

“The Role of Immigrant Children in  
Their Parents’ Assimilation in the U.S.,  
1850-2010”

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Abstract

The presence of children in immigrant households can influence the assimilation of their parents, through either human capital transfers from children to parents (parents learning from their children) or the assistance children can provide in navigating economic life in the destination (parents leaning on their children). We examine the relationship between the presence of children in immigrant households and the human capital acquisition of their immigrant parents among immigrants to the U.S., 1850-2010. We first show that immigrants who arrived in the Great Migration of the late nineteenth and early twentieth centuries were less likely to arrive with children than more recent immigrants. We then show that assimilation appears slower for most recent cohorts than those that arrived during the Great Migration, though in both eras cohort quality declines over time. Finally, we show that the immigrant children of the earlier immigrants were associated with more assimilation (less “leaning” and more “learning”) than were the children of post-1930 immigrants.

## **Introduction**

The process of immigrant assimilation into the destination country's labor market fundamentally involves human capital: new arrivals may have to acquire a new language or learn new skills, and in many cases adapt to economic life in an environment vastly different from that in their home country. The view of migration as an investment in human capital has a long history (Schultz 1961; Becker 1962). More recently, the study of human capital formation by immigrants has been extended by considering the broader context in which that formation occurs. Rather than viewing each immigrant in isolation, immigrants husbands and wives are shown to make joint decisions regarding the accumulation and use of human capital (Baker and Benjamin 1997; Blau, Kahn, Moriarty, and Souza 2003) and immigrants' decisions are influenced by the characteristics of the larger immigrant community in which they are located, particularly immigrant enclaves (Borjas 1995). The assimilation of parents has now been linked to the assimilation of their children once the children are adults (Abramitzky et al. 2012; Portes and Rumbaut 2011; Perlmann and Waldinger 1997; Zhou 1997).

We examine immigrant assimilation in the U.S., 1850-2010, but allow for a novel influence on the human capital accumulation and exploitation of immigrants: the presence of children who migrate along with their parents. Kuziemko (2012) presents a model in which immigrant parents can both learn from their children as well as lean on them and finds that a change in California law in 1998 that caused a sudden increase in the English proficiency of immigrants' children led to a decrease in the English

proficiency of their adult immigrant parents. We extend this analysis and consider immigrants to the U.S. in two eras (1850-1930 and 1970-2010) and assess the relationship between immigrant children and outcomes for their parents.<sup>1</sup>

We present several related empirical results. We first document a striking difference between the immigrants of the Great Migration and more recent immigrants—the latter were far less likely to arrive with their children or to later send for their children. These immigrants were far more likely to start families after arriving in the US. Second, we show that assimilation appears slower for this more recent group of immigrants, though in both eras we find declining cohort quality. Finally, we show that arriving with children appears to retard the assimilation process more in recent years than it did during the Great Migration.

The paper proceeds in five Sections. Section 1 presents the theoretical framework. Section 2 describes the data. Section 3 presents the empirical results on assimilation patterns. Section 4 examines how these patterns vary with the presence of children. Section 5 discusses possible explanations for these results. Section 6 concludes.

## **2. Immigrant Children and Their Parents' Assimilation**

Kuziemko (2012) provides a full description of a model of adult immigrants' human capital acquisition that takes account of the presence of these immigrants' children. As in the standard human capital model, investment decisions depend on the

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<sup>1</sup> See Goldin (1994) on the political economy of the decision to close to borders to immigrants in the 1920s, effectively ending the Great Migration Era.

costs and benefits of additional units of human capital. In the present context, immigrant parents who come to the U.S. unable to speak English could invest in formal training to attain English proficiency (e.g. attending ESL classes). If they have children, however, they can learn English, perhaps at lower cost, from those children. This is the “learning” effect. Here, children’s human capital reduces the cost of parents’ acquisition of human capital.

In some contexts, however, parents may choose to rely directly on the English-language skills of their children rather than transferring some of those skills to themselves. For example, the child may act as a translator. This is the “leaning” effect. In these cases, children’s human capital acts as a substitute for the human capital of their parents. This substitution can take the form of acting as an intermediary in daily commercial transactions or helping parents seek employment.

The model does not predict whether the learning or leaning effect will dominate, but it does provide some insight into when the effect of children on adults’ human capital is likely to be positive or negative. Specifically, the learning effect will be larger (the effect of children on adults’ human capital will be positive and larger in magnitude) when adults have characteristics (e.g. basic literacy) that are complementary to acquiring human capital through tutoring by their children. When adults’ utility from consumption goods is independent of their own level of human capital (e.g. if their own consumption consists of only food or clothing, or if the surrounding community provides a wide array of goods and services that the adult immigrants can consume in their native language), the leaning effect will be larger (the effect of children on adults’ human capital will be negative and larger in magnitude).

## 2. Data

We use the 1850 to 2010 versions of the IPUMS, though rely mostly on the years 1900 to 1930 and 1970 onward as the variables related to immigration in these years are more detailed than in other years. These years also cover the high-immigration period of the “Great Migration” as well as the recent wave of immigration from Central America.

In general, we focus on household heads between the ages of 30 and 60, so in their prime working years, and typically focus on those with at least one child in their household. Because we are interested in assimilation, we exclude those who immigrated as children (before the age of 18), given the well-documented differences in language acquisition between adults and children (see the recent survey in Singleton 2001).

