

LESLLA Symposium Proceedings



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About the Organization

LESLLA aims to support adults who are learning to read and write for the first time in their lives in a new language. We promote, on a worldwide, multidisciplinary basis, the sharing of research findings, effective pedagogical practices, and information on policy.

LESLLA Symposium Proceedings

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LESLLA Learners in the United States: A Portrait in Census Data, 1900-2015

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ABSTRACT

LESLLA adults bring little literacy or formal education to their host country second language acquisition and assimilation contexts. Their invisibility and marginality is perpetuated by a persistent lack of solid data and research. This paper aims to help researchers, advocates and practitioners paint and utilize a more comprehensive evidence-based portrait of adult LESLLA adults and their needs using freely available census data. The estimated number of LESLLA adults in the United States in 1900 is slightly over a half million and has increased to over two million by 2015. Although most LESLLA immigrants appear to have at least partially integrated/assimilated into the United States within 5 to 10 years after arrival, a substantial number have not. The paper suggests ways in which future research, advocacy and policymaking can use the census data to better understand and support the growing LESLLA population in the United States.

INTRODUCTION

LESLLA adults migrating to new countries typically bring little literacy or formal education into their host country second language acquisition and assimilation contexts. They are often marginalized as learners and participants by the policies and design of host-country language education and immigrant integration programs and services. Advocates and practitioners serving LESLLA adults frequently find themselves challenged to present compelling data-based information about the extent and needs of the LESLLA population in their countries and local areas. The lack of solid data perpetuates the invisibility and marginality of the LESLLA adults and their families. This paper aims to help researchers, advocates and practitioners paint a more comprehensive evidence-based portrait of adult LESLLA learners and their needs using freely available census data. Although this paper focuses on LESLLA population in the United States, similar techniques can be used in other countries as well.

There has been considerable research on the history of immigrants, their communities, language and ethnic identities in the United States (e.g., Bayor, 2016). These studies describe that, in the 17th and 18th centuries, about 1 million immigrants from Europe came to the United States, roughly half of whom were English speakers. Half of this migration stream wound up as indentured workers. By the middle of the 19th century, most immigrants arriving in the United States originated in northern Europe. By the early 20th century, most immigrants entering the U.S. came from southern and eastern Europe, with a peak of about 1.3 million immigrants arriving in 1907.

Changes in federal immigration laws influenced these changing (im)migration patterns. Some of the key Acts were the Chinese Exclusion Act of 1882 which was not repealed until 1943. The Emergency Quota Act of 1921 established restrictive formulas based on national origin that persisted until 1965. The Immigration and Nationality Act of 1965 opened up immigration from Latin America and Asia, replacing ethnic quotas with per-country quotas (LeMay & Barkan, 1999).

Across these changing policies on the immigration priorities of language, education, literacy (and skills more generally), LESLLA immigrants have systematically been disadvantaged in processes of immigration, naturalization and assimilation. Improvement of education, training and immigrant integration policies and services has been complicated by a persistent lack of information about the number of these adult learners in need of special assistance and supports of various kinds (LeMay & Barkan, 1999).

Although data from national and international surveys such as the Survey of Adult Skills (PIAAC) conducted by the Organisation for Economic Cooperation and Development can identify and describe subpopulations of LESLLA adults (Reder, 2014), they typically have sample sizes too small and are not systematically repeated over sufficiently long periods of time to enable rich historical portraits to be created. In this paper, we begin to paint a portrait of LESLLA adults over time within the growing U.S. population, using U.S. Census microdata to identify LESLLA adults. This paper is intended less as a detailed research report and more as a demonstration of the using of census data to make the LESLLA population in the United States more visible. It is hoped that the paper will serve as an initial resource and gateway to future research, advocacy and policy development that will improve the resettlement and integration of LESLLA adults in the U.S.

METHODS

This paper traces the historical development of the LESLLA population in the United States over the past couple centuries with public use data sets collected by the United States Census Bureau (www.census.gov). Both the Decennial Census data and the American Community Survey (ACS) data collected by the Bureau are utilized. The decennial Census is an enumeration and survey of the entire population, conducted every 10 years. The ACS is a smaller scale survey of target communities that is conducted much more frequently,

rotating which communities are surveyed in any given year, with the particular communities surveyed varying from year to year. The two utilize highly similar questions and procedures so that their results are comparable.

