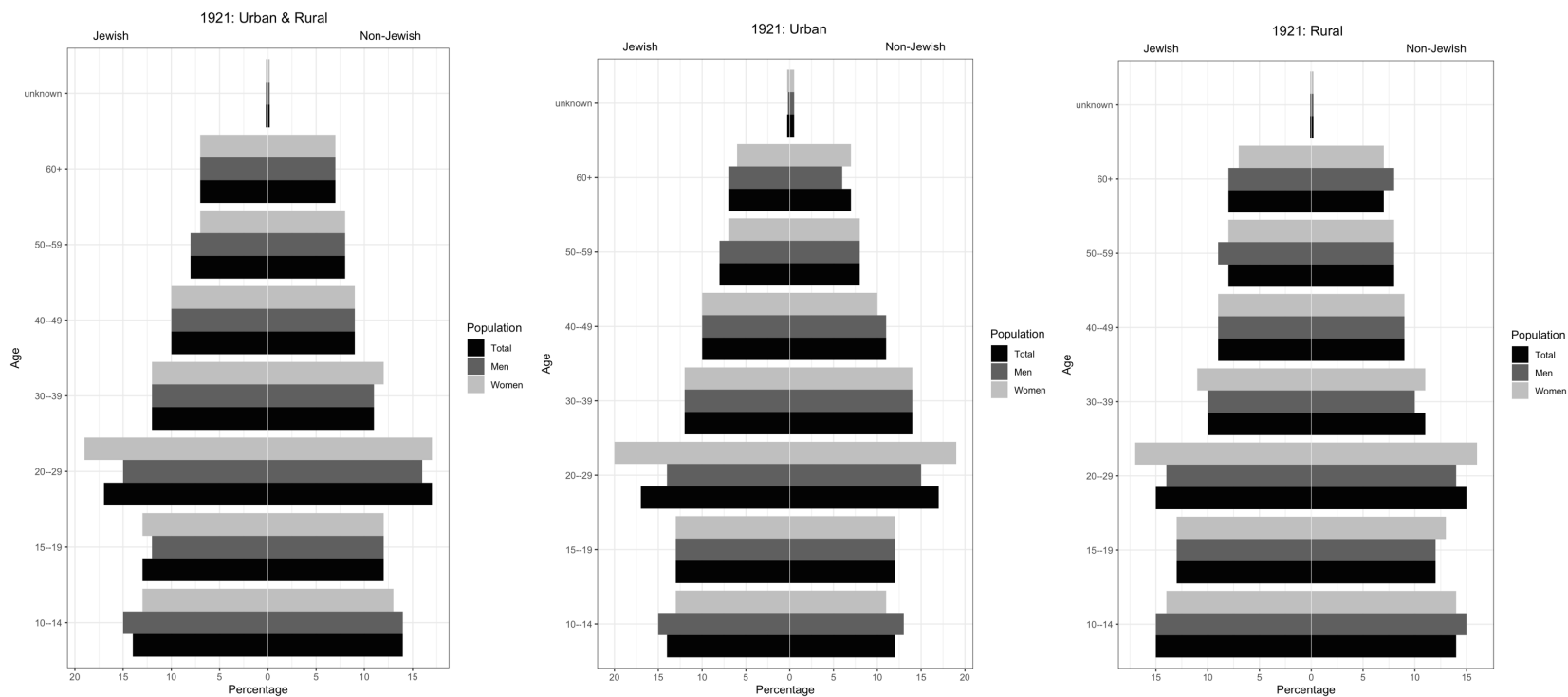
We conclude that the literacy and education advantage of Jews in interwar Poland masks a composition effect. Jews tended to live in urban areas, and urban people tended to be more educated than rural people regardless of their religion. When comparing Jews to non-Jews in urban places, there is no longer 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 literacy advantage in rural areas and literacy 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 from living in rural areas. Indeed, unlike the general Polish population at the time, and consistent with Botticini and Eckstein (2013), most Jews worked outside of agriculture and in more urban occupations such as commerce and insurance. The patterns we document may also reflect the tendency of Jews to hold similar education regardless of whether they lived in the city or in a rural area (Spitzer 2019).