We generate several variables reflecting the household composition at the time of the household head’s migration. First, we determine whether the eldest child is himself an immigrant, which indicates that the household head either immigrated with his children or sent for his children to immigrate after he settled. A related variable is whether the eldest child immigrated in the same year as the household head, which we use as a proxy for whether parent and child immigrated together. We also create similar variables for the household head’s spouse, though we focus less on these measures in the later analysis.

The variables above likely categorize some individuals as not immigrating with their children when in fact they did, given that the IPUMS only records information about children *in the household*, not all children ever born to an individual. We will explore

how our results change when we limit the sample to those parents with relatively young eldest children, as such parents are more likely to have all their children still living with them (still need to do this).

In Figure 1, we graph the share of all individuals from our main analysis sample—those household heads between ages 30 and 60 who immigrate as adults and have at least one child in their household—whose eldest child is also an immigrant. Figure 1 shows that this share has changed substantially over time. Among immigrant parents during the first Great Migration, their eldest child was very unlikely to have been born abroad. In 1920, for example, well over 70 percent of such householders' eldest child in the household was born in the US. During the more recent immigration wave, nearly half of eldest children were born abroad, suggesting that householders had already begun their families in their homelands before moving to the U.S.

Figure 2 graphs the share of our immigrant household sample whose eldest child immigrated in the same year (and thus presumably with) the householder. Year of immigration is only available for certain years in the IPUMS, and thus we plot this variable for only a subset of the years shown in Figure 1. Again, the difference in family composition among immigrants in the Great Migration and recent years is striking. Well over 25 percent of our immigrant householder sample immigrated with their eldest child in recent years, whereas between 1900 and 1930 such an arrangement was the case only about ten percent of the time.

Because we have far greater detail on the date of migration between 1900-1930 and from 1970 onward, we focus on these two periods in much of the regression analysis. Table 1 shows summary statistics for our household sample separately from these two

periods. We also show, for the sake of comparison, native individuals who otherwise meet the sampling criteria (are household heads, are between the ages of 30 and 60 and have at least one child in the household). In some regressions, these individuals will serve as a comparison group.

Immigrant householders are almost identical with respect to age (45 versus 44 years old, in the early versus the later period, respectively). Not surprisingly, households are more likely to be female in the recent sample, and for this reason in some regressions we will restrict to male householders. Householders are also less likely to be married in the recent than in the earlier period. In both periods, the eldest child is roughly 15 years old. For all of these variables, the corresponding numbers for natives are nearly identical. As such, in both periods, the family composition of prime-age immigrant householders very closely mirrors that of natives.

Even though we restrict the sample to those who immigrated after age 18, there is a substantial difference in age at arrival between the two periods. In the earlier period, the average householder in our sample arrived at age 26, whereas that age had climbed to 29 in the more recent sample. Not surprisingly, given the similarities in average age, the earlier arrival among immigrants in the earlier period translates to longer time since arrival—19 years, versus just under 15 years in the more recent period.

As demonstrated in Figures 1 and 2, the eldest child is far less likely to be an immigrant or to have immigrated with the householder in the early years as in the more recent years. As noted above, householders are less likely to be married, but conditional on being married they are equally likely to be married to another immigrant (85 versus 86

percent in the early versus later period). As with children, in the more recent period the householder was also more likely to have arrived with his spouse.

We tend to focus on two outcome variables in the regression analysis. The first is the occupational score, based on the 1950 income distribution. As Table 1 shows, immigrants have a higher score than natives, though this difference is completely accounted for by residential location—immigrants tend to live in urban areas where wages are higher, and once state and urbanicity controls are added immigrants have lower scores than natives.

The second outcome variable is whether an immigrant reports speaking English. This variable was coded differently in 1900-1930 and in 1970 onward, with immigrants in the former group being asked only whether they speak and the latter group being asked whether they speak, speak well or speak very well. To make both measures binary, we code Speaks English as one if an immigrant reports speaking English, regardless of how well. Our re-coding suggests that immigrants today report better English skills. However, given how differently the question is asked in the two periods, we focus on within-time-period comparisons.

### **3. Regression Results on Assimilation**

#### **3.1 Basic regression results**



Table 2 reports regression results on assimilation, separately for the two periods. All regressions include state and Census year fixed effects as well as the controls listed in the table.

With these controls, the effect of being an immigrant on occupational score is strongly negative in both periods, with similar point-estimates. However, assimilation, as proxied by the coefficient on the *Years Since Migration* variation, varies substantially between the two periods. Immigrants in the 1900-1930 sample make substantial progress closing the gap with natives. For example, taken literally, the coefficients in col. (1) suggest that an immigrant who arrives at the age of 20 will have caught up with a native of similar demographic background by the age of 59.

In col. (2) we restrict the sample to those immigrants who arrived within the past 25 years. As the relationship between our outcomes and *Years Since Migration* is unlikely to be linear over very large ranges, it is useful to make sure the relationship is not being driven by outliers. In fact, the coefficient does not appreciably change. The coefficient increases somewhat when we further restrict this sample to men. Given that the gender composition of householders change between our two periods, it is useful to examine men in isolation. In summary, this roughly 40-year convergence with respect to occupational score holds across these three different samples.

Col. (4) examines English skills, so natives are no longer an appropriate control. The coefficient on years since migration suggests that the probability an immigrant reports speaking English increases by just under 1.5 percentage points a year.