These data are collected within two frames: individuals and households. This paper focuses on the individual data. The Census Bureau and others typically report summaries of these individual-level data for different geographical aggregates such as towns, cities, counties, states and the country as a whole. These aggregate reports rarely contrast the combinations of immigration, age, education, literacy and English proficiency needed to identify populations of LESLLA learners. To accomplish this, the public access individual records -- usually termed U.S. Census Microdata samples (PUMS) -- were directly analyzed.

Public Use Microdata Samples

PUMS data and documentation from numerous decennial census and ACS surveys are accessible on numerous websites maintained by the Bureau and other federal agencies and national organizations. For many research projects, whether focused on the United States or internationally, use of the IPUMS website (www.ipums.org) of data, documentation and related services maintained by the University of Minnesota (Ruggles, Genadek, Goeken, Grover, & Sobek, 2017) is highly recommended:

IPUMS provides census and survey data from around the world integrated across time and space. IPUMS integration and documentation makes it easy to study change, conduct comparative research, merge information across data types, and analyze individuals within family and community context. Data and services are available free of charge. ...

Our signature activity is harmonizing variable codes and documentation to be fully consistent across datasets. This work rests on an extensive technical infrastructure developed over more than two decades, including the first structured metadata system for integrating disparate datasets. By using a data warehousing approach, we extract, transform, and load data from diverse sources into a single view schema so data from different sources become compatible. The large-scale data integration from IPUMS makes thousands of population datasets interoperable. (What is IPUMS?, n.d.)

For the current project, relevant curated and harmonized data and documentation pertaining to U.S. census microdata was downloaded from one of the IPUMS websites, IPUMS USA:

IPUMS USA collects, preserves and harmonizes U.S. census microdata and provides easy access to this data with enhanced documentation. Data includes decennial censuses from 1790 to 2010 and American Community Surveys (ACS) from 2000 to the present. (IPUMS USA, n.d.)

A custom microdata set was downloaded from IPUMS USA and imported into Stata Version 15.1 for this study. This data set included U.S.-resident

individuals born outside of the United States or its territories, age 16 or older at the given point in time, were included in each year of decennial census data (1850-2010) and five-year ACS data (2005, 2015). Although decennial census data are available since 1790 when the first U.S. Census was conducted, characteristics of individual members of households were not systematically delineated until the census of 1850 (Gauthier, 2002). Thus the analysis here begins with 1850. The appropriate sampling weights for each year of census and ACS survey data were applied to generate the population estimates presented in this paper.

Identifying LESLLA Immigrants in United States Census Data

The operational definition of LESLLA adults in this paper is adults age 16 or older not born in the United States who do not speak English well and are not literate in any language or have a 4th grade or lower education. Table 1 displays the availability of the key variables involved in identifying and analyzing this LESLLA population in each year of data examined. Availability here means that IPUMS has curated and documented harmonized variables that are consistent across the time periods and data sets involved. The specificity of information such as country of birth and year of immigration to the U.S. may vary across years in the original data collected, but is comparable in terms of the harmonized variables in Table 1. The second and third columns in the left of the table indicate which of the two types of census data (decennial census or American Community Survey) is used for each year. Notice there is a gap in the decennial census data for 1890; according to the IPUMS documentation, a fire in 1921 destroyed most of the 1890 census data.

The next column moving to the right in Table 1 shows the availability of harmonized data by year about recency of immigration (harmonized data refers here refers to data coming from different studies that has been made directly comparable, e.g., recency of immigration is recoded into binary variables: less than 5 years, 5 years or longer). Although recency of immigration is not itself required to identify LESLLA adults (given that they meet the English speaking ability and literacy/education criteria), we will see below that recency of immigration is helpful in interpreting the trends over time within the identified LESLLA population and for considering the extent to which language and other immigrant resettlement services are effectively reaching LESLLA adults. Recency of immigration data are not available prior to the 20th century nor during the years 1940-1960.

Moving rightward across Table 1, we next see the availability by year of variables indicating the individual's overall proficiency speaking English. There are two harmonized variables indicating English speaking ability. A binary variable equivalent to "Does the individual speak English?" is available for the years 1900-1930 and a four-level ordinal response equivalent that we recoded to best match the binary variable, available for the years 1980-2015. Details will be presented along with the findings below. No information about English speaking ability is available prior to the 20th century or for the years 1940-1970.

