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11 Were Jews Political Refugees or Economic Migrants? Assessing the Persecution Theory of Jewish Emigration, 1881–1914

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In 1881, 4.1 million Jews lived in the Russian empire. Over the next three decades, 1.5 million Russian Jews immigrated to the United States, and another 0.5 million left for other New World destinations, a mass migration surpassed in strength only by the Irish earlier in the century. Despite the intensity of Jewish migration, economic historians have paid little attention to this episode.[1] This is due, in part, to a lack of comparable data between Russia and the rest of continental Europe, but it also reflects the common belief that the exodus from Russia was a uniquely Jewish event and thus cannot be incorporated into a general model of migration as factor flows.

In this chapter, I argue that a confluence of demographic events, including population growth and internal migration from villages to larger cities, set the flow of Jewish migrants from Russia in motion. I further demonstrate that the timing of Jewish migration, once it had begun in earnest, was influenced both by periodic religious violence and by business cycles in the United States and Russia. Migration rates increased temporarily in the year after a documented persecution. In addition, by enlarging the stock of Jews living in the United States, many of whom joined emigrant aid societies or paid directly for their family's passage, temporary religious violence had modest long-run effects on the magnitude of the Jewish migration flow.

The Persecution Theory

Since the mid-eighteenth century, Jews in the Russian empire were forbidden to live outside the Pale of Settlement, an area that encompassed sections of Poland, Lithuania, Belorussia, and the Ukraine. The story of Jewish emigration usually begins with a full accounting of the pogroms, the anti-Jewish riots that swept through the Pale in the late nineteenth

and early twentieth centuries. The first major riot took place in Odessa in 1871, during the relatively liberal reign of Alexander II.[2] Following Alexander's assassination ten years later, anti-Jewish violence again broke out in the south, this time in the city of Elizavetgrad, and spread northward for the next five months.[3] In the aftermath, the government of the new Tsar, Alexander III, publicly blamed the Jewish victims for instigating the riots and responded by passing the "May Laws," which, among other restrictions, forbade Jews from settling in rural areas (Dubnow 1918, 284–323; Rogger 1986, 58–70).

The next two decades were relatively quiet for the Jews of Russia.[4] One exception was the expulsion of Jews from Moscow in 1891. Because Jews were technically not allowed to live in the capital, this event was more symbolic than substantial, but the event stands out in the collective memory of the Russian Jewish experience.[5] A new round of pogroms erupted in 1903 in the Bessarabian capital of Kishinev. With the 1905 Revolution came widespread attacks, which affected some 650 Jewish communities in a single week, including the large urban centers of Odessa and Bialystok (Lambroza 1992, 226).

Proponents of the persecution theory define the year 1881 as a turning point in both the oppression of Russia's Jews and in their migration patterns. Ruppin (1934), an early Jewish sociologist, asserted that whereas before the pogroms of 1881, "the individual Jew would make up his mind to emigrate," perhaps because of "impossible economic conditions," after that year, "a mighty stream of emigrants broke forth; individual thinking gave way to a mass impulse, almost to a mass psychosis" (44).[6]

Attributing the takeoff of migration in 1881 to pogroms in that year begs the question: why did mass migration only begin in 1881, despite the frequent flare-ups of anti-Jewish violence before this date? The Odessa pogrom of 1871 notwithstanding, Kuznets (1975) estimates that only 31,000 Russian Jews migrated to the United States in the 1870s, compared with the nearly 150,000 who arrived in the 1880s. Migration was similarly unaffected by an earlier era of persecution under Nicholas I (1825–1855), whose government conscripted Jewish boys as young as eight into the Russian army and forced many of them to convert to Russian Orthodoxy (Stanislawski 1983).

One explanation for this pattern is that international migration may have become feasible only after certain economic and demographic factors were in place. While Jews were subject to a web of restrictions in their everyday lives—forbidden from living outside the Pale or in certain

Figure 11.1
Annual Jewish migration from Russia to the United States, 1881–1924. Data from Joseph (1914), Ferenczi and Willcox (1929; 1932).

cities *within* the Pale, and from entering the professions—these constraints, on their own, may not have been enough to spark migration. An apt analogy is the migration of African-Americans from the South, which began in earnest only after 1915 despite decades of persecution under the Jim Crow laws.[7]

Furthermore, if the Jewish migration was solely a flight from violence rather than a search for higher wages or better living conditions, it should be subject to unique laws of motion, responding more to the dates of riots than to trends in economic variables. A first look at the pattern of Jewish migration seems to confirm a temporal relationship between migration and political hardship. Figure 11.1 annotates a graph of the annual migration flow of Russian Jews to the United States with important historical events. Immigration spiked in the 1891, the year that Jews were expelled from the Moscow, and again in 1904–1906, the turbulent years of the Kishinev massacre (1903), the Revolution of 1905, and the widespread riots of 1905–1906. This flow, which reached over 100,000 new migrants annually in the peak years of 1906 and 1914, came to a near standstill during the years of World War I and the Russian Revolution, rebounded slightly in the early 1920s, and was effectively halted with the immigration restrictions of 1924.

However, an emphasis on the uniqueness of the exodus from Russia obscures striking similarities between the timing of Jewish migration to

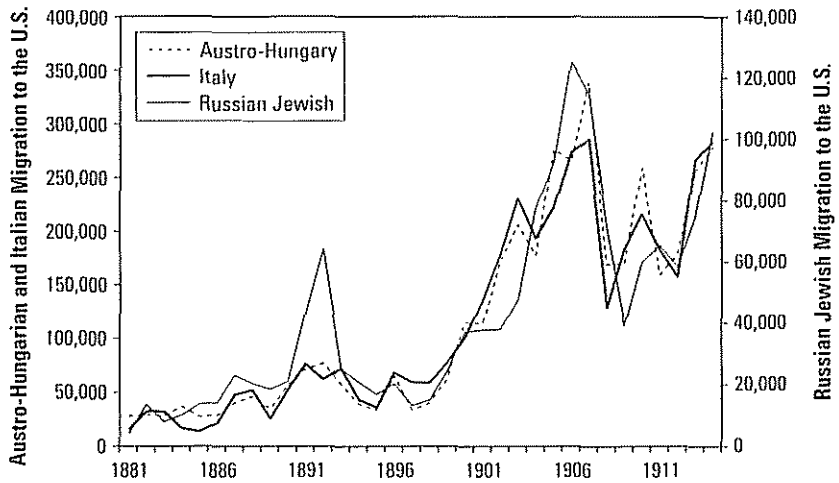

Figure 11.2
Annual Jewish migration from Russia to the United States, compared to other "new" migrant flows, 1881–1913. Data on Jewish entrants from Joseph (1914), Ferenczi and Willcox (1929; 1932); data on Italian and Austro-Hungarian migration flows from Ferenczi and Willcox (1929; 1932).

the United States and of other Eastern and Southern European migrant groups.[8] Figure 11.2 compares the annual migration flows to the United States of Russian Jews and of Austro-Hungarians and Italians in 1881–1914.[9] The correspondence between these time series is remarkable. This close relationship suggests that Jewish migration was sensitive to some of the same factors that drove migration from other southern and eastern European areas, with a likely candidate being economic conditions in the United States.