Cols. (5) through (8) performs the parallel analysis on the 1970-2010 sample and suggest far more limited assimilation—and in some cases, regression—in the more recent

period. In col. (5), the coefficient on *Years Since Migration* is similar to that in col (1). However, excluding those who migrated more than 25 years prior substantially affects the point-estimate, and it flips sign and becomes negative and significant in col (6). We suspect that this dramatic effect is due to the exclusion of pre-1965 immigrants, who came from very different home countries than immigrants after 1965. Including only men in col. (7) makes the negative assimilation effect even more pronounced.

In the final column of Table 2 we examine English skills. While immigrant household heads from this era appear to gain English skills each year in the US, they do so at a much slower pace than do their counterparts from 1900-1930.

### **3.2 Controlling for year-of-arrival effects**

As noted by Borjas (2001) and others, *Years Since Migration* can conflate two effect—time in the US as well as differences in “cohort quality” related to year of arrival. For example, a positive coefficient on *Years Since Migration* could signify either the assimilation effects of time in the US or that earlier cohorts were of higher quality (or, of course, some mix of both).

In Table 3, we repeat the analysis in Table 2 but add fixed effects for year of arrival. Natives identify the Census year effects. Because year-of-arrival fixed effects completely subsume the immigrant indicator variable, it is no longer identified and is thus not reported. (We should just drop the “speaks” regressions in this table since they are just identical to the Table 2 regs as we cannot use natives as a control group – I will do that for the final version.)

Comparing the coefficients in the first four columns of Tables 2 and 3 suggest that much of the positive effect attributed to Years Since Migration may be coming from declining cohort quality. While the effect is still positive, it is smaller by a factor of four. These results are consistent with Abramitzky et al. (2012)—they find that once cohort quality and selective return migration are accounted for, assimilation during the Great Migration appears minimal.

We find similar evidence of declining cohort quality in the recent period. With year-of-arrival fixed effects, the coefficient on Years Since Migration is either zero (col. 5) or strongly negative.

In summary, once cohort quality is controlled for, we find very slow assimilation in the earlier period and strong regression in the later period. Note that because we cannot control for selective return migration, these results likely overstate the progress that immigrants make relative to similar natives.

#### **4. The role of children in the assimilation of their parents**

##### **4.1 Basic results**

Tables 4 and 5 explore how assimilation varies with whether the householder had started his family before immigrating. Table 4 is the analogue of Table 2 in that it does not include cohort fixed effects and since it compares groups of immigrants to each other, we no longer use natives as a comparison group. Table 5 uses natives as a control in order to identify cohort effects.

Col. (1) of Table 4 suggests that, with respect to occupational score, immigrant parents who arrived with a child experienced similar assimilation patterns to immigrant parents who began their families in the U.S. Assimilation with respect to English is potentially more affected—the main effect of arriving with a child is significantly negative but assimilation is faster. This effect could be consistent with the parent at first relying on his child to learn the language and broker for the family, but then later having the child teach the language to him. (Similarly, Baker and Benjamin 1997 argue that husbands rely on their wives to take paying jobs while the husbands invest in human capital). Similar patterns arise in cols. (3) and (4) where instead of comparing parents who immigrated with their children to other parents, we compare parents whose children are also immigrants (but perhaps came to the U.S. later) to other parents.

As in Tables 2 and 3, the patterns are quite different in the more recent period. Most notably, the interactions with *Years Since Migration* are either negative or positive but substantially smaller in magnitude than in the earlier period. In col. (5), while parents who arrive with children start out with an advantage when occupational score is the outcome, they assimilate at slower rates than other parents. In fact, adding the main effect and the interaction suggest they regress. In col. (6), while parents who arrive with children learn English slightly faster, the difference is substantially smaller than in the 1900-1930 period. The same patterns emerge in the final two columns where, as in cols. (3) and (4), we compare parents whose children are also immigrants (but perhaps came to the US later) to other parents.

Table 5 repeats the analysis for occupational score, but includes natives and cohort-arrival fixed effects. The results are very similar—the presence of immigrant

children does not have a large effect on the assimilation process in the earlier period, but has an ever more negative effect than that found in Table 4 for the more recent years.

#### **4.2 Can we separate treatment and selection effects?**

An important question is whether the presence of children has a true treatment effect on their parents' assimilation, or whether parents arriving with children are differentially selected. We make an imperfect attempt to separate these two stories by comparing immigrants from English-speaking homelands with other immigrants in Tables 6 through 10. Our model suggests that the "treatment" effect of children should work, in part, through their greater ability to learn a new language. Our implicit assumption is that differential selection with respect to the presence of children is similar for all home countries, whether English speaking or not.

Tables 6 and 7 show the results (without and with cohort controls, respectively) for non-English speaking countries. Given that the majority of immigrants come from such countries, the results are very similar to those in Tables 4 and 5. The results from Tables 8 and 9, however, are markedly different. For example, in col. (1) of Table 7, we found that the presence of children seemed to have little differential effect on the assimilation process for parents from non-English speaking countries; in col. (1) of Table 9, parents arriving with children assimilate much faster. If we take the results from Table 9 as the measuring the "selection" effect of arriving with children, then comparing the two effects would suggest a negative "treatment" effect of children on assimilation (as in Kuziemko 2012). In general, comparing the interaction terms in Tables 6 versus 8 or

Tables 7 versus 9 suggests that children negatively affect the assimilation process more in families from non-English speaking countries than those in English-speaking countries.

(Readers may have noted that we find a small, positive coefficient on Years Since Migration even for immigrants coming from English-speaking countries. As Table 10 demonstrates, this effect turns out to be driven by three home countries: Canada, Australia and New Zealand. About ten percent of immigrants from these countries do not speak English in the 1900-1930 Census data.)