Continuing the rightward movement across the table, next comes the availability by year of a binary variable indicating whether the individual is literate in any language. The harmonized variable is based on answers to questions asked in slightly different ways across the years, sometimes including just reading, sometimes just writing, sometimes both, as shown in the table. These different

Table 1

United States Decennial Census and American Community Survey (ACS) data available for identifying adult immigrants with combinations of low English speaking ability, education and literacy, 1850-2015.

| Year | Census | ACS | Recency of Imm. | 2-Level English Ability | 4-Level English Ability | Read & Write? | Read? | Read? Write? | Educ. Attain. |
|------|--------|-----|-----------------|-------------------------|-------------------------|---------------|-------|--------------|---------------|
| 1850 | ✓ | | | | | ✓ | | | |
| 1860 | ✓ | | | | | ✓ | | | |
| 1870 | ✓ | | | | | | ✓ | | |
| 1880 | ✓ | | | | | | | ✓ | |
| 1890 | | | | | | | | | |
| 1900 | ✓ | | ✓ | ✓ | | | | ✓ | |
| 1910 | ✓ | | ✓ | ✓ | | | | ✓ | |
| 1920 | ✓ | | ✓ | ✓ | | | | ✓ | |
| 1930 | ✓ | | ✓ | ✓ | | ✓ | | | |
| 1940 | ✓ | | | | | | | | ✓ |
| 1950 | ✓ | | | | | | | | ✓ |
| 1960 | ✓ | | | | | | | | ✓ |
| 1970 | ✓ | | ✓ | | | | | | ✓ |
| 1980 | ✓ | | ✓ | | ✓ | | | | ✓ |
| 1990 | ✓ | | ✓ | | ✓ | | | | ✓ |
| 2000 | ✓ | | ✓ | | ✓ | | | | ✓ |
| 2005 | | ✓ | ✓ | | ✓ | | | | ✓ |
| 2010 | ✓ | | ✓ | | ✓ | | | | ✓ |
| 2015 | | ✓ | ✓ | | ✓ | | | | ✓ |

ways of asking about literacy reflect in part changing public perceptions of what it means to be a “literate” person. Census interest in literacy per se was gone altogether by 1940, after which questions about schooling (educational attainment) were asked instead, again perhaps reflecting changing public perceptions and values (Anderson, 2015).

The rightmost column of Table 1 shows years for which information about education is available. Responses to questions asked about individuals’ years of schooling or educational attainment can be harmonized across the years at either of two levels relevant to identifying LESLLA adults: No schooling at all, or completed 4th grade or less. Of these two alternatives, the 4th grade or lower is used as it better reflects the backgrounds of most adults generally considered to be LESLLA learners.

FINDINGS

Figure 1 shows the adult (age 16 and above) population of the United States from 1850-2015. As indicated in Table 1, these data are based on decennial censuses every 10 years from 1850-2010, with the exception of 1890, and the American Community Survey in 2005 and 2015. The sizes of both the native-born and immigrant adult populations are displayed in the figure.

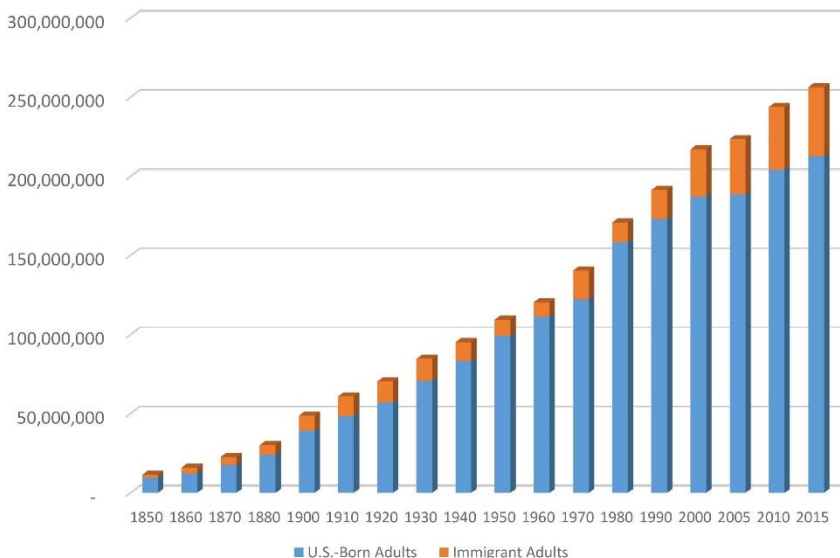


Figure 1: United States population, native-born and immigrant adults, aged 16 and above.

