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Ethnicity and Education: College Attendance Patterns Among Early 20th-Century Maine's Immigrant Community

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Abstract: I examine the college attendance patterns of second-generation Russian-Jewish immigrants in Maine in the early 20th century relative to other ethnic groups using individual-level Census records. I employ the Abramitzky, Boustan, and Eriksson (ABE) algorithm to track second-generation Jewish, Italian, French Canadian, English Canadian and European immigrants from the 1910 Census to the 1940 Census. My logistic regression analysis indicates that second-generation Jewish immigrants in Maine attended college at significantly higher rates than their peers of similar background in every other ethnic group. While I cannot evaluate them, I also discuss potential explanations for the disparity in college attendance between Jews and other groups.

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Introduction

The integration of immigrants into American society is and has been a hotly contested public policy issue, from the 1882 Chinese Exclusion Act to the Johnson-Reed Act of 1924 to the ongoing debate over Deferred Action for Childhood Arrivals (Immigration and Ethnic History Society). At the core of this debate is the question of if, how, and how quickly immigrants are able to integrate into American society, both socially and economically. The relative importance of cultural orientation, familial and individual resources, changes in local economies, and education as the drivers of economic mobility among immigrant groups have been examined. However, the relationship between ethnicity and educational attainment is underexamined.

Abramitzky, Boustan, Jácome, and Pérez (2019) examine the intergenerational economic mobility of second-generation immigrants relative to native-born Americans by examining three cohorts of immigrants, including one cohort composed of immigrants during the Age of Mass Migration captured in the 1910 Census with their children. By tracking those children to the 1940 Census, they find that the children of immigrants experienced a greater degree of upward economic mobility than their native-born peers. In trying to determine the cause of that greater

mobility, Abramitzky et al. (2019) find that the children of immigrants did not pursue higher education at a higher rate than their native-born peers of similar economic background.

Jewish college attendance patterns tell a very different story. American Jews, the families of the vast majority of whom arrived in the United States between 1880 and 1920, went to college at rates that far surpassed those of other ethnic groups. The national rate of college attendance among 18- to 24-year-olds in 1930 was seven percent (Snyder 1993). However, Jewish college attendance rates in New York City in 1930, where around half of the American Jewish population lived, were estimated at thirty percent according to Freidenreich (2015). Chad and Brym (2020) note the disproportionate intellectual achievement of Jews in the twentieth century. Of all recipients of the Fields Medal since its inception in 1936, seen as the top award in mathematics, 21.6 percent have been Jewish despite Jews comprising 0.2% of the global population. That figure was even higher in the twentieth century. Jews have also accounted for 23.9 percent of Nobel Prize recipients, 27.1 percent of Turing Award recipients and 52.5 percent of Pulitzer Prize winners in general non-fiction.

The Age of Mass Migration provides an opportunity to study the educational facet of the immigrant experience for different groups of immigrants arriving at the same time. From 1880 to 1920, more than 20 million immigrants arrived in the United States, of whom two million were Jews. By 1920, this meant that 13.2 percent of the US population was foreign-born (Sassler 2006). Boustan (2007) demonstrates that Jewish migration from Russia to the United States was influenced by anti-Jewish persecution, demographic effects, and business cycles. Xu and Zhang (2020) use a machine-learning based algorithm to identify ethnicities of Russian immigrants to the United States using 1930 Census data, finding that over 60% of these Russian-born

immigrants were Jewish. However, they identified the vast majority of Russian-born immigrants living in Maine as ethnically Jewish.

Most existing literature focuses on Jews that lived in population centers, with much literature examining New York, where approximately half of all American Jews lived in 1920. However, as Perlmann (1983) notes, the experiences of Jewish immigrants varied substantially depending on where they settled. Additionally, Borjas (1986) describes unique labor market patterns among immigrant populations. Perlmann's (1983) description of first-generation Russian-Jewish immigrant occupational patterns supports Borjas' description, noting high levels of self-employment among Russian-Jewish immigrant men. High levels of self-employment among Russian-Jewish men also reflect the findings of Fairlie and Meyer (1996), who report substantial differences in self-employment across ethnic and racial groups in the United States.

The pattern of high rates of Jewish college attendance also holds in Maine. By cross-referencing Lewiston High School yearbook data with 1930 census data, Freidenreich (2015) finds that among the children of businessmen and professionals, Jewish high school graduates in Lewiston, Maine were three times more likely to pursue further education than their non-Jewish peers. Given the findings of Abramitzky et al. (2019), that result is very unexpected in terms of both the college attendance rate and the close geographical proximity for the comparison. This paper will examine the experience of Maine's Jews in particular, a group that has received very little attention in previous literature, in lieu of the overall Jewish experience or the often-examined New York Jewish experience. This paper builds on the work of Abramitzky et al. (2019) by examining whether national trends hold for the state of Maine, which data from Freidenreich (2015) suggests may not be the case. Xu and Zhang's (2020) algorithm shows that Russian-born immigrants in Maine are heavily Jewish, allowing study of Maine's immigrant

populations using Census data despite the lack of questions to identify religious affiliation. It will also fill a gap in the literature focusing on Jewish education by investigating higher education decisions by Maine Jews in conjunction with socioeconomic status. By examining college attendance decisions and parental economic status together, this paper will also contribute to the literature regarding Jewish cultural attitudes toward education.

This paper examines the question of whether second-generation American Jews attended college at higher rates than their peers of other ethnic backgrounds, and the implications of that disparity in college attendance rates. Using individual-level US Census data from 1910 and 1940, I track individual second-generation immigrants in Maine from childhood to adulthood, linking the records by name and birthplace. I then use a probit regression model to compare relative college attendance rates of Jews with those of the children of immigrants in other ethnic groups as well as with the children of native-born fathers. I primarily compare them to Italians, French-Canadians, and Natives, although I also consider English Canadians and other Europeans. I find a statistically significantly higher predicted likelihood of attending college for the children of Jewish immigrants relative to all of the comparison groups. After running my initial probit regressions, I include several interaction effects and still estimate Jews to be statistically significantly more likely to attend college than every other group except Italians. I attribute the lack of statistical significance in the comparison between Jews and Italians to the small sample size of Italians and use the regression results without interaction effects for my primary analysis. My finding that Jews attended college at higher rates than members of other ethnic groups suggests that ethnic or cultural factors contribute to college attendance decisions during this time period.

The next section of this paper will examine the literature regarding immigrants and education, including disagreement among scholars over the primary drivers of economic advancement and attainment among immigrant populations. After this, I review a history of Jewish immigration to the United States, including why this paper solely examines Russian Jews. Following this, I summarize the Jewish history of education in the United States and Jews' pursuit of higher education that led to a share of the collegiate population three times higher than Jews' share of the total population despite their recent immigration status. The data section discusses the sample and justifies selection of the primary comparison groups, showing that Italians and French Canadians more closely resemble the characteristics of Jews than the general population does. The methods section describes the process of linking census records, how I construct my sample, and contains the logarithmic regression model used to evaluate the groups' college attendance decisions. I then describe the results of the comparisons with and without interaction effects, perform robustness checks, discuss the implications of the results, and report the limitations of the study.