Economic and Demographic Determinants of Jewish Migration in the Long Run

In addition to political uncertainty and fear for physical safety, life in the Pale was marked by the demographic and economic pressures that are often associated with mass migrations. These include rapid population growth and a possible demographic transition, as well as urbanization, residential crowding, and ongoing industrialization. In this section, I suggest that it was the confluence of these forces rather than the violence in Elizavetgrad that ushered in an era of mass migration.

Demographic transitions are characterized by a burst of population growth as mortality rates, particularly those for infants and young children, decline in advance of reductions in fertility. Hatton and Williamson (1998) and Easterlin (1961) argue that demographic transitions may help explain the "long swings" of migration from Europe. Easterlin emphasizes that large cohorts crowd the home labor market, lowering wages and increasing the relative benefit of migration. Hatton and Williamson further suggest that, as the transition cohort reaches young adulthood, migration rates will increase simply because the young are more mobile.

Table 11.1
Population Growth among Jews and Non-Jews in the Russian Empire, 1825–1900

	Total (millions)				Growth Rates (annual percent)		
	1825	1850	1880	1900	1825–1850	1850–1880	1880–1900
Jewish							
Total	1.60	2.35	3.98	5.18	1.55	1.77	1.32
Lithuania, Belorussia	0.55	0.80	1.23	1.45	1.51	1.43	0.85
Congress Poland	0.40	0.58	1.01	1.33	1.46	1.88	1.40
Ukraine	0.63	0.93	1.60	2.20	1.58	1.84	1.61
Other	0.03	0.05	0.15	0.20	2.81	3.73	1.45
European Russia	49.8	61.6	85.6	111.2	0.85	1.10	1.32

Sources: Rows 1–5, Engelman (1949, 1185); row 6, Kuznets (1975, 63).

Rapid population growth in the Jewish community over the nineteenth century is consistent with the presence of an early demographic transition. Throughout the nineteenth century, the total Jewish population of Russia grew at annual rates far above the rest of the empire (table 11.1). The growth rate for the overall population did not catch up to the rate in the Jewish community until after 1880, when the increase in the Jewish population was slowed by out-migration.[10]

A better measure is the rate of natural increase, which is not confounded by differential migration patterns (except indirectly through changes in the age structure). While the information necessary to calculate rates of natural increase over time does not exist for the Russian Jewish community, comparable data exist for other areas of Central and Eastern Europe. Table 11.2 presents birth and death rates for the Jewish communities of Prussia and Romania, as well as for the country as a whole. At the time, Prussia was more urbanized than Russia, and Romania was less so. In both places, the Jewish community grew faster than the overall population for some period—in Prussia at least through 1840 and in Romania until 1900—after which the positions reversed. The phase of

Table 11.2
Vital Rates (per Thousand) for Jews and for the Total Population of Prussia and Romania, 1820–1915

	Jews			Total		
	Birth Rate	Death Rate	Natural Increase	Birth Rate	Death Rate	Natural Increase
Prussia						
1822–1840	35.5	21.6	13.9	40.0	29.6	10.4
1876–1880	31.7	17.6	14.1	38.9	23.6	15.3
1886–1890	23.9	16.1	7.8	37.3	24.3	13.0
1896–1900	20.4	14.3	6.1	37.1	21.4	15.7
1906–1910	17.0	13.7	3.3	32.5	17.3	15.2
1911–1913	15.3	13.8	1.5	28.9	15.9	13.0
Romania						
1881–1886	46.8	26.0	20.8	41.3	26.3	15.0
1891–1895	43.2	23.5	19.7	41.0	31.0	10.0
1896–1900	40.1	21.4	18.7	40.1	27.4	12.7
1901–1905	32.6	21.2	11.4	39.5	25.7	13.8
1906–1910	29.6	17.4	12.2	40.4	26.5	13.9
1911–1915	26.6	16.1	10.5	42.7	24.8	17.9

Source: Kuznets (1975, 63–64).

rapid growth can be attributed to low Jewish mortality rates. Silber (1980) reports that by the late nineteenth century, Russian Jews exhibited the low fertility and mortality characteristic of Prussia at mid-century.[11]

At the same time, the Pale was undergoing a process of rapid transformation from a society of small villages (*shtetls*) to one of large urban centers. By 1897, 77.8 percent of Jews in the Pale lived in incorporated cities or other commercial centers (*miestechkos*), compared with just 15 percent of the Pale's non-Jewish population.[12] This urban concentration was the result of a century of rural-urban migration. The urban Jewish population grew faster than the Jewish population as a whole. Table 11.3 summarizes the available sources for major cities in the Pale.[13] The Jewish population expanded rapidly both in cities like Vilna, Minsk, and Warsaw, which were already home to established Jewish communities in the late eighteenth century (row 1), and in the new cities of Odessa, Ekaterinoslav, and Kiev (row 2).[14]

The direction of the theoretical relation between rural-urban migration within a country and migration across national borders is ambiguous. On the one hand, moving to a regional hub or capital city could substitute for

Table 11.3
Growth of the Jewish Population for Cities in the Pale, 1790–1910

Vilna			Minsk			Warsaw		
Year	Number	Annual Growth Rate (%)	Year	Number	Annual Growth Rate (%)	Year	Number	Annual Growth Rate (%)
1797	7,000	—	1802	2,700	—	1800	8,000	—
1832	20,000	3.04						
1847	23,050	0.94	1847	12,976	3.55			
1875	40,000	1.98				1876	100,000	3.37
1897	63,996	2.15	1897	47,562	2.63			
1910	72,323	0.95	1910	45,103	−0.50	1908	277,787	3.24
Odessa			Ekaterinoslav			Kiev		
Year	Number	Annual Growth Rate (%)	Year	Number	Annual Growth Rate (%)	Year	Number	Annual Growth Rate (%)
1795	246	—	1804	320	—	1797	207	—
1855	17,000	7.32	1857	3,365	4.54	1863	3,013	4.14
1897	138,915	5.13	1897	40,009	6.38	1897	31,801	7.17
1904	152,634	1.35	1910	69,012	4.38	1910	50,792	3.82