Although both of these groups grew dramatically, their relative sizes have fluctuated considerably over the years, as shown in Figure 2. The percentage of the United States adult population comprised of immigrants reached a peak of 23% in 1860 and generally declined down over time until 1980 when it reached its lowest value of 7%, after which it started increasing again, rising to 17% by

2015. These trends reflect, of course historical changes in immigration policies and migration flows (Bayor, 2016) along with changes in population fertility and longevity.

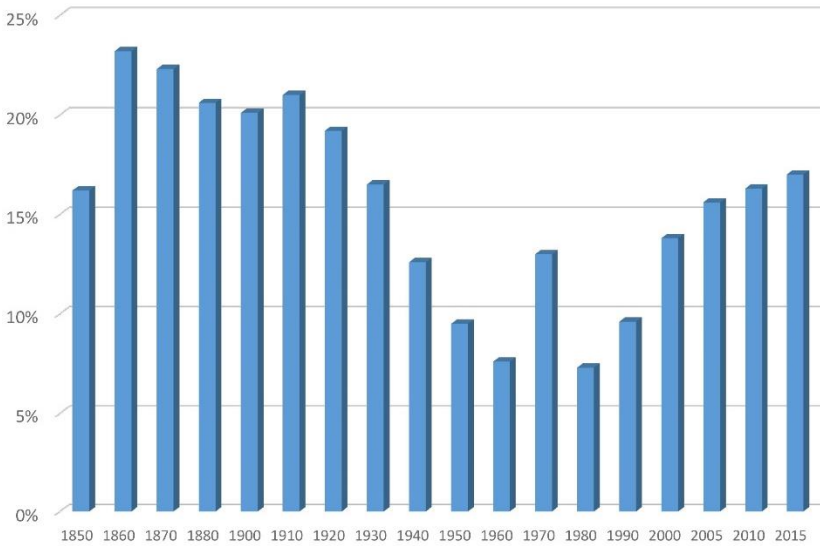


Figure 2: Percent of United States adult population, age 16 and above, comprised of immigrants.

The effects of historical changes in migration flows can be seen in the numbers of recent (i.e., within the preceding five years) adult immigrants in the United States, as shown in Figure 3. The percentages shown in the figure are the percent of United States adults who are recent immigrants, which should closely follow the size of incoming immigrant streams preceding the years in question. Across the years of census data for which such information about recency of immigration is available, we see a couple of noteworthy trends. The largest percentage in the figure is for 1910, in which nearly 5% of the adult United States population were recent immigrants. This corresponds to the well-known large streams of immigrants coming to the United States from Europe in the first decade of the 20th century. In the subsequent decades following World War I, immigration policy changed dramatically in the United States and the size of the incoming streams of migrants were correspondingly much smaller in the 1920 and 1930 census data, as shown in Figure 3. There was no recency of immigration data available in census data in 1940, 1950 or 1960, but starting in 1970 the recency data was regularly collected again. Between 1970 and 2015, the percentage of the United States adult population that was recent immigrants remained relatively stable, varying between 2 and 3%, reflecting new immigration policies drawing immigrants primarily from the western hemisphere (Bayor, 2016).

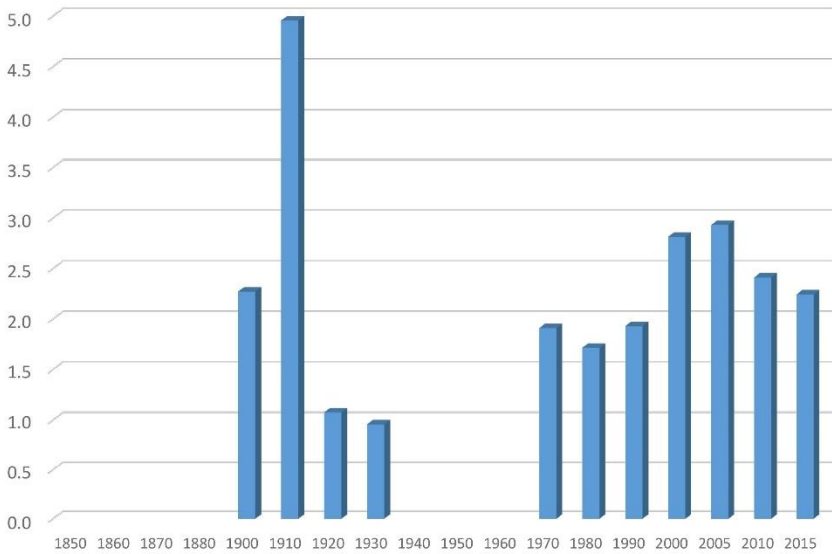


Figure 3: Percent of United States adult population, age 16 and above, who are recent immigrants.