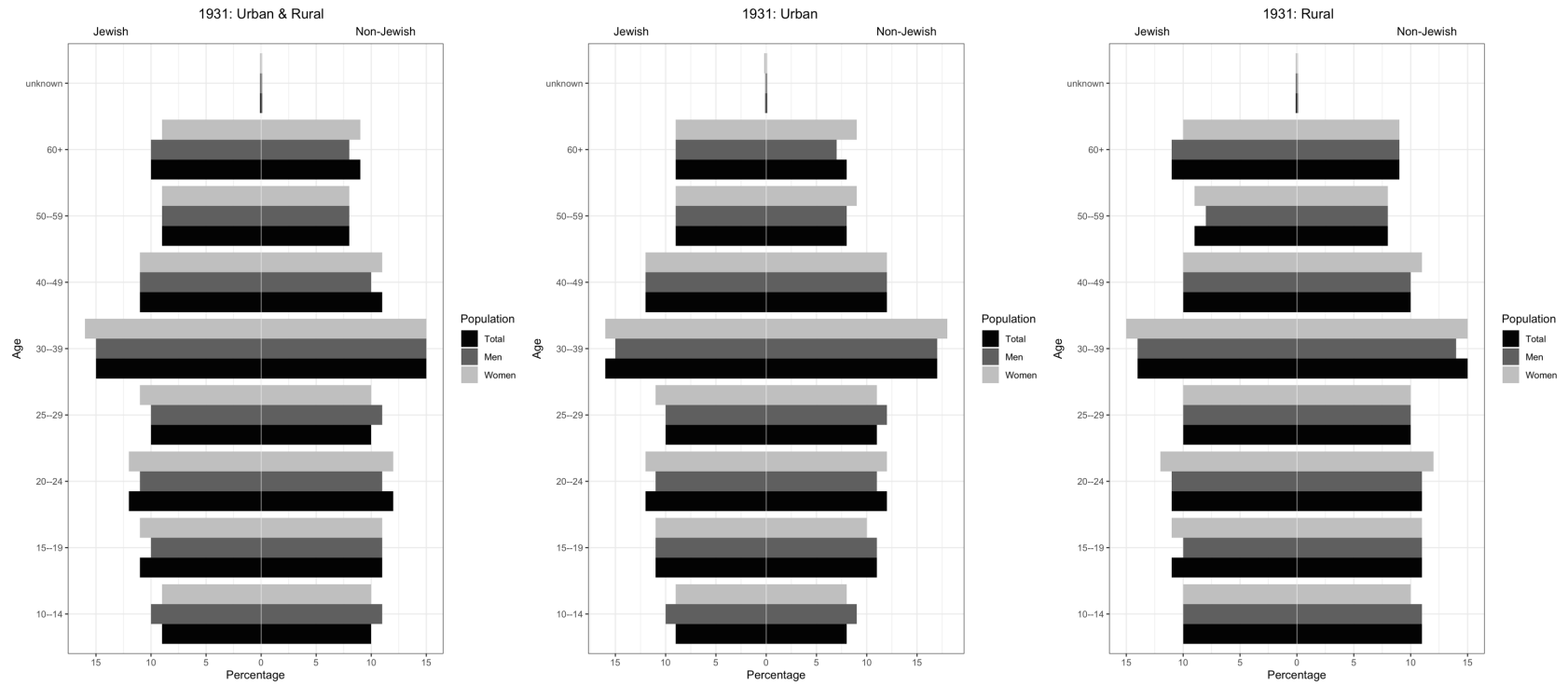
Moreover, while our paper illuminates patterns of education for Jews in Poland, the results do not apply universally. Polish Jews were less literate than Jews elsewhere, especially in New Russia. In Belarus and the Ukraine, Jews were much more literate and non-Jews were much less literate (Spitzer 2019). In the context of 1871 Prussia, Jews seemed to have had no significant literacy advantage with respect to Catholics in towns but an advantage in villages and manors (Becker and Cinnirella 2019). Like in all empirical settings, estimates of Jewish advantage may vary depending on the historical and institutional setting (see also Stampfer 1987). A natural next step for theories of the Jews is to better understand the conditions under which Jews had an educational advantage, and the relationship between education and location composition effects.