Immigrants and Education

Different immigrant groups arriving during the same period had dramatically different experiences. Borjas (1992) suggests that rather than only through links to their parents, children acquire human capital based in part on ethnic characteristics. In his econometric model, he includes the effects of "ethnic capital" as ethnic fixed effects that affect intergenerational income mobility, finding strong effects of skill-level among father's generation on intergenerational mobility. Borjas (1994) extends that model to examine how intergenerational mobility among second- and third-generation immigrants differs by immigrant experience. He finds that economic mobility is greater in these generations than among first-generation immigrants and

that ethnic capital plays the largest role for children whose fathers were either highly skilled or were unskilled.

However, there is sharp disagreement in the literature as to the primary driver of differential immigrant experiences. Sowell points to ethnic factors in his book *Ethnic America* (1981), a view also reflected in Kessner's (1977) comparison of Italian and Jewish immigrants in New York City. Sowell describes the economic integration of nine different immigrant ethnic groups, arguing that some groups advanced much more rapidly than others due to cultural orientation. Sassler (2006), on the other hand, argues that the level of familial and individual resources is more predictive of whether an immigrant population will achieve high levels of status mobility. She notes that there is less mobility in areas in which human capital levels are lower, where there are low educational and mobility expectations among youths.

Dinnerstein (1987) believes that education was a significant, if not the primary driver of social mobility for immigrants who arrived during this period. Other scholars argue that instead of education, the prospects for an immigrant's upward mobility depended more on the changes in local economies rather than education levels (Morawska 1990). Olneck and Lazerson (1974) consider the effects of nationality differences in parental length of residence in the United States, home language, age at school entrance, standardized test scores, and occupational and income effects on differences in school performance between the children of immigrant parents and find substantial variation between different nationality groups. They also note that few studies have examined the effects of ethnicity and parental economic status together on school performance, and find that the economic differences were insufficient to explain all of the difference in educational outcomes at the high school level.

Jewish Immigration

During the peak of immigration to America, between 1880 and 1920, the number of Jews in America dramatically increased. American Jews were 0.6 percent of the population in 1880 (Glazer 1955), of whom most were Sephardic or German Jews (Berrol 1976). Sephardic Jews trace their ancestry to the Iberian Peninsula, where there was a large population of Jews that did relatively well during the Golden Age of Spain (Solomin 2017). Sephardic Jews arriving in the United States did not necessarily come from Spain, though, as their expulsion from Spain in 1492, and Portugal shortly thereafter, created a diaspora in North Africa, the Middle East, and parts of Western Europe (Solomin 2017). Ashkenazi Jews, however, settled in western Germany in the 9th and 10th centuries before moving east to Poland and Russia by the 12th century. Ashkenazi Jewish migration has historically followed economic discrimination and violent oppression (Rosenfeld 2018), leading to movement from specific areas at specific times in response to such oppression. It is against this backdrop that Jewish immigration to the United States occurred in such magnitude from 1880 to 1920, when the Jewish population increased to 3.5 percent of the total population by 1917. The previous American Jewish community was largely the result of such migrations from Germany between 1840 and 1860, when the American Jewish population increased from 15,000 to 150,000 as a result of special taxes and restrictions placed on Jews in Germany. The wave of Eastern European Jewish immigration was underway by 1881 as the combination of an increase in violent pogroms and restrictive decrees against Jews in addition to generally poor economic conditions led Jews to flee to America (Glazer 1955).

Jews and Education

Leonard Dinnerstein attributes much of this educational ambition to cultural factors, quoting a journalist in 1909 as writing that "the chief ambition of the new Jewish family in America is to educate its sons" (Dinnerstein 1987, p. 45). He also quotes numerous other sources to support his claim that Jewish families valued education more than others, including The Industrial Commission, which said of New York's immigrant Jews that "The poorest among them will make all possible sacrifices to keep his children in school; and one of the most striking phenomena in New York City today is the way in which Jews have taken possession of the public schools, in the highest as well as lowest grades" (p.46). Backing this up, a majority of attendees of New York's free night school were Jewish by 1906, despite Jews comprising thirty percent of the city's population, and in 1912 ninety-five percent of the night school attendees in Pittsburgh were Jewish. By 1909, 85 percent of the students attending New York City's public City College were Jewish (Dinnerstein 1987).

Even before coming to the United States, there is evidence of the high value placed on education in Jewish communities in Russia. In *Ethnic Differences*, Joel Perlmann (1995) notes that the Russian census of 1897 showed that 55-70 percent of Jewish men above the age of thirty were literate, around double the rate for other Russians of 20-40 percent. Many were only literate in another language, which was the Hebrew used to study Talmud. Male scholarship also led to higher social status in Jewish communities.

Historical data shows that Jews took advantage of educational opportunities at much higher rates than most groups. Stephen Steinberg (1971) discusses how a secondary education had little value in American culture in the early 1900s, and that mostly economically advantaged groups were able to put off the income brought on by employment to attend or finish high school

despite the opportunity of free public school. A 1922 study of an eastern high school, he notes, found that Russian Jewish children were more likely than both other ethnic groups and children born of native parents to reach high school, complete high school, and pursue a college preparatory track over a commercial or technical track. Robert Shosteck's work compiling data on Jewish college students shows that a 1935 National Commission on Hillel Foundations contacted all accredited colleges and universities in the United States and Canada, excluding Christian seminaries, and found that 9.1 percent of the 1.1 million students accounted for were Jewish (Shosteck 1948). Findings from previous research thus suggest that the collective Jewish immigrant community placed a high value on education.

Data

This project evaluates the college attendance decisions of the children of immigrant Jews relative to other ethnic groups and the children of native-born American fathers. The comparison groups are the children of immigrant Italians, French Canadians, English Canadians, and Other Europeans. The data come from the Integrated Public Use Microdata Series (IPUMS). IPUMS provided the full Census records from 1910 for every individual aged 0-20 in the state of Maine and from 1940 for every individual aged 25-50 in Maine. The data from 1940 is the most recent census data available with names attached, as there is a 74-year blackout period before census data is allowed to enter the public domain.

Italians had the most similar overall immigrant experience to Jews across the United States: they also tended to arrive during the Age of Mass Migration from 1880-1930, did not speak English in their original country, were poor, faced discrimination, and settled in the same types of areas (Olneck and Lazerson 1974). They are a primary comparison group for Jewish immigrants in the research of Jacobs and Greene (1994), Perlmann (1995), White and Mullen

(2016), and Olneck and Lazerson (1974). Canadians, on the other hand, were the biggest immigrant group in Maine and are thus an important comparison group. Within Maine, many Jewish immigrants settled in the urban centers of Portland, Lewiston, Auburn and Biddeford. Italians also often lived in the cities, although many also worked outside cities in granite quarries. In contrast, however, English-speaking Canadians and French Canadians, who were the biggest immigrant groups to Maine, tended to live in the rural areas, particularly in northern Maine (Maine History Online: Peopling Maine). Their experiences were thus very different to that of Jews and Italians.