Source: Baron (1964, 64–67).

emigration abroad. However, internal migration could also facilitate the overseas journey, for instance, by introducing a new arrival to migration networks or by providing access to transportation. In the Russian Jewish case, one important effect of rural-urban migration was the weakening of the strong religious and communal bonds of *shtetl* life. After making their first break from traditional communal life, young people found it easier to take the larger leap to America, a step that was often shunned by village religious and community leaders.[15]

Given that demographic transition and rural-to-urban migration are both slow, long-run processes, might we need to appeal to pogroms to explain the sudden takeoff of Jewish migration in the 1880s? Not necessarily. Exponential growth is a common feature of many mass migrations, even from source areas without sudden catastrophic events, because of chain migration. Carrington, Detragiache, and Vishwanath (1996) have modeled this process as an endogenous decline in migration costs, whereby early migrants facilitate future waves by sending information and prepaid passage and by smoothing the transition to a new society. In such a framework, oppression can persist indefinitely without migration if

the right economic conditions are not in place to encourage "pioneer" migrants, and conversely, migration can take off once it begins.

Explaining Annual Jewish Migration Rates: The Roles of Economic Opportunity and Religious Persecution

The previous section concerned the necessary conditions for a mass migration to begin. In this section, I turn to the timing of population flows once migration has started. I rely for my empirical framework on Hatton and Williamson's model of migration timing. The model posits that migration in a given year is driven by relative economic conditions in the sending and receiving countries and the size of the migrant stock in the destination area.[16] I find that this simple model, which includes only economic and demographic variables, is equally adept at explaining Jewish migration as at accounting for other European migrations. However, religious persecution is another important determinant of the timing of Jewish migration, with years after recorded violence posting above-trend migration.

Econometric Framework

Following Hatton and Williamson (1993, 1998) and Hatton (1995), I estimate a time series equation relating the emigration rate of Russian Jews to the United States to key economic variables. The equation is:

$$\begin{aligned} M/P_t = {} & a_0 + a_1 \Delta \log(ER_f)_t + a_2 \Delta \log(ER_h)_t + a_3 \Delta \log(W_f/W_h)_t \\ & + a_4 \log(ER_f)_{t-1} + a_5 \log(ER_h)_{t-1} + a_6 \log(W_f/W_h)_{t-1} \\ & + a_7 \log(MST/P)_t + a_8 (M/P)_{t-1} + \varepsilon_t \end{aligned} \quad (1)$$

where M/P is the Russian Jewish emigration rate, ER_f is the foreign (U.S.) employment rate, ER_h is the home (Russian) employment rate, W_f and W_h are the foreign and home real wages, MST is the stock of Jews living in the United States, and P is the Russian Jewish population.

Relative economic conditions are entered here as a ratio, constraining the coefficients on home and foreign variables to be equal and opposite, and thus emphasizing the comparative aspect of the migration decision. Alternatively, home and foreign conditions can be entered separately, either because migrants have more accurate information about home country wages or because economic conditions are measured with less error in the United States.

The specification includes two measures of chain migration—the migrant stock and the lagged dependent variable. The migrant stock measures the size of the whole émigré community, and the lagged dependent variable mirrors the fact that more recent migrants may have stronger ties to the home country.

To explore the importance of pogroms in the timing of Jewish migration, I focus on the following dates suggested by the historical literature: 1891, the year Jews were expelled from Moscow; 1903, the year of the Kishinev massacre; and 1905–1906, the period of pogroms following the 1905 Revolution. One simple test of the importance of religious persecution is to augment the model with dummy variables for the years in question, which will indicate whether the population outflow is significantly off-trend. Because the effect of a riot might not have been immediate, especially if prospective migrants needed to save money for their journey, I consider three specifications, respectively allowing an event in year t to have effect on migration in year t only, in year $t + 1$ only, or in both years $t + 1$ and year $t + 2$.

Measuring Jewish Migration

The model is estimated on annual data from 1886 to 1913. Because emigration was technically illegal, Russian officials never recorded the number of Jews leaving the empire (Rogger 1986, 176–187). I approximate emigration with gross annual *immigration* of Russian Jews to the United States, a reasonable proxy given that the United States absorbed 75 percent of the migrant flow and that return migration was very minor (Lestchinsky 1949; Gould 1980).[17]

Jewish immigration to United States is available from two sources: from 1881 to 1899 it must be inferred from the records of emigrant aid societies, and after 1899 the federal Immigration Service began counting Jewish migrants separately (under the category "Hebrew"). For the earlier period, I use figures compiled by Joseph (1914) for three ports—New York, Philadelphia, and Baltimore—which together account for the majority of Jewish arrivals.[18]

Arrivals were classified as "Hebrew" by the Immigration Service if they declared Yiddish as their mother tongue. According to the 1897 Census, 97 percent of Jews in the Russian empire met this criterion (Rubinow 1907, 488). Jews rarely left from Russian ports but rather sailed via Germany, France, and the United Kingdom.[19] Because the Immigration Service collected data by country of departure rather than country of last

residence, these counts must be revised. I rely on Godley's adjustments (2001, 73–79).

Measuring the Determinants of Migration

Economic conditions in source and destination countries are measured here by wages and unemployment rates, which together can be conceptualized as a migrant's expected wage (Harris and Todaro 1970). I use real series of unskilled wages in the United States and factory wages in Russia (Williamson 1995; Gregory 1982). To adjust the Russian wages for purchasing power parity, I use food and rent prices for Moscow in 1913 and nationally representative expenditure budgets for Russia in 1927 (Zaleski 1955; *Workers' Family Budget* 1929).[20] The resulting calculations suggest that Russian factory wages around the turn of the twentieth century embodied 40 percent of the purchasing power of unskilled wages in the United Kingdom and only 30 percent of those in the United States.

I take estimates of the Jewish population from the *American Jewish Yearbook* to measure the stock of previous migrants in the United States. This value includes not only recent arrivals from Eastern Europe but also members of the earlier German immigrant wave. While the established German Jews often snubbed Eastern Europeans socially, they were also instrumental in funding emigrant aid societies (Rischin 1962).[21]

Estimation Results

I estimate the determinants of annual Jewish migration rates sequentially, starting only with economic variables, adding measures of chain migration, and finally supplementing the model with indicators of religious violence. In other words, I ask whether migration rates were above trend during episodes of persecution, given the prevailing economic conditions and the underlying logic of the migration chain.