English Language Status

Figures 4 and 5 display the English language status of immigrant adults in the United States. Between 1900 and 1930, the census asked whether individuals spoke English or not; for those years, the figures display the percentage of adult immigrants who did not speak English. Between 1980-2015, four-level judgments of English speaking ability were recorded: “not at all”, “not well”, “well” or “very well”. For these years, Figure 4 displays the percentage of adult immigrants who spoke English “not at all” whereas Figure 5 displays the larger percentages of adult immigrants who spoke English either “not at all” or “not well”. Two bars are shown in the figures for each year, one for adult immigrants who have been in the United States five or more years (left-hand bars) and one for recent immigrants who have been in the United States less than five years (right-hand bars).

The same data are shown in Figures 4 and 5 for the years 1900-1930, whereas the two figures display data derived in two ways from the four-level proficiency reporting scales used in 1980-2015: Figure 4 shows for 1980-2015 the percentage of adult immigrants who speak English “not at all” whereas Figure 5 shows the percentage who speak English either “not at all” or “not well”.

One trend is quite clear in these figures across historical periods and different reporting methods for English proficiency: at each point in time, the proportion of recent adult immigrants with a low level of English speaking ability is substantially less than the proportion for adult immigrants who have lived in the United States five years or longer. At first glance, this may seem counterintuitive, since we might expect English to be gradually acquired over time as immigrants continue living in the United States. Many factors enter into the comparisons in these figures, however. Immigrants who have lived in the

country for longer periods of time tend to be, in comparison with more recently arrived immigrants, older, less educated, and more linguistically isolated from English, all of which may depress levels of English acquisition and use (Fishman, 2016).

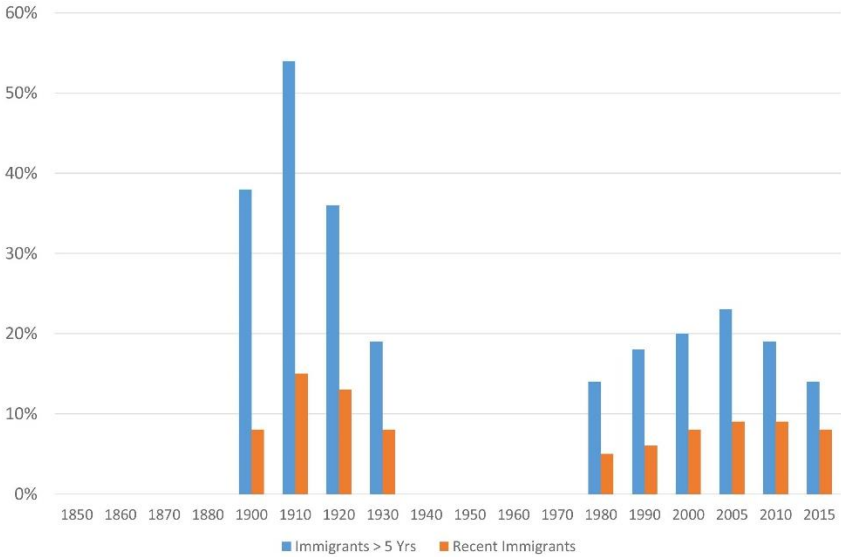


Figure 4: Percent of adult immigrants in the United States who do not speak English.