The reason for comparing these ethnic groups is that they share more similar characteristics with each other than they do with the general population. They are also immigrant groups with experiences that are closely related, especially the Italians and the Jews. With relatively similar observable characteristics in the data set, as well as the existing literature that supports the hypothesis of increased social and economic mobility among recent immigrant groups, we can assume that many of the unobservable characteristics in the sample have similar levels of variation to the observable ones and thus make for comparable groups.

Table 1 displays summary statistics for all of the individuals whose records were contained in the 1910 Census data once I restricted the observations to only my desired sample. They are displayed by ethnicity, showing a number of characteristics of each population. As the literature suggests, Italians are the most similar to Jews in terms of measurable characteristics. The fathers of the Italians have the closest average SEI scores to those of the Jews, with Jews having the highest mean score of 30.32 out of 100 and Italians the second highest with a mean score of 22.33. Duncan's SEI measure is a weighted average combining median earnings for a particular occupation with the educational attainment associated with it, measured by the

proportion of workers in that occupation who finished high school (IPUMS "Duncan Socioeconomic Index"). Additionally, these values are only included for men, which has no effect on this sample as it is comprised only of males. Italians also have the most similar rate of urban status to Jews, although the rate of urban status for Jews is still significantly higher than that of any other group. Additionally, the average Italian family sizes is closer to that of the average Jewish family size than the average Native family size, although Other Europeans have the most similar family size.

Table 1. Summary Statistics for 1910 Input

	Native	Jewish	Italian	Franco	English Canadian	Other European	Overall
Father's SEI Score	18.681	30.320	22.333	12.981	16.603	16.240	18.220
	(0.069)	(0.871)	(1.105)	(0.253)	(0.138)	(0.236)	(0.059)
Father's Citizenship Status	0.996	0.548	0.309	0.370	0.452	0.676	0.870
	(0.000)	(0.015)	(0.022)	(0.009)	(0.004)	(0.006)	(0.001)
Farm Status	0.399	0.028	0.024	0.168	0.200	0.196	0.346
	(0.002)	(0.005)	(0.007)	(0.007)	(0.003)	(0.005)	(0.001)
Urban/Rural Status	0.251	0.847	0.572	0.557	0.469	0.547	0.316
	(0.002)	(0.011)	(0.023)	(0.010)	(0.004)	(0.007)	(0.001)
Number of Siblings	2.723	3.215	2.932	4.149	3.622	3.227	2.934
	(0.008)	(0.061)	(0.089)	(0.046)	(0.018)	(0.029)	(0.007)
Age	9.190	6.820	4.950	8.401	8.534	9.401	9.032
	(0.021)	(0.161)	(0.233)	(0.112)	(0.045)	(0.082)	(0.018)
N	78711	1114	456	2732	16621	5255	104889

Table 2. Summary Statistics for Matched Sample

	Native	Jewish	Italian	Franco	English Canadian	Other European	Overall
Father's SEI Score	18.909	31.675	24.933	12.772	16.425	16.538	18.446
	(0.102)	(1.949)	(2.592)	(0.443)	(0.226)	(0.383)	(0.090)
Father's Citizenship Status	0.996	0.667	0.356	0.392	0.449	0.697	0.896
	(0.000)	(0.031)	(0.051)	(0.018)	(0.006)	(0.010)	(0.001)
Farm status	0.415	0.043	0.056	0.206	0.219	0.194	0.373
	(0.003)	(0.013)	(0.024)	(0.015)	(0.005)	(0.009)	(0.002)
Urban/Rural Status	0.238	0.816	0.578	0.519	0.443	0.540	0.287
	(0.002)	(0.025)	(0.052)	(0.018)	(0.006)	(0.011)	(0.002)
Number of Siblings	2.667	3.479	2.767	4.171	3.562	3.348	2.847
	(0.011)	(0.145)	(0.198)	(0.083)	(0.029)	(0.046)	(0.010)
Age	9.096	6.880	5.178	8.602	8.473	9.540	9.005
	(0.031)	(0.362)	(0.557)	(0.214)	(0.074)	(0.137)	(0.028)
N	36005	234	90	767	6044	1981	45121

Sample Construction and Linking Methodology

To answer my research question, I needed to create the appropriate sample. I first took the full-count 1910 Census for the State of Maine, matching individual records to household records. I then limited the sample to only male children aged 0-20 years old at the time of the 1910 Census who were White and lived with their fathers. I restricted the sample to males due to the nature of matching census records by name, which cannot match the records of any woman who changed her surname after getting married. Limiting the sample to only White individuals drops just under 800 observations of non-White individuals and doing so allows comparison between immigrant groups and their White native-born counterparts. Additionally, ethnicity was defined according to an individual's father's birthplace, in keeping with previous literature (Abramitzky et al. 2019; Perlmann 1983). As each group is by construction composed of individuals whose father is an immigrant, individuals are assigned to their ethnic group based on their father's birthplace and mother tongue where language is a discerning characteristic. The Census did not ascertain an individual's religion, making identification of Jews slightly more

difficult. A common method in the literature is to build into the model the assumption that all Russian immigrants during this time were Jewish. Perlmann, studying Providence's Jews, notes that the 1905 Rhode Island State Census did ask respondents' religion and found that 95 percent of those in Providence who were born in Russia were Jewish (1983). To identify Jews for the purposes of this paper, I follow the same methodology.

Children in the sample were then assigned to one of the following groups: Native, the children born to fathers who were born in the United States; Jewish, the children born to fathers born in Russia; Franco, the children born to fathers born in French-speaking Canada; Italian, the children born to fathers born in Italy; English Canadian, the children born to fathers born in English-speaking Canada; and Other Europeans, the children born to fathers from European countries other than Italy and Russia.

After limiting the full count of 1910 Census records to the sample that includes only white male children aged 0-20 living in Maine and their fathers, I matched them to the corresponding records in the 1940 Census. I use the national 1940 Census to account for individuals who lived in Maine in 1910 but moved elsewhere in the United States by 1940, capturing 37,339 additional men of the appropriate age range who were born in Maine but did not live there in 1940. I follow the linking algorithm developed by Abramitzky, Boustan, and Eriksson (ABE) (2012, 2014, 2019). Originally developed by Ferrie (1996), the ABE algorithm works in three main steps. First, it takes Dataset A and Dataset B (in this paper, the Maine 1910 Census and national 1940 Census, respectively), cleaning the names in them to standardize them across common misspellings and nicknames. I use the New York State Identification and Intelligence System (NYSIIS) as a robustness check on the cleaning process, which phonetically standardizes the names using another algorithm. The NYSIIS minimizes the risk of losing

records due to spelling differences that can occur with greater frequency among immigrants with foreign names. Second, the ABE algorithm takes only individuals in Dataset A that are unique across name and age (the algorithm also takes into account place of birth at the state level, which is irrelevant for this paper due to its focus on Maine). Third, the algorithm takes each of the unique records in Dataset A and searches Dataset B's records for an exact match across first name, last name, and birth year. Records in Dataset A that have one match in Dataset B are kept while records that have multiple potential matches in Dataset B are discarded. With records that have no matches, the algorithm expands the search to within one year of the exact birth year, and if that still fails it expands the search to within two years of the exact birth year. Should that still fail, that record is excluded. The final piece of this third step is that the algorithm repeats this process starting from Dataset B and searches Dataset A for matches, with the final matched data including only those records identified as unique matches both ways. A further robustness check on the matching process designed to reduce false-positives is requiring the names to be unique within two years above or below the reported year of birth. I run the ABE algorithm both with and without this last robustness check, producing a normally-matched linked dataset and a conservatively-matched linked dataset. While I conduct my primary analysis with the normally-matched linked dataset, I use the conservatively-matched dataset as a robustness check of the results.