The results of the time series estimation are presented in table 11.4. Column 1 includes only measures of the business cycle in the United States and Russia, and the wage ratio between the two countries. In a fuller specification (not shown), I include both contemporaneous and lagged variables. Migration rates respond to economic conditions in the current period in Russia and previous period in the United States, a pattern that is consistent with slow flows of information. I also include changes of all variables, of which only changes in U.S. employment rates

Table 11.4
Determinants of Emigration Rates of Russian Jews to the United States, 1886–1913

	Levels			Changes
	(1)	(2)	(3)	(4)
ln (U.S. employment rate), $t-1$	148.764	119.521	90.669	198.532
	(37.129)	(38.245)	(30.639)	(46.348)
Δ ln (U.S. employment rate)	56.765	57.938	39.024	87.214
	(36.869)	(32.427)	(27.518)	(29.296)
Deviation from log trend, Russian NNP, $t-1$	−64.869	−30.024	−25.376	−32.742
	(19.945)	(20.035)	(16.269)	(15.992)
ln (U.S./Russian wages), $t-1$	34.584	4.795	—	—
	(7.369)	(11.907)		
ln (Jewish stock in U.S./ Russian Jewish population), $t-1$		3.821	4.787	26.778
		(2.263)	(1.136)	(34.682)
Migration rate, $t-1$		0.466	0.244	
		(0.229)	(0.189)	
Migration rate, $t-2$		−0.202	−0.114	
		(0.180)	(0.140)	
Event 1 (1891)			5.342	5.184
			(2.364)	(2.633)
Event 2 (1903)			4.932	8.483
			(2.441)	(2.639)
Event 3 (1905–1906)			6.182	−1.819
			(2.256)	(2.063)
Constant	−710.738	−537.203	−397.975	−1.772
	(168.051)	(170.224)	(138.588)	(2.402)
N	28	28	28	28
R^2	0.727	0.838	0.911	0.643
Breusch-Godfrey (p-value)[a]	0.078	0.828	0.732	0.053
Dickey-Fuller	−3.785[b]	−5.014[b]	−4.966[b]	—
Augmented D-F (4 lags)	−2.044[b]	−2.868[b]	−2.444[b]	—

Notes: Standard errors shown in parentheses. The dependent variable is the number of Russian Jewish immigrants to the United States divided by the total Russian Jewish population (Joseph 1914; Ferenczi and Willcox 1929; 1932; Kuznets 1975). The explanatory variables are U.S. employment rates (Vernon 1994; Lebergott 1957); Russian net national product, deviated from its fitted log trend (Gregory 1982); and the Jewish population in the United States (*American Jewish Yearbook*). The measures of religious persecution (events 1–3) are indicator variables for the years following recorded events.

a. The null hypothesis of the Breusch-Godfrey test of no auto-correlation is accepted in all cases, strongly in columns 2 and 3 and weakly in columns 1 and 4.

b. Significant at the 5 percent level. The critical value at that level for the Dickey-Fuller tests for cointegration is −1.95.

are a significant predictor of migration. In the reported results, I include the limited set of variables found to significantly affect migration. Higher employment and wages in the United States encouraged migration, as did improvements in employment, whereas better economic conditions in Russia discouraged it. When I break apart the wage ratio into U.S. and Russian wages, it appears that Jewish migration was responding only to wages in the United States (coeff. = 44.919, s.e. = 7.216).

The estimated pull of higher wages is not robust to adding a measure of the stock of Jews living in the United States (column 2). Both variables are increasing steadily throughout this period, and neither can be distinguished from a simple time trend. We can think of the stock measure as an economic interpretation of a time trend, that is, an explanation of why migration rates should be higher under equivalent economic conditions in the middle of a migration wave than at its inception. Column 2 also includes two lags of the migration rate, the first of which is large and positive.

The weakness of the wage ratio as a determinant of migration may be due to the fact that the wages series used are not representative of Jewish economic opportunities. Because the majority of Jewish immigrants worked in skilled handicrafts—tailoring was particularly common—the unskilled wage may not reflect relevant wage rates in the United States (Hersch 1931; Kahan 1978; Chiswick 1992). In addition, factory wages in Russia are available only for Moscow and St. Petersburg, which were unlikely to follow the same time trends as wages in the Pale.

We have scattered evidence that wage *levels* in cities like Vilna and Kiev were comparable to those in Moscow or St. Petersburg (Rubinow 1907). However, Russia's capital cities were receiving large migration flows from the surrounding countryside, likely suppressing wages there, while cities in the Pale were net exporters of labor.[22] Theory tells us that wages should rise in a source country as out-migration reduces the supply of labor. Migration should thus be a force for convergence. In contrast, the factory wage series for Moscow and St. Petersburg is stagnant over this period, while wages in the United States rise steadily.

Given these caveats, better measures of economic opportunities are employment rates, which receive the expected sign and are significant in all specifications. The economic determinants of Jewish migration are presented graphically in figure 11.3, which charts the migration rate against deviations from Russian NNP and from the U.S. employment trend. The time series correlations are apparent here. Migration rates spike in the early 1890s, when the Russian economy performs far below

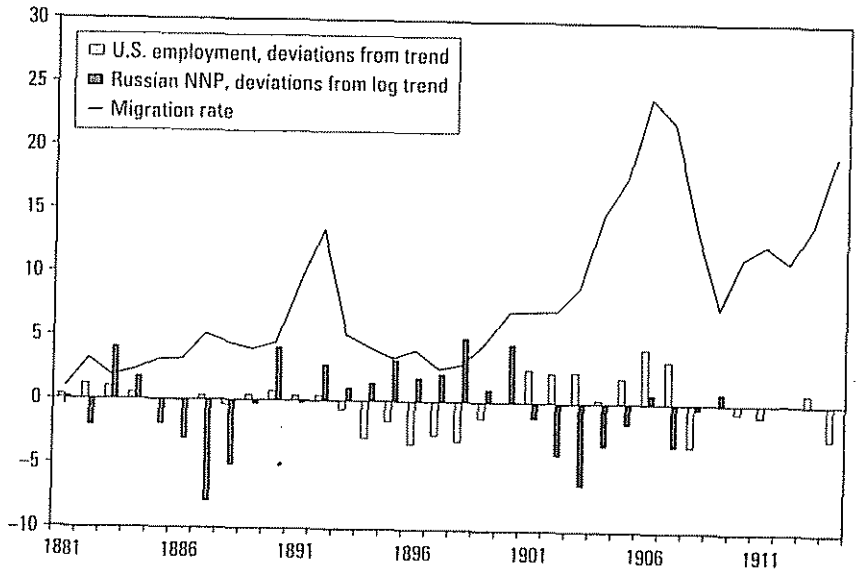

Figure 11.3
Annual Jewish immigration rates from Russia to the United States, compared to employment in the United States and Russian net national product, 1881–1913. U.S. employment rates are deviated from a linear trend, and Russian NNP from a logarithmic trend. Data on Jewish entrants from Joseph (1914), Ferenczi and Willcox (1929; 1932); Jacob Lestchinsky's estimates of the Russian Jewish population are used to convert flows into rates (Kuznets 1975); U.S. employment rates from Vernon (1994) and Lebergott (1957); Russian net national product (NNP) from Gregory (1982).

trend, and again in 1904–1907, when the Russian economy is underperforming and U.S. employment is high.