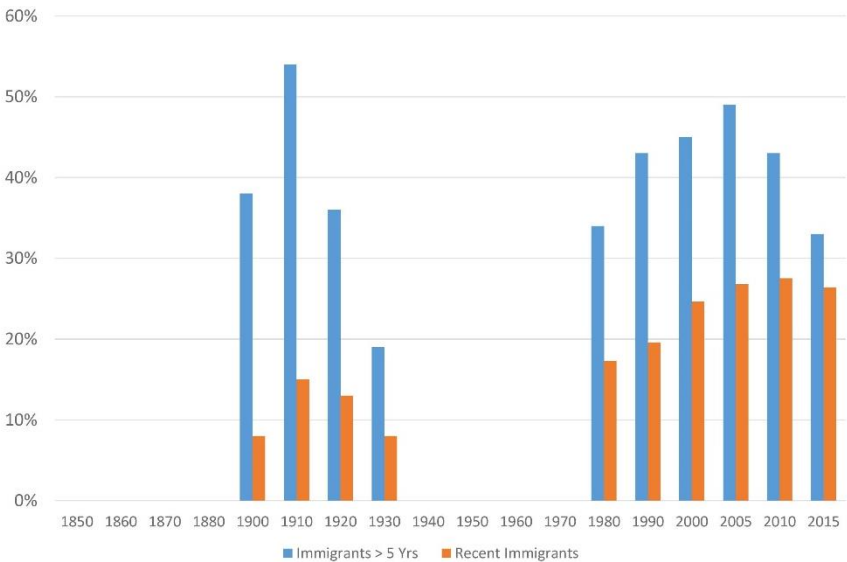


Figure 5: Percent of adult immigrants in the United States who either do not speak English or speak English "but not well".

Historical trends are more difficult to interpret in Figures 4 and 5, particularly comparisons between the earlier group of years (1900-1930) and the later group of years (1980-2015) which confound differences in how English language speaking ability was reported (Anderson, 2015; Gauthier, 2002). Within either group of years, however, certain historical trends are apparent. Within the earlier group of years (1900-1930), there is a large peak, reaching over 50% in 1910, of the percentage of adult immigrants who did not speak English. This high peak reflects in part the “push” of historical and economic forces within sending countries (e.g., Ireland, Italy, China) that shaped the migrant streams of the late 19th century and early decades of the 20th century prior to World War I (Bayor, 2016). These shifting English language data also reflect the United States laws and policies affecting immigrants’ entrance, settlement patterns and integration experiences including of course English language acquisition and use.

Within the later years of available data (1980-2015), some other historical trends can be seen. Regardless of which operational definition of low English speaking proficiency is used (Figure 4 or Figure 5), the percentage of low proficiency English speakers in the adult immigrant population rises dramatically between 1980-2000 and then diminishes between 2000 and 2015. Among recent adult immigrants, the percentage of low-proficiency English speakers steadily increased between 1980 and 2000 and then has stayed relatively constant between 2000 and 2015.

Literacy

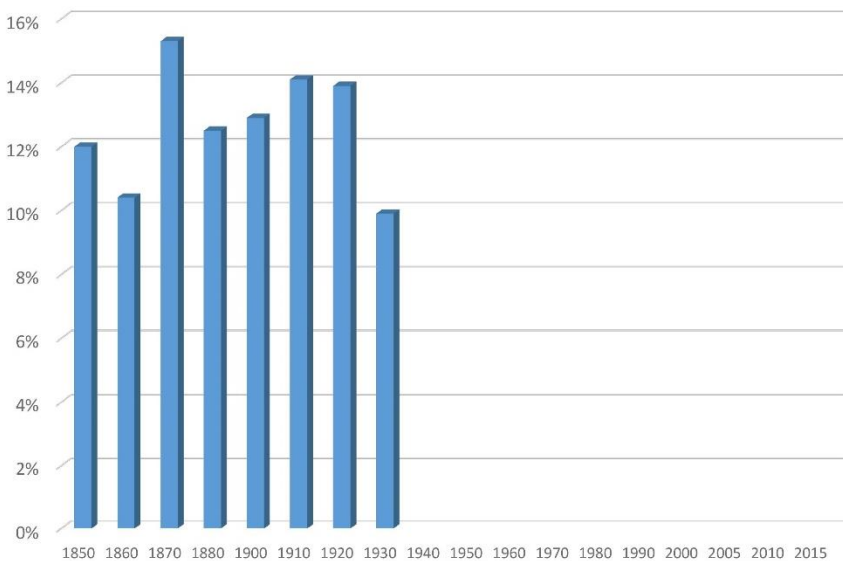


Figure 6: Percent of adult immigrants in the United States not literate in any language.

As indicated in Table 1, individuals were asked if they were literate in any language in censuses between 1850 and 1930. As the table shows, in some years

individuals were asked if they could read or write (in any language), in other years they were asked just about reading, and in still other years they were asked separately about reading and writing. Figure 6 displays the percentage of immigrant adults who indicated that they were not literate in any language (regardless of their format). As the figure shows, that percentage varied between 10 and 15% of the adult immigrant population over the years.

The corresponding numbers of adult immigrants who were not literate in any language over these years is shown in Figure 7. That number rises abruptly as the immigrant population grew in the latter half of the 19th century, reaching a peak of just over 1.8 million in 1920.