In summary, we draw three conclusions. First, immigrant parents are substantially more likely to immigrate with their children today than they were during the Great Migration. Second, the correlation between years in the U.S. and outcomes such as occupational score and English skills—which is an imperfect measure of “assimilation”—was substantially more positive in the earlier period. In fact, for some samples, it appears that time in the U.S. is correlated with worse outcomes in the more recent period.

Finally, immigrant children appear more conducive to assimilation in the earlier period than in the recent period. In short, immigrants today are more likely to arrive with children and those children appear to retard the assimilation process more today than they did in 1900-1930.

It is important to emphasize that these relationships are correlations and not necessarily causal. We try to separate the selection effect of arriving with children and the treatment effect by comparing immigrants from English-speaking and non-English-speaking countries. There is some suggestive evidence of a negative treatment effect of children, but, as we note in the next section, important caveats exist.

## 5. Discussion

Why is assimilation slower in the more recent period? We presented some suggestive evidence that children may retard the assimilation process, but here we emphasize some alternative explanations and limitations to our analysis (though surely many other caveats exist).

First, Figure 2 shows not only that the share of immigrant parents who arrive with children is much lower in the earlier period (a fact we have been emphasizing) but that, in both periods, *it declines over time*. In 1900, the share of our immigrant sample arriving with children is about twenty percent, but falls to ten percent by 1930. Similarly, in 1970 the share is 35 percent, falling to about twenty percent in 2010. If immigrants who arrive with children are of higher quality (even if the “treatment effect” of children is negative), then this pattern might explain the declining cohort quality we find in both periods.

Second, the presence of children at arrival likely affects the ability of the immigrant householder to return to his native country. As noted earlier, our results cannot control for selective return migration, which Abramitzky et al. (2012) has shown to be empirically important. It seems plausible that adults who arrive on their own would be more able to return to their homelands if, say, they have trouble finding work in the US, and thus the coefficient on *Years Since Migration* is positively biased for this group because of selective return migration. If adults that arrive with their families are more or less “stuck” in the US, then comparing them to this first group, as our regressions do, might explain why we see that children seem to “retard” the assimilation process. If differential selective migration due to children was larger in the more recent period—as

one might expect it would be, given that it is easier to return to Mexico today than, say, Poland in 1910—then it could also explain the much more negative effect of children in the recent period.

## **6. Conclusion**

In this paper, we present evidence of the vastly different family composition at arrival between immigrant householders of the Great Migration and those today, a difference rarely noted by past research. We also document that assimilation among immigrant parents appears slower today than in 1900-1930, and that the presence of children at arrival appears to retard this process more today than it did then.

We see these initial results as suggesting several areas for future work. First, because educational data in the early years of the Census is limited, it is difficult to investigate whether immigrants that arrive with children are positively or negatively selected relative to immigrants arriving without children during the Great Migration. Using data from the home countries, as in Abramitzky et al. 2012, might help to document selection patterns with respect to family composition during this earlier period.

Second, future work might examine how family composition effects change as a function of the gender composition of children. Goldin (1979) investigates the determinants of child labor in 1800s Philadelphia. She finds that immigrant and non-immigrant parents in the 1800s were very similar with respect to sending their sons to work, but immigrant households were much more likely than their native counterparts to send their daughters to work as well (though these daughters were still less likely to work

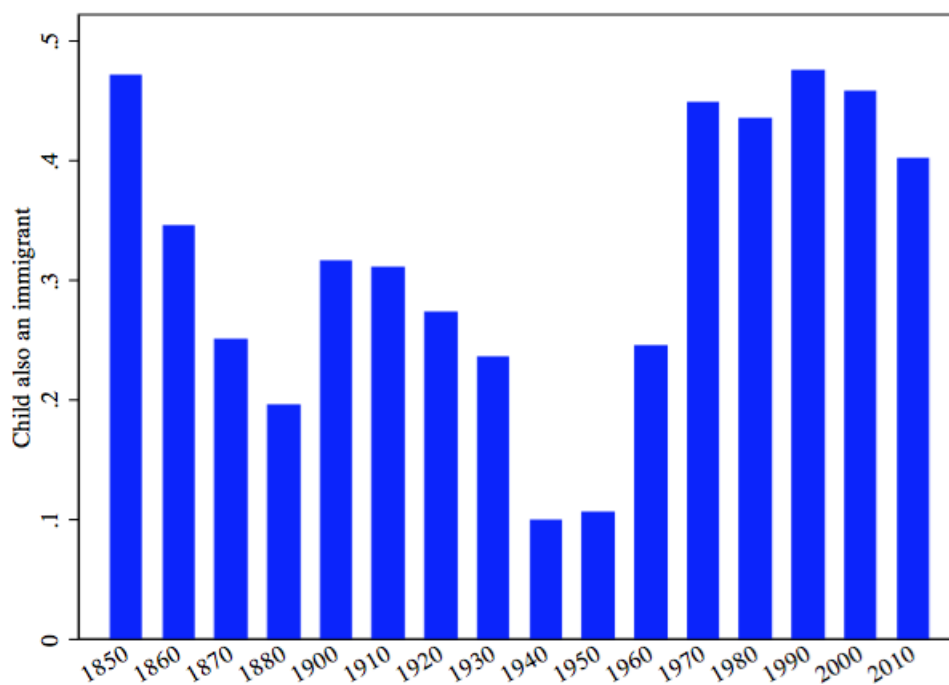


than their brothers). As such, the propensity of parents to “learn” or “lean” might depend in interesting ways on the gender composition of their children, and these differences may have changed over time with changing gender roles and expectations of daughters (see Goldin 2006).