Using the ABE linking algorithm with the 1910 Maine Census as Dataset A, containing 105,742 potential-match observations, and the national 1940 Census as Dataset B yields 45,417 matched records using the normal matching algorithm, which I used for primary analysis, and 33,675 matched records using the conservative matching data. After this matching, I drop the children of immigrants from places not represented by the aforementioned ethnic groups. As the

largest sending countries are all represented, doing so reduces the final sample only slightly, to 45,121 in the normally-matched data, a loss of 296 individuals and to 33,479 in the conservatively-matched data, a loss of 196. Overall, I have a match rate of 42.7% with the normal-matching ABE algorithm and a match rate of 31.7% with the conservative matching. The rate of successful matches is comparable to the 29% match rate Abramitzky et al. (2019) report using the conservative matching algorithm across the national dataset.

Table 2 displays summary statistics for the matched sample. The high level of similarity across the two tables indicates that the matching process did not bias the sample in a meaningful way. However, the rate of matching differed across ethnic group. Natives had the highest rate of matching with a 45.7 percent match rate. Other Europeans and English Canadians followed with match rates of 38 percent and 36 percent, respectively. French Canadians had a match rate of 28 percent, Jews of 21 percent, and Italians of 20 percent. The differing match rates may be related to the prevalence of non-English names, which are more prone to transcription and spelling errors, resulting in Jews, Italians, and French Canadians having the lowest rates of matching. However, despite the differing match rates, the characteristics of each group are robust across the matching process.

An additional challenge with this data is that the US Census did not collect earnings data prior to 1940. As such, I use Duncan's Socioeconomic Index for my primary analysis as a proxy applied to the fathers in my sample as a measure of the socioeconomic status of each individual during childhood. While some scholars use Duncan's SEI (Sassler and White 1997; White and Mullen 2016), the efficacy of using the index as a measure is disputed (IPUMS "User Note"). While the occupational data used to construct the index is taken from the 1950 census and the 1947 National Opinion Research Study, Sassler and White (1997) note scholars that show the

"reasonable" robustness of the scores over time (Hauser 1982; Hodge, Siegel and Rossi 1964; Landale and Guest 1990; Nakao and Treas 1994; Treiman and Terrell 1975). Perlmann (1995) specifically notes the importance of using a scale, particularly Duncan's, to control for father's occupation when comparing individuals across ethnicities.

Due to the contested validity of using Duncan's SEI, I also use a dimension-specific measure of socioeconomic status, occupational score, as a robustness check. Occupational score is assigned as the median income for a particular occupation in hundreds of 1950 dollars (IPUMS "Occupational Income Score"). The construction of this measure can also present an issue of accuracy, however, as immigrants were potentially underpaid relative to native-born individuals in the same jobs (Abramitzky et al. 2019).

Empirical Model

To test the hypothesis that the children of Jewish immigrants to Maine attended college at higher rates than their peers of different ethnic groups, I initially estimate the following logarithmic regression for an individual *i*:

$$I(college_i) = \beta_0 + \beta_1(ethnicity)_i + \beta_2(father's\ SEI)_i + \beta_3(city)_i + \beta_4 I(father's\ citizenship\ status)_i + \beta_5 I(farm)_i + \beta_6 I(urban)_i + \beta_7(number\ of\ siblings)_i + \beta_8(age)_i + \varepsilon_i \quad (1)$$

Where $college_i$ estimates an individual's likelihood of electing to attend college as of 1940 based on a number of explanatory factors from the individual's childhood measured in 1910; *ethnicity* is a vector that represents a set of ethnic groups, which includes the individual's ethnic background or national origins; *father's SEI* represents the individual's father's score from 0-100

on Duncan's Socioeconomic Index scale; *city* is the city in which the individual lives; *father's citizenship status* is an indicator for whether the individual's father is an American citizen; *farm* is an indicator for whether the individual lived on a farm in 1910; *urban* is an indicator whether the individual lived in an urban area in 1910; *number of siblings* represents the number of siblings an individual had as of 1940; *age* represents the individual's age as of the 1910 Census; *year of father's immigration* describes the year the individual's father immigrated to the United States; and ε_i is an individual-level error term.

However, this initial regression equation averages the effects of variables including *father's SEI*, *number of siblings*, and *age* across ethnic groups, when in reality those effects could be very different. To account for these potential differences, I then run the same regression with additional interaction terms between *ethnicity* and *father's SEI*, *ethnicity* and *number of siblings*, and *ethnicity* and *age*. This equation takes the following form:

$$I(college_i) = \beta_0 + \beta_1(ethnicity)_i + \beta_2(father's\ SEI)_i + \beta_3(city)_i + \beta_4 I(father's\ citizenship\ status)_i + \beta_5 I(farm)_i + \beta_6 I(urban)_i + \beta_7(number\ of\ siblings)_i + \beta_8(age)_i + \beta_9(ethnicity * father's\ SEI)_i + \beta_{10}(ethnicity * number\ of\ siblings)_i + \beta_{11}(ethnicity * age)_i + \varepsilon_i \quad (2)$$

After estimating equations (1) and (2), which compare all of the ethnic groups to the Native baseline, I compare Jews to each ethnic group individually. To do so, I take the group being compared to as the baseline, and then estimate the following equation:

$$I(college_i) = \beta_0 + \beta_1 I(Jewish)_i + \beta_2(father's\ SEI)_i + \beta_3(city)_i + \beta_4 I(father's\ citizenship\ status)_i + \beta_5 I(farm)_i + \beta_6 I(urban)_i + \beta_7(number\ of\ siblings)_i + \beta_8(age)_i + \beta_9(Jewish * father's\ SEI)_i + \beta_{10}(Jewish * number\ of\ siblings)_i + \beta_{11}(Jewish * age)_i + \varepsilon_i \quad (3)$$

I estimate equation (3) both with and without interaction terms for Jews compared with French Canadians, Italians, English Canadians, Other Europeans, and Natives.

Results

Table 3 shows estimation results for equation (1), first establishing the correlational relationship between college attendance in column 1 and then adding controls to show that the results from using an OLS regression as well as probit and logit models are robust across columns 2, 3, and 4. This initial model compares each of the immigrant ethnic groups to the baseline, native group. Using the probit model reported in column 3 as the results of interest, I compare each group with the children of native-born fathers. Being Jewish is associated with a 14.1 percentage point increase in predicted college attendance with these controls, an estimate which is statistically significant at the 1% level. An individual being Italian is associated with a predicted 2.9 percentage point increased likelihood of attending college relative to the child of a native-born father, although that estimate is not statistically significant and could be related to the very small sample size of Italian immigrants. The predicted effect of being a European, other than from Russia or Italy, is a 1.2 percentage point increase in likelihood of attending college. That the predicted likelihood of attending college for members of these ethnic groups is greater than that of the children of the native group is perhaps surprising. However, the results only show a statistically significant higher college attendance rate for Jews. The estimates for French

and English Canadians, though, are negative. French Canadians are predicted to attend college at a rate 5.4 percentage points lower than Natives, which is statistically significant at the 1% level, while being English Canadian is associated with a 3.1 percentage point decrease in predicted probability of attending college. This estimate is also statistically significant at the 1% level.