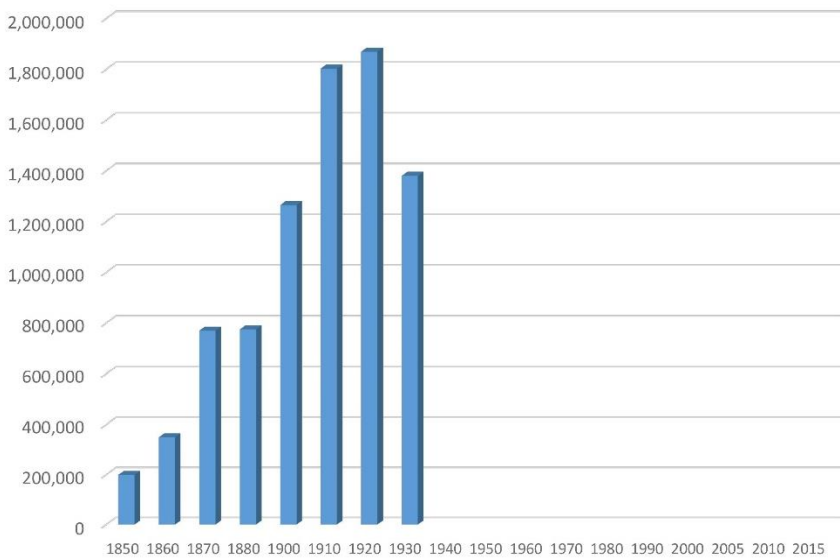


Figure 7: Number of adult immigrants in the United States not literate in any language.

Education

As indicated in Table 1, the census has included educational attainment since 1940. The two lowest education levels that are consistently distinguished in data across these census years are relevant to the identification of LESLLA adults: (1) no education, or (2) 4th grade or below educational attainment. We will use 4th grade or below as the educational threshold for identifying LESLLA adults rather than the overly restrictive no education at all; although this may seem an arbitrary choice, in my experience adults with only a few years of schooling face similar integration and further education challenges as those with no schooling whatsoever.

Figure 8 shows the percentage of adult immigrants in the United States who had a 4th grade or lower level of educational attainment at each point in time. In 1940, slightly more than 1 in 4 (25%) of the adult immigrants in the United States had a 4th grade or lower education. That percentage steadily declines over time until it appears to level off around 7 - 8 % starting in the year 2000. These year-

to-year changes in the education of the adult immigrant population reflect not only differences in the educational backgrounds of successive waves of immigrants, but also the increased level of education of immigrant children who may not be of adult age in one census but who become more educated adults in succeeding censuses in which they are part of the adult immigrant population. Furthermore, the mortality of the older, less educated adult immigrants is also part of the declining low educational status of the adult immigrant population.

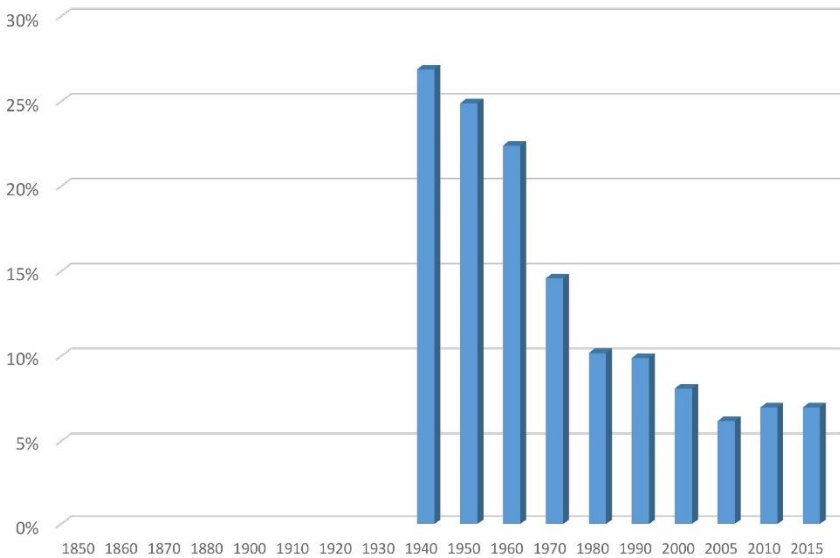


Figure 8: Percent of adult immigrants in the United States with 4th grade or lower educational attainment.

Literacy and Education

The next step in highlighting the demographic history of LESLLA adults in the United States is to combine information about literacy available for the years 1850-1930 with information about low educational attainment available for the years 1970-2015. Figures 9 and 10 display the percentages and numbers, respectively, of adult immigrants at each year who are not literate in any language (1850-1930) or have an educational attainment of 4th grade or less (1970-2015).