## References

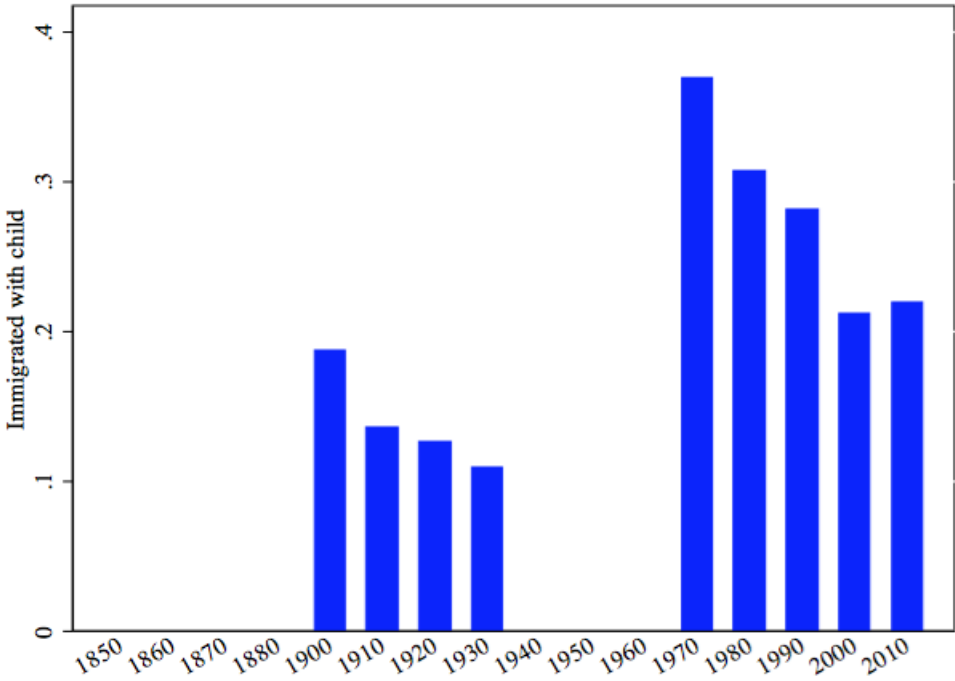
- ABRAMITZKY, R., BOUSTAN, L. P. and ERIKSSON, K. (2012). Europe’s tired, poor, huddled masses: Self-selection and economic outcomes in the age of mass migration. *American Economic Review*, **102** (5), 1832–56.
- BAKER, M. and BENJAMIN, D. (1997). The role of the family in immigrants’ labor-market activity: An evaluation of alternative explanations. *American Economic Review*, **87** (4), 705–27.
- BLAU, F. D., KAHN, L. M., MORIARTY, J. Y. and SOUZA, A. P. (2003). The role of the family in immigrants’ labor-market activity: An evaluation of alternative explanations: Comment. *American Economic Review*, **93** (1), 429–447.
- BORJAS, G. (1992). Ethnic capital and intergenerational mobility. *The Quarterly Journal of Economics*, **107** (1), 123–150.
- (1999). The economic analysis of immigration. *Handbook of labor economics*, **3**, 1697–1760.
- GOLDIN, C. (1979). Household and market production of families in a late nineteenth century american city. *Explorations in Economic History*, **16** (2), 111 – 131.
- (1994). The political economy of immigration restriction in the united states, 1890 to 1921. In *The regulated economy: A historical approach to political economy*, University of Chicago Press, pp. 223–258.
- (2006). *The quiet revolution that transformed women’s employment, education, and family*. Tech. rep., National Bureau of Economic Research.
- KUZIEMKO, I. (forthcoming). Human capital spillovers in families: Do immigrants learn from or “lean on” their children? *Journal of Labor Economics*.
- PERLMANN, J. and WALDINGER, R. (1997). Second generation decline? children of immigrants, past and present—a reconsideration. *International Migration Review*, pp. 893–922.
- PORTES, A. and RUMBAUT, R. G. (2001). *Legacies: The Story of the Immigrant Second Generation*. Berkeley: University of California Press.
- SCHULTZ, T. (1961). Investment in human capital. *The American Economic Review*, **51** (1), 1–17.
- SINGLETON, D. (2001). Age and second language acquisition. *Annual Review of Applied Linguistics*, **21**, 77–89.
- ZHOU, M. (1997). Segmented assimilation: Issues, controversies, and recent research on the new second generation. *International migration review*, pp. 975–1008.

Figure 1: Share of prime-age immigrant household heads with at least one child whose eldest child is also an immigrant



Notes: The sample includes all household heads born abroad who immigrated after age 17 and who are at the time of the census between ages 30 and 60.

Figure 2: Share of prime-age immigrant household heads with at least one child who immigrated with eldest child



Notes: The sample includes all household heads born abroad who immigrated after age 17 and who are at the time of the census between ages 30 and 60.