Table 3. Regression of College Attendance on Ethnicity

	(1)	(2)	(3)	(4)
VARIABLES	OLS	OLS	Probit	Logit
Jewish	0.200***	0.151***	0.141***	0.134***
	(0.031)	(0.030)	(0.029)	(0.028)
Italian	0.054	0.023	0.029	0.029
	(0.042)	(0.042)	(0.038)	(0.037)
French Canadian	-0.087***	-0.048***	-0.054***	-0.058***
	(0.009)	(0.010)	(0.012)	(0.012)
English Canadian	-0.052***	-0.034***	-0.031***	-0.032***
	(0.004)	(0.006)	(0.006)	(0.006)
Other European	-0.003	0.007	0.012	0.013
	(0.008)	(0.008)	(0.009)	(0.009)
Father's SEI		0.003***	0.003***	0.002***
		(0.000)	(0.000)	(0.000)
City		0.000	0.000	0.000
		(0.000)	(0.000)	(0.000)
Father a Citizen		0.008	0.013*	0.013*
		(0.006)	(0.008)	(0.008)
Farm		-0.019***	-0.016***	-0.016***
		(0.003)	(0.004)	(0.004)
Urban		0.020***	0.019***	0.019***
		(0.005)	(0.004)	(0.004)
Number of Siblings		-0.016***	-0.018***	-0.018***
		(0.001)	(0.001)	(0.001)
Age		-0.000*	-0.000	-0.000*
		(0.000)	(0.000)	(0.000)
Constant	0.146***	0.124***		
	(0.002)	(0.007)		
Observations	45,121	45,121	45,121	45,121
R-squared	0.005	0.059		

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

While the results in Table 3 show statistical significance in the predicted difference in likelihood attending college for Jews, French Canadians, and English Canadians, there could be differential effects of some of the covariates by ethnic group. A change in father's SEI, the number of siblings an individual has, or the individual's age might all affect the predicted likelihood of an individual attending college at different rates depending on their ethnic group. As such, I expand the model to include interaction effects between ethnicity and father's SEI score, ethnicity and number of siblings, and ethnicity and age. I then estimate the regression shown in equation (2) to include those interaction effects with the covariates in the previous model. Results are reported in Table 4.

Table 4. Probit Regression of College Attendance on Ethnicity with Interaction Effects

	(1)	(2)	(3)	(4)
VARIABLES	SEI-Ethnicity Interactions	Number of Siblings - Ethnicity Interactions	Age - Ethnicity Interactions	All Interactions
Jewish	0.140***	0.153***	0.174***	0.198***
	(0.045)	(0.032)	(0.047)	(0.063)
Italian	0.053	0.075	0.052	0.117
	(0.061)	(0.046)	(0.056)	(0.084)
French Canadian	-0.027	-0.050***	-0.059***	-0.024
	(0.021)	(0.013)	(0.018)	(0.028)
English Canadian	-0.018**	-0.028***	-0.020**	-0.000
	(0.008)	(0.006)	(0.009)	(0.011)
Other European	0.023*	0.016*	0.061***	0.083***
	(0.013)	(0.009)	(0.018)	(0.021)
Father's SEI Score	0.003***	0.002***	0.002***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)
Number of Siblings	-0.017***	-0.017***	-0.017***	-0.017***
	(0.001)	(0.001)	(0.001)	(0.001)
Age	-0.000	-0.000*	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Jewish * Father's SEI Score	-0.000			0.000
	(0.001)			(0.001)

Italian * Father's SEI Score	-0.001			-0.001
	(0.001)			(0.001)
Franco * Father's SEI Score	-0.002			-0.002*
	(0.001)			(0.001)
Other European * Father's SEI Score	-0.000			-0.000
	(0.000)			(0.000)
English Canadian * Father's SEI Score	-0.001**			-0.001**
	(0.000)			(0.000)
Jewish * Number of Siblings		-0.022		-0.025
		(0.020)		(0.021)
Franco * Number of Siblings		-0.024		-0.024
		(0.024)		(0.024)
Italian*Number of Siblings		-		-
Other European * Number of Siblings		-0.024**		-0.028**
		(0.012)		(0.012)
English Canadian*Number of Siblings		-0.023**		-0.024**
		(0.009)		(0.009)
Jewish * Age			-0.003	-0.004
			(0.003)	(0.003)
Franco * Age			0.001	0.001
			(0.003)	(0.002)
Italian * Age			-0.003	-0.001
			(0.006)	(0.007)
Other European * Age			-0.005***	-0.005***
			(0.001)	(0.001)
English Canadian * Age			-0.001	-0.002*
			(0.001)	(0.001)
Controls	Yes	Yes	Yes	Yes
Observations	45,121	45,102	45,121	45,102

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4 presents the marginal effects of a probit regression of each ethnicity against the children of native-born fathers, with an additional interaction term between ethnicity and father's SEI in column 1, an additional interaction term between ethnicity and number of siblings in column 2, and an additional interaction term between ethnicity and age in column 3. Results with all three additional interaction terms are reported in column 4. The largest effect of the

interaction between father's SEI score and ethnicity is a predicted 0.2 percentage point smaller increase for French Canadians in likelihood of attending college relative to Natives as a result of a 1-point increase in father's SEI. This effect is significant only at the 10% level. The estimate for English Canadians relates to an additional 0.1 percentage point decrease in likelihood of attending college per 1-point increase in father's SEI relative to an individual in the native group, and is statistically significant at the 5% level. None of the other coefficients for this interaction are statistically significant, though all are small and negative except the coefficient for Jews, which is small and positive. Additionally, all of the coefficients on the interaction terms between ethnicity and number of siblings are positive, except Italians which is omitted due to small sample size, and not statistically significant. None of the coefficients for the interaction terms between ethnicity and age are statistically significant except that of Other Europeans. For Other Europeans, being one year older relates to a 0.5 percentage point decrease in predicted likelihood of attending college relative to a Native, which is statistically significant at the 1% level. The coefficient for English Canadians estimates that being one year older relates to a 0.2 percentage point decrease in predicted likelihood of attending college relative to a Native, which is statistically significant only at the 10% level.

More interesting than the coefficients on the interaction terms, however, is the way in which the coefficients on the ethnicity terms change with the addition of the interaction terms. In this model, being Jewish is associated with a predicted 19.8 percentage point increase in likelihood of attending college, up from 14.1 percentage points in the previous model. Being Italian is associated with a predicted 11.7 percentage point increase in likelihood of attending college, which is still not statistically significant due to a large increase in the standard error. The magnitude of the coefficient showing the predicted likelihood of a French Canadian attending

college decreases with the inclusion of the interaction terms, falling to a predicted 2.4 percentage point decrease, which is not statistically significant. Likewise, the addition of the interaction terms brings the English Canadian estimate to a 0.0 percentage point predicted change, which is also not statistically significant. The coefficient for Other Europeans, on the other hand, increases dramatically to a 8.3 percentage point association in predicted probability of attending college, significant at the 1% level.