It is interesting that both periods of extreme economic hardship in Russia coincide with recorded violence against the Jewish community. On the one hand, this temporal link suggests that ignoring the economic fundamentals may lead to an unwarranted overemphasis on the role of pogroms. On the other hand, the correspondence of religious violence with economic downturns may not be accidental. Riots may have started as displaced workers attacked Jewish communities that they blamed for their hardships.[23] Some argue that pogroms were implicitly or explicitly supported by the Russian state as an outlet for dissatisfaction that may have otherwise led to political unrest.[24] If pogroms are endogenous to economic downturns, it becomes more difficult to definitively separate the role of these two factors.

With this economic/demographic model of migration timing in place, I include indicators of religious violence in the third column. In various

specifications (not shown), I allow the migration response to occur either in the event year or in the two years following an event. While migration rates are no higher in pogrom years themselves, they are significantly above trend in the year following such persecutions, and return to normal by the second post-pogrom year. The coefficients in column 3 indicate that migration rates increase by roughly five per thousand after each event, or nearly a full standard deviation (the mean migration rate in 1881–1913 is nine per thousand).

Interestingly, there is no evidence that migration rates responded to the severity of violence. There were no recorded deaths in the expulsion of Jews from Moscow, and only 45 deaths and 86 serious injuries reported in the 1903 pogroms; compare these figures to the 1,000 deaths and 7,000–8,000 wounded in 1905–1906 (Baron 1964, 57). Despite the fact that the number of casualties was an order of magnitude higher, the migration response in 1905–1906 was only 1.3 times larger than in 1891 or 1903. Jewish migrants may have been responding to rumors or a climate of fear rather than the true risk of personal harm.

To test the robustness of the pogrom response, I rerun the regression in first differences in the fourth column. The relation between migration rates and economic variables does not qualitatively change, but the Jewish stock variable is no longer significant. As before, the increase in migration rates in 1891–1892 and 1903–1904 are above trend. However, in changes, there is no demonstrable effect of the 1905–1906 pogroms, perhaps because it is hard to distinguish the 1905–1906 period from surrounding events, including the 1903 pogroms and the 1904–1905 Russo-Japanese war.

One way to disentangle the effect of pogroms from concurrent political events is to compare out-migration by region. Anti-Jewish violence was concentrated in the southern provinces, with 87 percent of the 1905–1906 riots occurring in the Ukraine or Bessarabia (Lambroza 1992, 230). While the immigration statistics do not distinguish newcomers by province, the 1920 U.S. Census asked the foreign-born to specify not only their country of origin but also their region of origin because of changes in European boundaries following World War I (Ruggles et al. 2004). Using the same criterion as contemporary immigration officials, I classify all immigrants who declare Yiddish as their mother tongue as Jews.

Figure 11.4 graphs the number of Jewish immigrants from either the violence-prone southern provinces (the Ukraine and Bessarabia) or the northern provinces (Poland and Lithuania) by year of entry into the United States.[25] From 1880 to 1900, immigration from these two regions

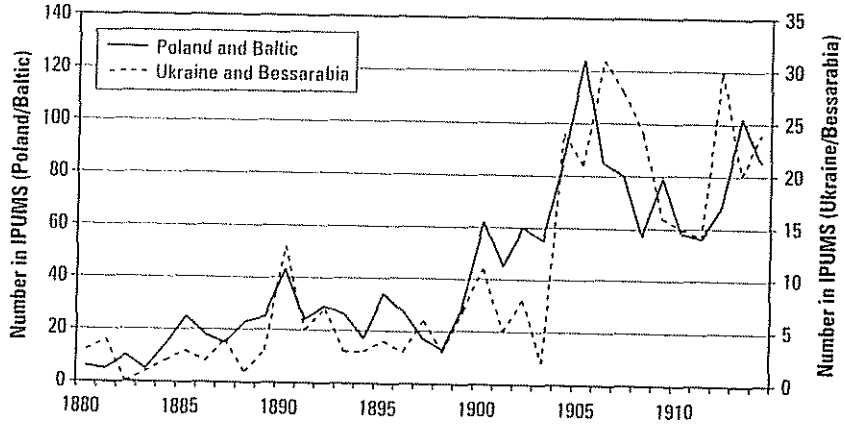

Figure 11.4
Estimated Jewish in-migration from the Russian Empire to the United States, by province, 1880–1914. Individual records from Ruggles et al. (2004). Immigrants are classified as Jewish if indicating mother tongue of Yiddish, Jewish, or Hebrew. Jewish immigrants are categorized by year of entry and place of birth.

moves in virtual lock step. From 1900 to 1903, relative southern immigration wanes. In the two postpogrom years (1903–1904 and 1905–1906), immigration from the south rebounds, in each case experiencing a change twice as large as in the rest of the Pale. However, these sharp increases only return the southern trend to that of the rest of the Pale. There is no evidence that immigration rates from the Ukraine and Bessarabia outstripped those from the rest of the Pale in the early 1900s, suggesting that the surge in migration was, in part, an empirewide phenomenon, reflecting the general turmoil surrounding the Revolution of 1905.

Magnitudes and Counterfactuals

Business cycles account for much of the volatility in migration rates. The lowest U.S. employment rate over a three-year stretch was 92 percent in the mid-1890s, and the highest was 97 percent ten years later. This five percentage point increase in employment rates is associated with an additional 4.5 migrants per thousand Russian Jews.