Table 1: Summary statistics from 1900-1930 versus 1970-2010 (immigrant household heads with at least one child in the household)

	1900-1930		1970-2010	
	(1) Immigrants	(2) Natives	(3) Immigrants	(4) Natives
Age	44.93 (8.218)	43.41 (8.363)	43.68 (7.970)	42.58 (7.946)
Male	0.910 (0.287)	0.901 (0.299)	0.714 (0.452)	0.725 (0.447)
Married	0.875 (0.331)	0.868 (0.338)	0.766 (0.424)	0.761 (0.427)
Age of eldest child in household	15.49 (7.700)	14.82 (7.532)	14.88 (7.792)	14.66 (7.266)
Years since migration	18.94 (8.956)		14.77 (8.793)	
Age at arrival	25.99 (7.026)		28.91 (8.027)	
Eldest child of HH head is an immigrant	0.280 (0.458)		0.437 (0.514)	
Eldest child immigrated same year as HH	0.136 (0.346)		0.248 (0.439)	
Spouse is also an immigrant (conditional on being married)	0.851 (0.356)		0.866 (0.341)	
Spouse immigrated same year (conditional on being married)	0.332 (0.471)		0.412 (0.492)	
Speaks English	0.875 (0.331)		0.925 (0.263)	
Occupational earnings score, 1950 basis	128.4 (263.4)	109.7 (243.6)	121.1 (257.4)	112.3 (227.7)
Share of all prime-age immigrants	0.252		0.246	
Observations	78000	478162	148988	1573033

The sample includes all immigrants between ages 30 and 60 who arrived as adults (at least age 18) and who are household heads. The final row shows the share of all prime-age immigrants for which this group accounts. As in the regression tables, IPUMS person-weights are always used.

Table 2: Measures of assimilation

	1900-1930				1970-2010			
	Occ. score			Speaks Eng.	Occ. score			Speaks Eng.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Immigrant	-9.165*** [0.209]	-8.990*** [0.321]	-9.592*** [0.328]		-12.67*** [0.117]	-9.918*** [0.154]	-9.538*** [0.173]	
Years since migration	0.229*** [0.00784]	0.198*** [0.0191]	0.210*** [0.0195]	0.0149*** [0.000283]	0.210*** [0.00516]	-0.0387*** [0.0104]	-0.0646*** [0.0118]	0.00469*** [0.000131]
Age	0.517*** [0.0539]	0.456*** [0.0578]	0.489*** [0.0597]	-0.00223 [0.00223]	1.804*** [0.0291]	1.843*** [0.0297]	1.793*** [0.0340]	0.00733*** [0.00114]
Age squared	-0.00789*** [0.000609]	-0.00709*** [0.000656]	-0.00752*** [0.000678]	-0.0000451* [0.0000254]	-0.0211*** [0.000332]	-0.0214*** [0.000339]	-0.0209*** [0.000388]	-0.000117*** [0.0000130]
Male	23.77*** [0.187]	23.59*** [0.197]		0.0559*** [0.00847]	17.16*** [0.0512]	17.44*** [0.0522]		0.0374*** [0.00180]
Urban	23.30*** [0.0963]	23.56*** [0.102]	24.72*** [0.106]	0.00847** [0.00341]	-2.550*** [0.0704]	-2.403*** [0.0724]	-2.352*** [0.0885]	-0.0151*** [0.00196]
Mean, dept. var.	44.05	43.34	44.63	0.857	54.72	54.89	59.24	0.930
Includes natives?	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Yrs. since migration	All	Under 25	Under 25	Under 25	All	Under 25	Under 25	Under 25
Gender	Both	Both	Men	Both	Both	Both	Men	Both
Observations	445107	400116	379407	52626	1475855	1421042	1072116	107781

All observations are household heads between the ages of 30 and 60 with at least one child in the household. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). “Years since migration” is coded as zero for non-immigrants. All regressions include fixed effects for Census year and state of residence. “Urban” is an indicator for living in a city large enough to be recorded in the Census.

Table 3: Measures of assimilation (with year-of-arrival fixed effect)

	1900-1930				1970-2010			
	Occ. score		Speaks Eng.		Occ. score		Speaks Eng.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Years since migration	0.0551*** [0.0115]	0.0513** [0.0225]	0.0549** [0.0230]	0.0149*** [0.000283]	0.00161 [0.00815]	-0.195*** [0.0136]	-0.190*** [0.0155]	0.00469*** [0.000131]
Age	0.529*** [0.0540]	0.464*** [0.0578]	0.498*** [0.0597]	-0.00223 [0.00223]	1.811*** [0.0291]	1.830*** [0.0297]	1.777*** [0.0340]	0.00733*** [0.00114]
Age squared	-0.00804*** [0.000610]	-0.00719*** [0.000656]	-0.00764*** [0.000678]	-0.0000451* [0.0000254]	-0.0212*** [0.000332]	-0.0213*** [0.000339]	-0.0208*** [0.000388]	-0.000117*** [0.0000130]
Male	23.76*** [0.187]	23.57*** [0.196]		0.0559*** [0.00847]	17.21*** [0.0512]	17.48*** [0.0522]		0.0374*** [0.00180]
Urban	23.26*** [0.0963]	23.53*** [0.102]	24.69*** [0.106]	0.00847** [0.00341]	-2.484*** [0.0704]	-2.378*** [0.0725]	-2.292*** [0.0887]	-0.0151*** [0.00196]
Mean, dept. var.	44.05	43.34	44.63	0.857	54.72	54.89	59.24	0.930
Includes natives?	Yes	Yes	Yes	No	Yes	Yes	Yes	No
Yrs. since migration	All	Under 25	Under 25	Under 25	All	Under 25	Under 25	Under 25
Gender	Both	Both	Men	Both	Both	Both	Men	Both
Observations	445107	400116	379407	52626	1475855	1421042	1072116	107781

All observations are household heads between the ages of 30 and 60 with at least one child in the household. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). “Years since migration” is coded as zero for non-immigrants. All regressions include fixed effects for Census year and state of residence. “Urban” is an indicator for living in a city large enough to be recorded in the Census.