Jewish-French Canadian Comparison

While Tables 3 and 4 show the differences in college attendance rates between ethnic groups and the native group, the difference between those rates for Jews relative to other groups is the key analysis. Regression results for this difference are shown in Table 5, containing the probit regressions comparing Jews to French Canadians without interaction effects in column 1 and with all three interaction effects in column 5. Regardless of which interactions, if any, are included in the model, the estimate for Jews is statistically significantly larger than that for French Canadians at the 1% level. Including all of the interaction effects reported in column 5, being Jewish corresponds with a 15.9 percentage point increase in predicted likelihood of attending college. The coefficients on the interaction terms add up to zero, though with little statistical significance. The interaction effect of father's SEI score related a one-unit increase in father's SEI with an increase in predicted likelihood of attending college by 0.2 percentage points relative to the expectation resulting from the same change for a French Canadian, significant at the 10% level.

Table 5. Probit Regression Comparing Jewish and French Canadian College Attendance

VARIABLES	(1) No Interactions	(2) SEI-Ethnicity Interactions	(3) Number of Siblings – Ethnicity Interactions	(4) Age – Ethnicity Interactions	(5) All Interactions
Jewish	0.153***	0.118***	0.161***	0.181***	0.159***
	(0.022)	(0.030)	(0.023)	(0.033)	(0.040)
Father's SEI	0.002***	0.000	0.002***	0.002***	0.000
	(0.000)	(0.001)	(0.000)	(0.000)	(0.001)
Number of Siblings	-0.004	-0.003	-0.004	-0.003	-0.003
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Age	-0.001	-0.001	-0.001	0.000	0.000
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Jewish * Father's SEI Score		0.002*			0.002*
		(0.001)			(0.001)
Jewish * Number of Siblings			-0.019		-0.022
			(0.016)		(0.016)
Jewish * Age				-0.004	-0.005
				(0.003)	(0.003)
Controls:	Yes	Yes	Yes	Yes	Yes
Jewish Observations	234	234	234	234	234
French Canadian Observations	767	767	767	767	767
Total Observations	1,001	1,001	1,001	1,001	1,001

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Jewish-Italian Comparison

The second of the two primary comparison groups is Italians. Table 6 shows the results of probit regressions comparing Jews against the Italian baseline, with column 1 displaying the model without any interaction effects and column 5 showing the model including all three of the interaction terms. In column 1, being Jewish as opposed to Italian is correlated with a 13.5 percentage point increase in predicted probability of attending college, significant at the 5% level. When the interactions are included, the magnitude of the coefficient increases by 0.9

percentage points but the standard errors rise substantially, causing the coefficient to not be statistically significant. While none of the interaction effects are statistically significant and have little effect on the ethnicity coefficient, including them causes the standard errors to nearly double.

The coefficient for the interaction term between being Jewish and the father's SEI Score relates to a 0.1 percentage point increase in predicted probability of attending college for a Jew relative to an Italian for a 1-point increase in Father's SEI Score. The coefficient for the interaction term between being Jewish and age relates to a 0.6 percentage point increase in predicted likelihood of attending college for a Jew relative to an Italian for an individual one year older. The most interesting interaction effect in this comparison is the interaction between being Jewish and number of siblings. An additional marginal sibling relates to a 4.3 percentage point decrease in predicted likelihood of attending college for a Jew relative to an Italian. While this estimate is not statistically significant, the direction of the estimate is surprising in the context of Dinnerstein's (1987) research documenting the lengths to which Jewish families went to educate their sons. Overall, the small magnitudes on the interaction effects presents evidence that the Jewish and Italian groups share similar characteristics, making them effective groups to compare.

Table 6. Probit Regression Comparing Jewish and Italian College Attendance

VARIABLES	(1) No Interactions	(2) SEI-Ethnicity Interactions	(3) Number of Siblings - Ethnicity Interactions	(4) Age - Ethnicity Interactions	(5) All Interactions
Jewish	0.135**	0.104	0.152***	0.147*	0.144
	(0.057)	(0.090)	(0.057)	(0.084)	(0.101)
Father's SEI Score	0.004***	0.003	0.004***	0.004***	0.003
	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)
Number of Siblings	-0.014	-0.013	-0.014	-0.013	-0.013
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Age	-0.005	-0.005	-0.006	-0.003	-0.001
	(0.005)	(0.005)	(0.005)	(0.010)	(0.010)
Jewish * Father's SEI Score		0.001			0.001
		(0.002)			(0.002)
Jewish * Number of Siblings			-0.042		-0.043
			(0.030)		(0.031)
Jewish * Age				-0.002	-0.006
				(0.011)	(0.011)
Controls:	Yes	Yes	Yes	Yes	Yes
Jewish Observations	234	234	234	234	234
Italian Observations	90	90	90	90	90
Total Observations	324	324	324	324	324

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Jewish-Native Comparison

Analyzing the differences in college attendance between Jews and the children of native-born fathers yields insights into how those patterns compare within the larger community in Maine rather than only the immigrant community. Table 7 presents the results of this comparison, with the initial probit regression results shown in column 1 and the results in column 5 showing estimates including interaction terms. The coefficient corresponding to an individual being Jewish is significant at the 1% level both with and without interaction effects. Including interaction effects in the model causes the estimate on the Jewish coefficient to

increase from 11.6 percentage point higher predicted likelihood of attending college than a Native to a 16.3 percentage point higher predicted likelihood. The predicted effect of having an additional sibling for a Jewish individual is small and negative, but not statistically significant. Interaction effects for father's SEI and being Jewish as well as for age and being Jewish have tiny coefficients that are also not statistically significant.

Table 7. Probit Regression Comparing Jewish and Native College Attendance

	(1)	(2)	(3)	(4)	(5)
VARIABLES	No Interactions	SEI-Ethnicity Interactions	Number of Siblings - Ethnicity Interactions	Age - Ethnicity Interactions	All Interactions
Jewish	0.116***	0.118***	0.125***	0.144***	0.163***
	(0.021)	(0.032)	(0.022)	(0.033)	(0.044)
Father's SEI	0.003***	0.003***	0.003***	0.003***	0.003***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Number of Siblings	-0.019***	-0.019***	-0.019***	-0.019***	-0.019***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Jewish * Father's SEI Score		-0.000			-0.000
		(0.001)			(0.001)
Jewish * Number of Siblings			-0.022		-0.027
			(0.021)		(0.022)
Jewish * Age				-0.004	-0.005
				(0.004)	(0.004)
Controls:	Yes	Yes	Yes	Yes	Yes
Jewish Observations	234	234	234	234	234
Native Observations	36,005	36,005	36,005	36,005	36,005
Total Observations	36,239	36,239	36,239	36,239	36,239