To evaluate the effect of chain migration, I follow Hatton and Williamson (1993) and assume that, in the long run, all economic variables and migration are in steady state (that is, I set changes equal to zero and equate M/P_t to M/P_{t-1}). Long-run coefficients are thus $a_x/(1 - a_8)$. Nearly one-half of the long-run rise in Jewish migration can be explained

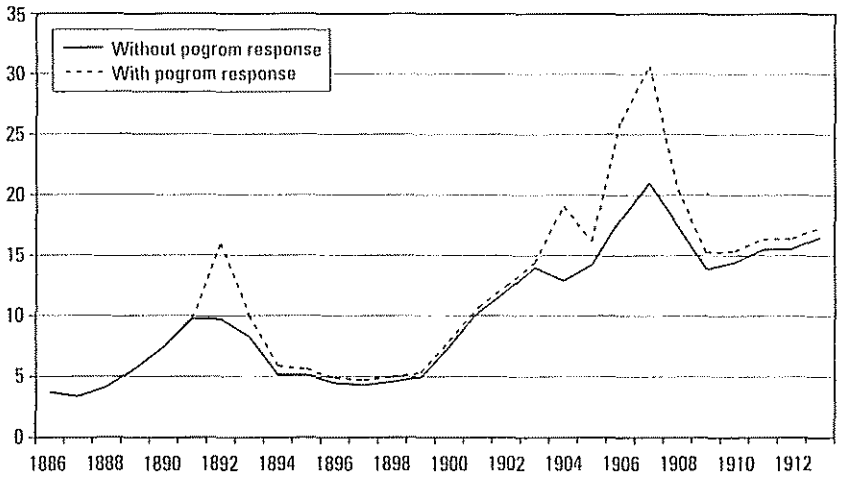

Figure 11.5
Simulated Jewish immigration rates from Russia to the United States, with and without pogrom response, 1881–1913. Annual migration rates are simulated using the coefficient estimates from table 11.4 (column 3) and actual data on economic conditions. Measures of total Jewish stock and previous year's migration flow are updated in each year.

by an increase in the stock of Jews living in the United States. In the 1880s there were seven Jews in the United States for every 100 Russian Jews. By the 1900s there were an average of 23 for every 100. The migration rate increased accordingly from 3 to 13 per thousand. If the Jewish stock had remained at seven per 100 through the 1900s (70 percent lower than it was), the average migration rate in that decade would have been 4.4 persons per thousand lower (= (4.787/0.753) · 0.7).

The effect of a pogrom shock on the migration flow appears to die out after a single year. However, these short-term shocks can have long-run effects by increasing the stock of Jews living in the United States. Figure 11.5 assesses the strength of this channel by simulating annual migration rates using the coefficient estimates from table 11.4 (column 3). The first scenario allows for the estimated migration response after years of persecution, and updates the measure of the total Jewish stock and the previous year's flow accordingly.[26] The second omits the pogrom response and imagines that migration was determined only by prevailing economic conditions. In comparing these two scenarios, it is clear that the dominant effect of religious persecution is in the year immediately following an event, in which the pogrom-response migration rate is around 50 percent higher than the no-response rate.[27] After two years, the persecution rate

falls to within 9 percent of its no persecution counterpart, but because of the effect on the migrant stock, the two rates never fully converge. The comparison suggests that even after the initial migration response waned, an additional 18,900 Jews arrived in the United States who would not otherwise have made the journey in the ten years after the expulsion from Moscow (1894–1903).[28] The combined long-run effect of the Kishinev pogroms and the 1905–1906 turbulence was the sending of an additional 31,500 migrants from 1910 through 1913.

Assessing the Circumstantial Evidence for the Persecution Theory

Proponents of the persecution theory point to features of Jewish migrants—including their tendency to move in family units and their high rates of emigration relative to other ethnic groups in the Russian empire—as indirect evidence of the importance of religious persecution. Indeed, women made up 43 percent of Jewish entrants to the United States from 1899 to 1910, compared to only 31 percent of the total immigrant flow. Furthermore, while Jews comprised only 4 percent of the total population of the Russian empire, they represented nearly 50 percent of its intercontinental migration (Joseph 1914, 176–182). I argue here that neither of these facts are incompatible with the notion of Jews as economic migrants.

The underlying assumption of the first claim is that, because men are able to earn more than women, we should expect economically motivated migrants to be predominately male. The presence of women and children then becomes an indicator of a flight from violence or famine. If this is the case, we would expect there to be more women from those regions and during those periods in which Jews were subject to heavy persecution. Table 11.5 indicates that, within the Russian empire, Jews from the violence-prone southern provinces were more likely to send female migrants than Jews from Poland, but were *less* likely than Jews from the Baltic states to do so. Furthermore, Russian Jewish migrants as a whole were less likely than Jewish migrants from the relatively peaceful areas of Austro-Hungary, Romania, or Western Europe to be female.[29]

Was the female share of the migrant flow higher during known periods of persecution? Figure 11.6 plots three-year moving averages of the female share of Russian Jewish migrants by year of entry into the United States. The "pioneer" migrants arriving in the 1880s were predominately male.[30] The female share increased rapidly over this decade, peaking in 1893–1894 at 53.2 percent, perhaps as the first settlers sent for their

Table 11.5
Share of Jewish Migrant Stock in the United States That Is Female, by Region of Origin, 1920

	Share Female	Frequency
Russian Empire		
Baltic states	0.508	256
Russian Poland	0.463	579
Ukraine and Bessarabia	0.487	314
Russia, other	0.474	6,218
Outside of Empire		
Austro-Hungary	0.505	988
Romania	0.521	315
Western Europe and other	0.515	190

Source: Individual records from the 1920 integrated microsample of the U.S. Census (Ruggles et al. 2004).
Note: Immigrants are classified as Jewish if they indicate a mother tongue of Yiddish, Jewish, or Hebrew. Sample limited to arrivals between 1890 and 1914.

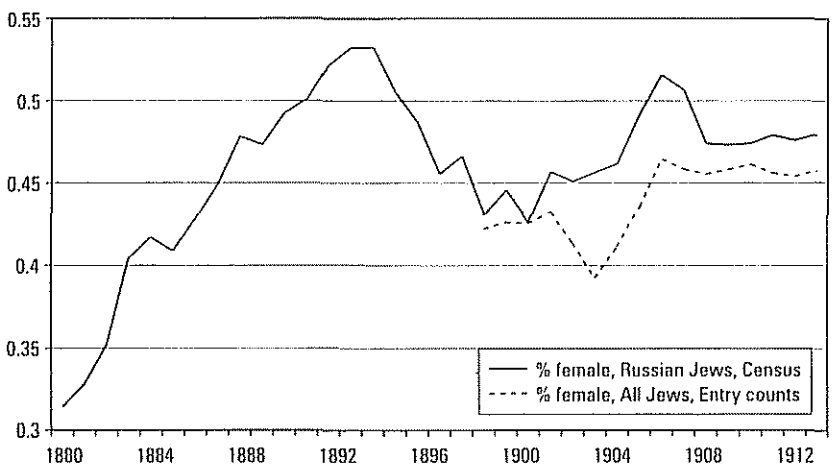

Figure 11.6
Female share of Russian Jewish immigrants to the United States, three-year moving averages, 1880–1914. For Russian Jews, the female share is calculated from the 1920 integrated micro-sample of the US Census Ruggles et al. (2004). Immigrants are classified as Jewish if indicating mother tongue of Yiddish, Jewish, or Hebrew. Russian empire includes Russian Poland, the Baltic States, Belorussia, the Ukraine, Bessarabia, and a large "other Russian" category. For comparison, also included is female share of all "Hebrew" immigrants, as collected by the Immigration Service from 1899 to 1914 (Ferenczi and Willcox 1929; 1932).

families. Following the panic of 1893 and the ensuing recession in the United States, the female share fell by 10 percentage points. By the mid-1900s, the female share had recovered. It is hard to disentangle the effect of the 1905–1906 pogroms from a temporary period of family reunification following the earlier recession. Whatever the case, it is clear that variation in the female share over time does not seem to be primarily driven by the time pattern of religious persecution.