Appendix

Appendix Figure 1a-c: The age distribution of Jewish and non-Jewish populations, 1921



Appendix Figure 2a-c: The age distribution of Jewish and non-Jewish populations, 1931



Appendix Table 1: 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.

References

Maly rocznik statystyczny, 1930-39.

Rocznik statystyczny, 1922-29.

Statystyka Polski (1938), seria C, zeszyt 94d.

Becker, Sascha and Francesco Cinnirella (2020), "Prussia Disaggregated: The Demography of its Universe of Localities in 1871," working paper.

Botticini, Maristella and Zvi Eckstein (2005), "Jewish Occupational Selection: Education, Restrictions, or Minorities?," *Journal of Economic History*, Vol. 65, No. 4, pp. 922--948.

Botticini, Maristella and Zvi Eckstein (2007), "From Farmers to Merchants, Conversions and Diaspora: Human Capital and Jewish History," *Journal of the European Economic Association*, Vol. 5, No. 5, pp. 885--926.

Botticini, Maristella and Zvi Eckstein (2013), *The Chosen Few: How Education Shaped Jewish History*, 70-1492, Princeton University Press.

Bronsztejn, Szyja (1963), *Ludność żydowska w Polsce w okresie międzywojennym. Studium statystyczne*, Ossolineum.

Corrsin, Stephen (1998), "Literacy Rates and Questions of Language, Faith and Ethnic Identity in Population Censuses in the Partitioned Polish Lands and Interwar Poland (1880s-1930s)," *The Polish Review*, Vol. 43, No. 2, pp. 131--160.

Corrsin, Stephen (1999), "The City of Illiterates? Levels of Literacy among Poles and Jews in Warsaw, 1882—1914," *Polin: Studies in Polish Jewry*, Vol. 12, pp. 221—241.

Davies, Norman (1984), *Heart of Europe: A Short History of Poland*, Oxford University Press.

Dłuska, Teresa and Jerzy Holzer (1958), "Doświadczenia powszechnych spisów ludności Polski w zakresie cech demograficznych, *Wiadomości Statystyczne*," Vol. III, No. 3, pp. 1--7.

Eliezer, Ayal and Barry Chiswick (1983), "The Economics of the Diaspora Revisited," *Economic Development and Cultural Change*, Vol 31, No. 4, pp. 861--875.

Hundert, Gershon David, ed. (2008), *The YIVO Encyclopedia of Jews in Eastern Europe*, Yale University Press.

Kuznets, Simon (1960), "Economic Structure and Life of the Jews," In *The Jews: Their History, Culture, and Religion*, edited by Louis Finkelstein, Harper & Brothers.

Landau, Zbigniew and Jerzy Tomaszewski (1971), *Zarys historii gospodarczej Polski 1918-1939*, Książka i Wiedza.

Mendelsohn, Ezra (1987), *The Jews of East Central Europe between the World Wars*, Indiana University Press.

Perlmann, Joel (1997), "Literacy Among Jews of Russia in 1897: A Reanalysis of Census Data," Levy Economics Institute Working Paper No. 182

Rothschild, Joseph (1974), *East Central Europe between the Two World Wars*, University of Washington Press.

Spitzer, Yannay (2019), "Pale in Comparison Jews as a Rural Service Minority," working paper.

Stampfer, Shaul (1987), "Literacy Among East European Jews in the Modern Era: Context, Sources and Implications" (in Hebrew), In *Transition and Change in Modern Jewish History: Essays Presented in Honor of Shmuel Ettinger*, edited by Shmuel Almog, Jerusalem: Zalman Shazar Center.

Tomaszewski, Jerzy (1985), *Ojczyzna nie tylko Polaków. Mniejszości narodowe w Polsce w latach 1918-1939*, Młodzieżowa Agencja Wydawnicza.

Tomaszewski, Jerzy (1991), *Mniejszości narodowe w Polsce XXw.*, Editions Spotkania.

Tomaszewski, Jerzy, ed. (1993), *Najnowsze dzieje Żydów w Polsce: w zarysie (do 1950) roku*, Wydawnictwo Naukowe PWN.