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Robustness Checks

I conduct two primary robustness checks of the results. First, I conduct the analysis found in table 5, comparing each of the ethnic groups to the Native group as a baseline, using high school completion as the outcome of interest rather than college attendance. During the time period investigated, between 1910 and 1940, college education was not deemed necessary in order to pursue many careers and make a good living. As such, college education was not pursued at similar rates as it is today. Accordingly, I check the validity of the results using high school completion as an alternative measure of educational pursuit with a larger sample size. The results are presented in Table 8. Column 1 reports the results of the probit regression in equation (1), with high school completion instead of college attendance as the dependent variable. Column 5 reports the results of the probit regression in equation (3) which includes interaction effects, with the same substitution of educational outcome. Without interaction effects, a Jewish individual had a predicted probability of finishing high school 18.3 percentage points higher than a Native individual. Including all of the interaction effects, being Jewish was associated with a 30 percentage point higher probability of finishing high school relative to a Native individual. These estimates were both statistically significant at the 1% level. The interaction effect for Jews and father's SEI score is negligible and statistically insignificant, but the interaction term for Jews and age suggests a 1.1 percentage point decrease in predicted probability of finishing high school for an additional marginal year of age relative to Natives, significant at the 5% level. The interaction effect for Jews and number of siblings relates to a 2.7 percentage point increase in predicted likelihood of finishing high school for a Jewish individual with a marginal addition of a sibling, relative to the Native group. However, this estimate is statistically insignificant.

The coefficient associated with Italians in the first model is small, negative, and statistically insignificant. Including interaction effects causes that coefficient to become positive, small, and remain statistically insignificant. This result suggests there is not a statistically significant difference between the Italian and Native groups. The coefficient associated with Other Europeans is tiny in the first model, but the addition of interaction effects causes it to increase to an 8.0 percentage point increase in predicted likelihood of finishing high school relative to a Native, significant at the 1% level. French Canadians and English Canadians both had negative relationships with predicted probability of finishing high school, resulting in coefficients predicting a 15.3 percentage point lower likelihood of finishing high school for French Canadians relative to Natives and a 1.4 percentage point lower predicted probability of finishing high school for English Canadians relative to Natives. The estimate for French Canadians is significant at the 1% level, while the estimate for English Canadians is not statistically significant.

Table 8. Probit Regression of High School Completion on Ethnicity with Interaction Effects

	(1)	(2)	(3)	(4)	(5)
VARIABLES	No interactions	SEI-Ethnicity Interactions	Number of Siblings - Ethnicity Interactions	Age - Ethnicity Interactions	All Interactions
Jewish	0.183***	0.233***	0.163***	0.280***	0.300***
	(0.034)	(0.047)	(0.037)	(0.056)	(0.067)
Italian	-0.061	-0.010	-0.039	0.014	0.072
	(0.044)	(0.067)	(0.049)	(0.068)	(0.084)
French Canadian	-0.180***	-0.163***	-0.175***	-0.179***	-0.153***
	(0.015)	(0.023)	(0.015)	(0.023)	(0.030)
English Canadian	-0.062***	-0.049***	-0.059***	-0.033***	-0.014
	(0.008)	(0.010)	(0.008)	(0.013)	(0.015)
Other European	0.006	0.015	0.012	0.058***	0.080***
	(0.011)	(0.016)	(0.012)	(0.021)	(0.024)

Father's SEI	0.004***	0.004***	0.004***	0.004***	0.004***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Number of Siblings	-0.032***	-0.032***	-0.032***	-0.031***	-0.031***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age	-0.005***	-0.005***	-0.005***	-0.005***	-0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Jewish * Father's SEI Score		-0.002			-0.001
		(0.001)			(0.001)
Italian * Father's SEI Score		-0.002			-0.001
		(0.002)			(0.002)
Franco * Father's SEI Score		-0.002			-0.002
		(0.002)			(0.002)
English Canadian * Father's SEI Score		-0.001*			-0.001*
		(0.000)			(0.000)
Other European * Father's SEI Score		-0.000			-0.000
		(0.001)			(0.001)
Jewish * Number of Siblings			0.039		0.027
			(0.037)		(0.036)
Franco * Number of Siblings			-0.024		-0.024
			(0.022)		(0.021)
Italian * Number of Siblings			-0.058		-0.065
			(0.042)		(0.041)
English Canadian * Number of Siblings			-0.017*		-0.020**
			(0.009)		(0.009)
Other European * Number of Siblings			-0.031**		-0.035**
			(0.015)		(0.016)
Jewish * Age				-0.012**	-0.011**
				(0.006)	(0.006)
Italian * Age				-0.014	-0.013
				(0.009)	(0.010)
Franco * Age				0.001	0.000
				(0.003)	(0.003)
English Canadian * Age				-0.003***	-0.003***
				(0.001)	(0.001)
Other European * Age				-0.005***	-0.006***
				(0.002)	(0.002)
Controls	Yes	Yes	Yes	Yes	Yes
Observations	45,121	45,121	45,121	45,121	45,121

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

The other robustness check I perform is to conduct my regression analysis again using the conservatively-matched dataset I created alongside the normally-matched dataset. This serves to check the robustness of the results, making sure that my results are not biased by potential false-matches. Running each of the regressions with this alternate data changes coefficients and standard errors minimally, but does not affect statistical significance for my analysis. Thus, I conclude that the results are robust to the varying strictness of my matching criteria.

Extension

While the main analysis in this paper focuses on educational patterns among immigrant groups, the motivation behind it is education as a mechanism of economic mobility. To evaluate whether these second-generation immigrants experienced economic returns to their college educations, I estimate another probit model that evaluates three measures of economic outcomes using college education as the primary explanatory variable along with controls. I estimate this equation for an individual *i* in each ethnic group relative to the Native baseline:

$$\begin{aligned} economic\ outcome_i \\ &= \beta_0 + \beta_1(ethnicity)_i + \beta_2(father's\ SEI)_i + \beta_3(city)_i \\ &+ \beta_4 I(father's\ citizenship\ status)_i + \beta_5 I(farm)_i + \beta_6 I(urban)_i \\ &+ \beta_7(number\ of\ siblings)_i + \beta_8(age)_i \\ &+ \beta_9(ethnicity * attended\ college)_i\ \varepsilon_i \end{aligned} \quad (4)$$

both with and without the interaction term between ethnicity and college attendance. I do this using three measures of economic outcome for each individual. First, I use the child's SEI score as of 1940. Second, the 1940 Census is the first one to directly ask wage information, and so for this analysis I can use wage income as a more direct measure of economic outcomes. Third, I use the OCCSCORE of the individual. Age is a particularly important control in this model, as individuals may be earning more or less depending on the point of their career at which they are.

Results of this model are reported in Table 9. The coefficients on college attendance for each measure are large and statistically significant at the 1% level. The interaction effects across the three measures vary in terms of statistical significance, but suggest that each ethnic group experienced smaller gains from college attendance than their Native counterparts.