Table 4: Relationship between assimilation and family composition

	1900 - 1930				1970 - 2010			
	(1) Score	(2) Speaks	(3) Score	(4) Speaks	(5) Score	(6) Speaks	(7) Score	(8) Speaks
Eldest child immigrated same year as HH	-0.500 [0.627]	-0.0802*** [0.00880]			1.104*** [0.350]	-0.0138*** [0.00343]		
Eldest child of HH head is an immigrant			-0.599 [0.578]	-0.141*** [0.00808]			-2.895*** [0.360]	-0.0581*** [0.00351]
Eldest child in household arrived same year x Years since migration	0.0532 [0.0469]	0.00511*** [0.000658]			-0.119*** [0.0294]	0.00162*** [0.000286]		
Eldest also an immigrant x Years since migration			0.0200 [0.0379]	0.00625*** [0.000530]			-0.199*** [0.0256]	0.00173*** [0.000248]
Years since migration	0.211*** [0.0239]	0.0133*** [0.000336]	0.195*** [0.0289]	0.00966*** [0.000404]	0.0504*** [0.0176]	0.00430*** [0.000168]	-0.0701*** [0.0206]	0.00240*** [0.000199]
Mean, dept. var.	49.77	0.857	49.77	0.857	46.49	0.930	46.49	0.930
Obs.	52769	52626	52769	52626	116391	107781	116391	107781

All observations are household heads between the ages of 30 and 60 with at least one child in the household and all observations are immigrants. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). Controls are those included in Table 3.



Table 5: Relationship between assimilation and family composition (adding natives and year-of-arrival fixed effects)

	1900 - 1930				1970 - 2010			
	(1) Score	(2) Speaks	(3) Score	(4) Speaks	(5) Score	(6) Speaks	(7) Score	(8) Speaks
Eldest child immigrated same year as HH	-0.703 [0.715]	-0.0791*** [0.00882]			1.554*** [0.319]	-0.0131*** [0.00358]		
Eldest child of HH head is an immigrant			-0.819 [0.630]	-0.127*** [0.00815]			-1.515*** [0.311]	-0.0580*** [0.00359]
Eldest child in household arrived same year x Years since migration	0.0254 [0.0541]	0.00480*** [0.000662]			-0.151*** [0.0271]	0.00156*** [0.000301]		
Eldest also an immigrant x Years since migration			-0.0172 [0.0421]	0.00548*** [0.000536]			-0.268*** [0.0222]	0.00173*** [0.000255]
Years since migration	0.0394 [0.0250]	0.0127*** [0.00151]	0.0250 [0.0286]	0.0101*** [0.00152]	-0.155*** [0.0160]	0.00479*** [0.000364]	-0.201*** [0.0178]	0.00285*** [0.000377]
Mean, dept. var.	43.34	0.857	43.34	0.857	54.89	0.930	54.89	0.930
Obs.	400116	52626	400116	52626	1421042	107781	1421042	107781

All observations are household heads between the ages of 30 and 60 with at least one child in the household and all observations are immigrants. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). Controls are those included in Table 3.

Table 6: Relationship between assimilation and family composition, non-English-speaking home countries

	1900 - 1930				1970 - 2010			
	(1) Score	(2) Speaks	(3) Score	(4) Speaks	(5) Score	(6) Speaks	(7) Score	(8) Speaks
Eldest child immigrated same year as HH	-1.323* [0.713]	-0.119*** [0.0110]			0.839** [0.366]	-0.0138*** [0.00370]		
Eldest child of HH head is an immigrant			-1.212* [0.640]	-0.171*** [0.00982]			-2.796*** [0.376]	-0.0607*** [0.00379]
Eldest child in household arrived same year x Years since migration	0.0691 [0.0534]	0.00740*** [0.000821]			-0.121*** [0.0308]	0.00175*** [0.000310]		
Eldest also an immigrant x Years since migration			0.0460 [0.0419]	0.00824*** [0.000642]			-0.211*** [0.0267]	0.00181*** [0.000267]
Years since migration	0.245*** [0.0266]	0.0163*** [0.000409]	0.225*** [0.0321]	0.0124*** [0.000493]	0.0607*** [0.0183]	0.00467*** [0.000181]	-0.0447** [0.0216]	0.00266*** [0.000215]
Mean, dept. var.	48.50	0.826	48.50	0.826	45.64	0.924	45.64	0.924
Obs.	42033	41920	42033	41920	106700	99608	106700	99608

All observations are household heads between the ages of 30 and 60 with at least one child in the household and all observations are immigrants. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). Controls are those included in Table 3.

Table 7: Relationship between assimilation and family composition, non-English-speaking home countries (with year-of-arrival effects and natives)

	1900 - 1930				1970 - 2010			
	(1) Score	(2) Speaks	(3) Score	(4) Speaks	(5) Score	(6) Speaks	(7) Score	(8) Speaks
Eldest child immigrated same year as HH	-0.960 [0.833]	-0.110*** [0.0110]			1.304*** [0.333]	-0.0128*** [0.00386]		
Eldest child of HH head is an immigrant			-1.128 [0.710]	-0.145*** [0.00990]			-1.376*** [0.324]	-0.0604*** [0.00387]
Eldest child in household arrived same year x Years since migration	-0.0108 [0.0631]	0.00649*** [0.000824]			-0.157*** [0.0283]	0.00166*** [0.000325]		
Eldest also an immigrant x Years since migration			-0.0343 [0.0472]	0.00663*** [0.000649]			-0.286*** [0.0231]	0.00179*** [0.000275]
Years since migration	0.0728*** [0.0274]	0.0181*** [0.00225]	0.0543* [0.0316]	0.0156*** [0.00226]	-0.135*** [0.0166]	0.00528*** [0.000393]	-0.167*** [0.0185]	0.00324*** [0.000407]
Mean, dept. var.	43.02	0.826	43.02	0.826	54.88	0.924	54.88	0.924
Obs.	389380	41920	389380	41920	1411351	99608	1411351	99608

All observations are household heads between the ages of 30 and 60 with at least one child in the household and all observations are immigrants. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). Controls are those included in Table 3.