A high female migration rate appears to be a feature of Jewish migration across areas and time periods. One explanation might be the cultural norm of endogamy, which persisted in the New World (Goldscheider and Zuckerman 1984). Another motivation might be the high labor force participation of women and children, who made up 30 percent of the Jewish labor force in the Pale in 1897 (Rubinow 1907, 524). Once arriving in the United States, Jews concentrated in the garment industry, whose decentralized structure allowed Jewish families to "use more of the labor resources of the household members [than] would have been possible within the framework of factory employment" (Kahan 1978, 240).

What should we make of the fact that Jews had higher emigration rates than any other group in the Russian empire? From 1899 to 1914, members of Russia's other ethnic minorities, including Poles, Lithuanians, Finns, and Germans, migrated to the United States at a rate of five per thousand, which is comparable to Jewish figures in the 1880s. Because it is common for migration to follow an inverted U-shaped pattern—accelerating with chain migration and eventually declining with wage convergence between source and destination—it is reasonable to imagine that this outflow would have continued were it not for the outbreak of World War I (Hatton and Williamson 1998). Thus, it may be more accurate to call Jews the first, rather than the only, ethnic group to leave the Empire.

Furthermore, while few ethnic Russians left the empire altogether, there were substantial population movements within the empire, both to the main cities of St. Petersburg and Moscow and to the eastern frontier. In the decade of the highest Jewish migration (1900s), the average rate of internal migration to Asiatic Russia was two per thousand from 1900 to 1904; it jumped to eight per thousand in the turbulent period after the 1905 Revolution (1905–1909).[31]

Conclusions

The timing of Jewish migration, like that of other migrations to the New World, responded to economic conditions. Jewish migration was

particularly influenced by the health of the United States economy, perhaps because of its role as a financial constraint on migration networks. The single most important factor in the growth of out-migration rates from the Russian Jewish community was the size of the Jewish population in the United States. The path dependence of chain migration suggests that religious violence had both short- and long-term effects. Not only did migration notably increase in the years after anti-Jewish riots but the migration path was thereafter modestly higher due to the larger stock of Jews living in the United States. The power of the Hatton-Williamson model to explain annual Jewish migration rates casts doubt on previous attempts to set apart Jewish migration history from the context of European migrations to the New World.

Notes

This chapter grew out of Jeffrey Williamson's World Development course at Harvard University. I am indebted to his encouragement and intellectual guidance. I also acknowledge helpful comments from David Clingingsmith, Andrew Godley, Claudia Goldin, participants at Harvard's Graduate Economics History Tea, and the editors of this volume. Robert Allen kindly provided data on Russian wages.

1. Notable exceptions are Kuznets's (1975) thorough descriptive work and a section in Godley's (2001) book on Jewish entrepreneurial culture.

2. Odessa was also the site of smaller anti-Jewish riots in 1821, 1849, and 1859 (Klier 1992, 15–21).

3. Aronson (1990, 50–56), catalogs the anti-Jewish violence of 1881–1882 by date, province, and village.

4. Of this period, Dubnow (1918) writes: "Beginning with June, 1882, the pogroms assumed more and more a sporadic character.... In the course of the next twenty years, until the Kishinev massacre of 1903, no more than ten pogroms of any consequence may be enumerated, and these disorders were all isolated movements, with purely local coloring, and without the earmarks of a common organization or the force of an epidemic, such as characterized the pogrom campaigns of 1881, or those of 1903–1905." Löwe (2004) adds that over 95 percent of Russian pogroms occurred in either 1881–1882 or 1905–1906.

5. In 1881, only 53,574 Jews lived in the interior provinces, which establishes an upper bound on the number who may have lived in Moscow (Klier 1992, 5). Other estimates of the number exiled from Moscow range from 1,500 people to 14,000 heads of households (Baron 1964).

6. For a more complex reading of the events of 1881, see Frankel (1983). While he deems the year to be "of unique importance in modern Jewish history," he believes that the "shock of the pogroms ... accelerate[d] existing processes" rather than conjuring up the desire to migrate out of thin air (9,12). The existing processes he has in mind include Russian anti-Semitism, nascent Jewish emigration financed, in part, by Western funds, and an intellectual defense of Jewish self-determination.

7. Collins (1997) argues that African-American migration was delayed by the steady arrival of European migrants, taking off only as World War I bolstered the demand for industrial workers while simultaneously shutting off the immigrant labor supply. On the inadequacy of the persecution theory to explain black migration, see also Vickery (1977, 36–37).

8. This pattern was first noted by Hersch (1931), who noted that "Jewish immigration paralleled the total immigration to the United States" and concluded that "Jewish immigration arose partly from general causes ... and partly from circumstances peculiar to the life of the Jews" (475).

9. The data underlying this series are from Ferenczi and Willcox (1929, 384–393). Jews made up 9 percent of Austro-Hungarian migration from 1881 to 1910 (Joseph 1914, 110).

10. The fastest population growth in the Pale was in the Ukraine, and the slowest in the northern areas of Lithuania and Belorussia. This disparity could be due to internal migration to the Ukrainian cities of Odessa and Kiev or to higher outmigration rates from the North (Stampfer 1986).

11. While the growth paths of Jewish population in Prussia and Romania are consistent with an early demographic transition, some demographers argue that the Jewish community had *already* achieved a low fertility–low mortality equilibrium by the early nineteenth century because of its "absence of drunkenness, high standards of hygiene, devotion to children and close family ties" (Kuznets 1975, 67–68). For a synthesis of these two views, see Schmelz (1971).

12. Rubinow (1907, 493); Kuznets (1975, 70–71). The data come from the Russian census of 1897 and a private study conducted by the Jewish Colonization Society in 1898. The figure for the non-Jewish population of the Pale is imputed from the values for the Jewish and total populations.