Table 9. Regression of Economic Outcomes on College Attendance

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	1940 SEI	1940 SEI with Interactions	1940 Wage Income	1940 Wage Income with Interactions	1940 OCCSCORE	1940 OCCSCORE with Interactions
Attended College	26.457***	26.656***	785.404***	814.981***	8.555***	8.561***
	(0.355)	(0.386)	(19.351)	(21.167)	(0.188)	(0.202)
Jewish	14.759***	17.874***	-89.771	31.616	5.854***	4.890***
	(1.523)	(1.861)	(94.718)	(94.880)	(0.925)	(0.955)
Italian	1.252	1.895	-190.220**	-118.502	1.166	1.865*
	(2.353)	(2.371)	(77.379)	(79.058)	(1.091)	(0.969)
French Canadian	-3.906***	-3.848***	-101.403***	-90.989***	-1.205***	-1.098***
	(0.722)	(0.721)	(29.190)	(28.093)	(0.373)	(0.375)
English Canadian	-0.571	-0.655*	-21.187	-2.974	-0.085	-0.152
	(0.386)	(0.391)	(16.897)	(16.390)	(0.203)	(0.200)
Other European	2.021***	2.643***	77.015***	106.203***	0.801***	1.027***
	(0.546)	(0.566)	(25.258)	(24.849)	(0.286)	(0.290)
College*Jewish		-9.103***		-359.218		2.776
		(3.091)		(223.154)		(2.170)
College*Italian		-3.245		-362.012		-3.517
		(7.275)		(222.951)		(3.855)
College*French Canadian		-0.658		-97.848		-1.928
		(3.860)		(190.320)		(1.805)
College*Other European		-4.302**		-194.166**		-1.591
		(1.727)		(90.989)		(0.979)
College*English Canadian		1.039		-158.361**		0.665
		(1.176)		(64.010)		(0.681)
Constant	21.259***	21.227***	807.297***	801.228***	21.953***	21.964***
	(0.485)	(0.485)	(21.041)	(20.962)	(0.253)	(0.252)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	45,121	45,121	42,522	42,522	45,121	45,121
R-squared	0.222	0.222	0.117	0.118	0.123	0.123

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Discussion

The differences in college attendance rates between Jews and other ethnic groups are large and at first glance appear surprisingly so. According to the model, Jewish college attendance rates were higher than those of their peers of similar socioeconomic background. While unobserved characteristics could account for some of the college attendance gap, unique Jewish cultural characteristics could also be at work. While it is impossible to test the veracity of these theories, there are some potential explanations that can be explored. Two possible factors involved are the impact of forced migrations on educational attainment and a Jewish cultural affinity for education.

One possible explanation for the educational disparity we see is the impact of forced migrations on educational attainment. Becker et al. (2020) find that Poles whose ancestors were forcibly removed from the region of Kresy after World War II have significantly higher levels of education today than other Poles, where such differences did not exist before their forced migration. Becker et al. attribute this difference in educational attainment to a change in preferences, caused by the forced migration, away from material possessions and toward human capital investment such as education. This explanation would also make sense for Jewish immigrants to the United States for several reasons. The communities of Ashkenazi Jews who immigrated to the United States during the Age of Mass Migration had a history marked by forced migrations. In describing the origins of Ashkenazi Jews, Rosenfeld (2018) specifically notes that the communities of Ashkenazi Jews formed in Germany and France in the 9th and 10th centuries migrated east to Poland and Russia by the 12th century as a direct result of oppression and pogroms. These Jews were often either expelled from the states in which they lived or driven out through a combination of violence and economic deprivation. Therefore, one explanation for

Jewish cultural inclinations toward education could be centuries of forced migrations that shaped Jewish preferences.

A second possible explanation for the disparity between Jewish college attendance and college attendance among other groups is a centuries-old value of education in Jewish communities. One of the chief pursuits in the closed Ashkenazi Jewish communities of Eastern Europe was the study of Talmud. Jewish men achieved higher social status the more time they spent studying and religious education was the most sought-after characteristic for Jewish parents seeking to arrange marriages for their daughters. The high literacy rate among Russian Jewish men in the Russian Census of 1897 relative to other Russian men supports this (Perlmann 1995). Additionally, there is evidence to support this cultural affinity for education in the literature that examines the Jewish immigrant experience in the United States. Leonard Dinnerstein (1987) notes the disparate rates of Jewish attendance of night school in New York and Pittsburgh and public college in New York, which saw majority-Jewish attendance. A persistent inclination of Jews toward education, adapted from religious education in Eastern Europe to secular education in the United States, could explain some of the differences in college attendance rates.

Limitations

While the Census data I used provided a rich set of information about my sample, there are a number of limitations to this paper. The most relevant limitation is that it is impossible to establish causality. I control for a number of relevant factors but cannot be certain that there are not other, unobserved characteristics influencing an individual's decision whether to attend college. Therefore, I cannot claim that there is a causal relationship between ethnicity or ethnic factors and college attendance.

Methodologically, there are also limitations. A major methodological limitation is that, due to linking by name, nearly all females in the data are lost during the linking process. As a result, analysis is restricted to men only and the findings of the study cannot necessarily be applied to Jewish women. Additionally, an important covariate for college attendance is the number of siblings an individual has. However, the measure of number of siblings I use is drawn from the 1910 Census, which does not account for siblings individuals in the sample had that were born after the census was taken. Given that individuals aged 0-20 years old were included in the sample, many of them had siblings born afterwards, particularly the younger individuals. This could bias the results slightly, particularly for ethnic groups that were younger in age on average such as Italians. A potential method of solving this issue was to link individuals to their 1920 Census records before linking them to the 1940 Census. However, this compounded the loss of observations in the matching process, resulting in a much smaller sample size. In addition to being unable to account for siblings born after the 1910 Census was taken, the data also cannot account for individuals who moved out of the country between 1910 and 1940, which would mostly be driven by return migration. Abramitzky, Boustan, and Eriksson (2019) note that return migration rates are much lower among second-generation immigrants than their parents, which limits this concern. A further limitation in the data is the lack of an ideal measure of socioeconomic status. The 1940 Census is the first to collect data on wage earnings, necessitating the use of Duncan's Socioeconomic Index as a proxy.

Conclusion

While unable to establish a causal relationship between ethnicity and educational pursuit, my results provide compelling evidence that such factors played a role in influencing Jewish pursuit of higher education. The significant increase in predicted likelihood of college attendance

for Jews relative to the Native population and other ethnic groups supports Borjas' (1992, 1994) theory of "ethnic capital" among the Jewish population of early 20th-century Maine. Analysis of higher educational attendance rates offers insight into how second-generation Russian-Jewish immigrants in Maine employed education as a mechanism to pursue economic mobility. While this result is unexpected within the context of Abramitzky et al.'s (2019) finding that second-generation immigrants did not attend college at higher rates than their native peers, previous studies of Jewish higher education find higher Jewish college attendance rates in New York City and nationwide (Freidenreich 2015; Dinnerstein 1987; Shosteck 1948). Further research may be able to refine analysis of immigrant intergenerational mobility as projects linking the 1940 Census to other datasets including the Longitudinal, Intergenerational Family Electronic Micro-Database Project (LIFE-M) (Bailey 2018), the Census Linking Project,[1] and the Census Bureau's Census Longitudinal Infrastructure Project become available for use.[2]

[1] https://censuslinkingproject.org
[2] https://www.census.gov/about/adrm/linkage/projects/clip.html

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