Table 8: Relationship between assimilation and family composition, English-speaking home countries

	1900 - 1930				1970 - 2010			
	(1) Score	(2) Speaks	(3) Score	(4) Speaks	(5) Score	(6) Speaks	(7) Score	(8) Speaks
Eldest child immigrated same year as HH	-0.400 [1.293]	-0.0726*** [0.00732]			3.895*** [1.084]	0.00115 [0.00155]		
Eldest child of HH head is an immigrant			0.361 [1.274]	-0.0458*** [0.00724]			-0.0237 [1.124]	0.000934 [0.00158]
Eldest child in household arrived same year x Years since migration	0.119 [0.0962]	0.00483*** [0.000545]			-0.114 [0.0893]	-0.0000158 [0.000126]		
Eldest also an immigrant x Years since migration			0.0885 [0.0843]	0.00299*** [0.000479]			-0.0995 [0.0816]	-0.0000841 [0.000113]
Years since migration	0.172*** [0.0534]	0.00130*** [0.000302]	0.195*** [0.0634]	0.00141*** [0.000360]	0.0720 [0.0559]	0.000111 [0.0000762]	-0.0580 [0.0638]	0.000113 [0.0000879]
Mean, dept. var.	54.75	0.979	54.75	0.979	56.05	0.999	56.05	0.999
Obs.	10736	10706	10736	10706	9691	8173	9691	8173

All observations are household heads between the ages of 30 and 60 with at least one child in the household and all observations are immigrants. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). Controls are those included in Table 3.

Table 9: Relationship between assimilation and family composition, English-speaking home countries (with year-of-arrival effects and natives)

	1900 - 1930				1970 - 2010			
	(1) Score	(2) Speaks	(3) Score	(4) Speaks	(5) Score	(6) Speaks	(7) Score	(8) Speaks
Eldest child immigrated same year as HH	-2.136 [1.408]	-0.0734*** [0.00744]			4.667*** [1.040]	0.000490 [0.00162]		
Eldest child of HH head is an immigrant			-0.104 [1.316]	-0.0476*** [0.00741]			1.248 [0.982]	0.000345 [0.00163]
Eldest child in household arrived same year x Years since migration	0.260** [0.105]	0.00479*** [0.000556]			0.00962 [0.0849]	0.0000432 [0.000134]		
Eldest also an immigrant x Years since migration			0.0964 [0.0857]	0.00303*** [0.000493]			-0.303*** [0.0618]	-0.0000391 [0.000118]
Years since migration	-0.155*** [0.0495]	0.000905 [0.000938]	-0.126** [0.0549]	0.00111 [0.000956]	-0.580*** [0.0434]	0.0000716 [0.000167]	-0.697*** [0.0481]	0.0000671 [0.000174]
Mean, dept. var.	42.73	0.979	42.73	0.979	55.72	0.999	55.72	0.999
Obs.	358083	10706	358083	10706	1314342	8173	1314342	8173

All observations are household heads between the ages of 30 and 60 with at least one child in the household and all observations are immigrants. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). Controls are those included in Table 3.

Table 10: Relationship between assimilation and family composition, English-speaking home countries (ex. Canada, Australia and NZ)

	1900 - 1930				1970 - 2010			
	(1) Score	(2) Speaks	(3) Score	(4) Speaks	(5) Score	(6) Speaks	(7) Score	(8) Speaks
Eldest child immigrated same year as HH	0.808 [1.733]	0.00265 [0.00424]			3.478*** [1.336]	0.00153 [0.00220]		
Eldest child of HH head is an immigrant			2.098 [1.628]	0.00644 [0.00399]			-0.706 [1.385]	0.00153 [0.00224]
Eldest child in household arrived same year x Years since migration	0.0853 [0.125]	0.00000821 [0.000305]			-0.117 [0.110]	-0.0000243 [0.000178]		
Eldest also an immigrant x Years since migration			0.0322 [0.106]	-0.000129 [0.000260]			-0.0982 [0.0987]	-0.000122 [0.000157]
Years since migration	0.136** [0.0647]	0.000101 [0.000158]	0.196** [0.0782]	0.000280 [0.000192]	0.227*** [0.0673]	0.000150 [0.000105]	0.0937 [0.0788]	0.000167 [0.000124]
Mean, dept. var.	55.70	0.997	55.70	0.997	52.14	0.999	52.14	0.999
Obs.	7211	7188	7211	7188	6778	5917	6778	5917

All observations are household heads between the ages of 30 and 60 with at least one child in the household and all observations are immigrants. “Occ. score” is the occupational earnings score using the 1950 income distribution. “Speaks Eng.” is an indicator variable for speaking English at any level (in earlier years, there is only a yes/no answer allowed for this questions, whereas in later years respondents are asked how well they speak). Controls are those included in Table 3.