13. Parenthetically, there is limited evidence for the importance of the 1882 May Laws, which prohibited Jews from settling in rural areas. The Jewish population of Vilna, which has the highest frequency data, grew at similar rates before and after the laws were promulgated (compare an annual growth rate of 1.98 from 1847 to 1875, and 2.15 from 1875 to 1897).

14. Jews were forbidden to live in the city of Kiev, though they were allowed to live in the surrounding province. This restriction, however, was not well enforced. On the legal prohibition, see Dubnow (1918, 151), and on its application, see Anderson (1980, 175).

15. Goldscheider and Zuckerman (1984, 100, 164). Some religious leaders condemned America as the *trayfa medina*, or impure land.

16. The microfoundations underlying this model can be found in Hatton (1995). Empirical applications are presented in Hatton and Williamson (1993, 1998).

17. Data on return flows from the United States are available only after 1908. The Jewish repatriation ratio in this period was 7.11 percent, the lowest of any European nationality or ethnic group (Gould 1980, 60). To convert the migrant flow into a rate, I divide by Lestchinsky's estimates of the Russian Jewish population, interpolated between decades (Kuznets 1975, 50). Annual migration series to two of Jews' other top destinations, Canada and Argentina, are available only from 1900 or 1904 onward (Hersch 1931).

18. The data underlying Joseph's (1914) figures were collected by the United Hebrew Charities in New York (1886–1899), the Association for the Protection of Jewish Immigrants in Philadelphia (1886–1899), and the Hebrew Benevolent Society of Baltimore (1891–1899). I use Godley's (2001) revisions to Joseph's data, which adjust for arrivals to other ports.

19. Wischnitzer (1948, 68) provides a detailed map of Jewish migration patterns out of Russia. Migrating in stages via other European ports was a common practice because of the nominal ban on emigration from the empire.

20. I thank Bob Allen for suggesting these data sources and discussing the PPP adjustment. These calculations rest on the strong assumption that prices in Moscow are representative of the country as a whole, and that postrevolutionary expenditure shares can be cast back to the 1880s.

21. Godley (2001) also applies the Hatton-Williamson model to Jewish migration from the Russian empire. His interest is primarily in comparing the Jewish migration flow to the United States and the United Kingdom, and thus he does not include indicators of anti-Jewish violence. A few other differences are worth noting. Godley uses per capita income in

European Russia as a proxy for standards of living, rather than factory wages. He also limits his definition of the migrant stock to Eastern European Jews in New York City, overlooking German Jews and Jews in the rest of the country. As a result, he finds that the migration rate was unaffected by the size of the migrant stock, which is at odds with the bulk of empirical work on European migration and with what we know of the Jewish migration experience from social histories.

22. To the best of my knowledge, there are no extant wages series for cities in the Pale at the turn of the century.

23. Aronson (1992) describes the economic context surrounding the 1881 Ukrainian pogroms as follows: "Landless peasants ... were attracted to the relatively richer Ukraine from all over Russia.... New arrivals were unusually numerous in the spring of 1881, since an industrial depression ... threw many factory hands ... in Moscow and St. Petersburg out of work.... [In addition] local crop failures ... led to near-famine conditions." See also Legge (1996) on an economic theory of anti-Semitism.

24. For a contrary view, see Rogger (1986, 28–33).

25. 78.6 percent of Jewish immigrants from the Russian empire in the 1920 Census do not indicate their province of birth. This comparison may be imperfect, then, given that it includes only the 21.4 percent who do.

26. In addition to adding the simulated migration flow to the stock, I allow the stock to grow by 3 percent in every year due to natural increase and the in-migration of Jews from the rest of the world.

27. The simulations in figure 11.5 do not include the twice-lagged migration rate, which is never statistically significant. When the negative effect of the twice-lagged rate is taken into account, the two migration rates converge soon after the date of a known pogrom (not shown). Thus, the figure represents an upper bound on the long-term effect of religious persecution.

28. From 1894 to 1903 the pogrom-response migration rate was, on average, 0.39 per thousand higher in each year than was the no-response rate. The Russian Jewish population was around 4.8 million in this decade, implying that in the long run the expulsion from Moscow led to the arrival of an additional 1,900 Jewish migrants in every year (= 0.39 × 4,800).

29. 47.7 percent of Jewish migrants who entered the country between 1899 and 1910 and were enumerated in the 1920 Census were female, compared to 43 percent of new arrivals tallied by the Immigration Service over the same period. This disparity could be due to higher rates of male mortality.

30. Recovering the female share of the migrant flow from the 1920 Census will be increasingly biased because of differential mortality by gender the further one goes back in time. In 1920 the average Jewish immigrant who entered the United States in 1880 was 56.5 years old. If anything, this mortality will bias the female share in the 1880s upward, implying an even *larger* male majority among pioneer migrants.

31. Anderson (1980, 203) presents internal migration rates to Asiatic Russia in five-year intervals from 1885 to 1909 by province of origin. Migration to the agricultural frontier is an underestimate of total population mobility.

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12 Inequality and Poverty in Latin America: A Long-Run Exploration

Leandro Prados de la Escosura

Latin America is today the world region in which inequality is highest, with an average Gini coefficient above 50 during the last four decades of the twentieth century (Deininger and Squire, 1996; 1998). A stable income distribution in the early postwar period worsened after 1980 (Altimir 1987; Morley 2000). Furthermore, no significant improvement in the relationship between income distribution and economic growth has taken place during the last decade (Londoño and Székely 2000), and inequality remains high despite episodes of sustained growth (ECLAC 2000).

Is today's high inequality a permanent feature of modern Latin American history? How has inequality affected poverty in the long run? These are pressing questions for social scientists. Unfortunately, no quantitative assessment of long-run inequality has been carried out for Latin America, except for Uruguay (Bértola 2005), but the perception of unrelenting inequality deeply rooted in the past is widespread (see, for example, Bourguignon and Morrisson's (2002) assumptions).

In this chapter I first examine long-run trends in inequality in modern Latin America and then, on the basis of trends in inequality and growth, make a preliminary attempt at calibrating their impact on poverty reduction.

When did inequality originate, and why has it persisted over time? Alternative interpretations have been put forward. Those that emphasize its colonial roots are worth stressing. According to Engerman and Sokoloff (1997), initial inequality of wealth, human capital, and political power conditioned institutional design, and hence performance, in Spanish America. Large-scale estates, built on pre-conquest social organization and an extensive supply of native labor, established the initial levels of inequality. In the post-independence world, elites designed institutions protecting their privileges. In such a path-dependent framework government