The percentage of adult immigrants with no more than a 4th grade education steadily declines over the years until it reaches a level between 6% - 8% where it has remained in recent years. The number of adult immigrants in the United States declined rapidly from over 3 million in 1940 down to nearly half that many in 1980 and then began rising rapidly again up to the 1940 level of just over 3 million. There are of course many factors underlying these trends, including changing immigration patterns drawing more highly educated immigrants from Europe that changed to one drawing less educated immigrants from Southeast Asia and Latin America. We will discuss this in more depth below after we have finished refining this portrait of adult immigrants into a sharper picture of adult LESLLA immigrants.

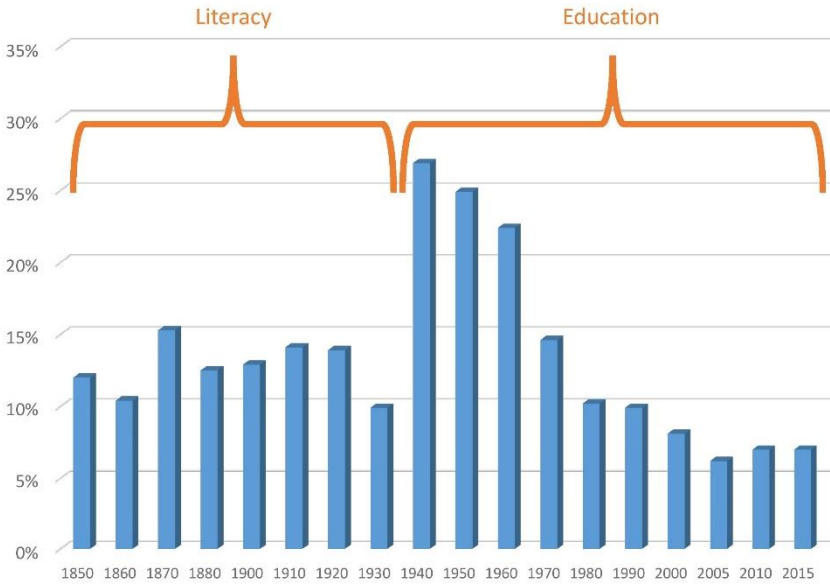


Figure 9: Percent of adult immigrants in the United States not literate in any language or with 4th grade or lower educational attainment.

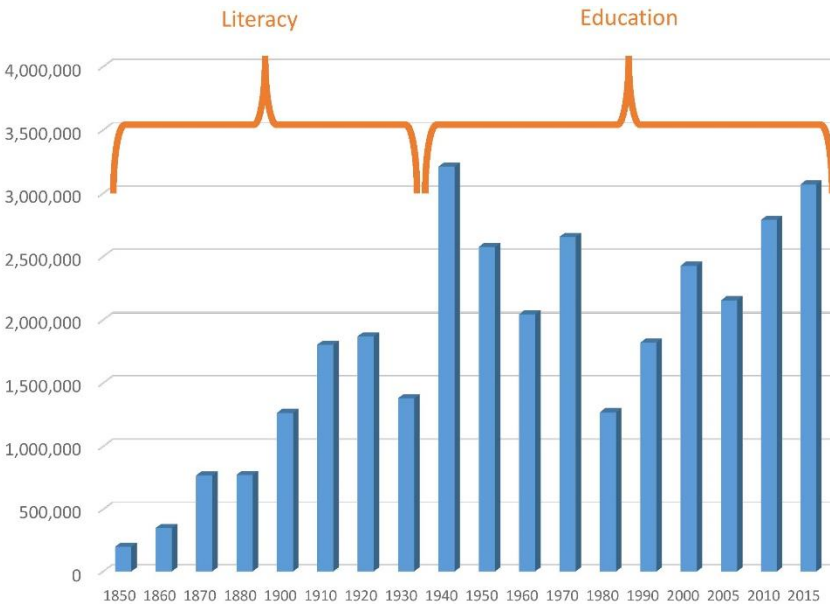


Figure 10: Number of adult immigrants in the United States not literate in any language or with 4th grade or lower educational attainment.

LESLLA Adults

To this point we have identified adult immigrants in the United States who were either not literate in any language or who had a 4th grade or lower level of

education. To qualify as a LESLLA adult for present purposes, an immigrant adult must be either not literate in any language (1850-1930) or have a 4th grade or lower educational attainment (1940-2015) and not speak English well. For the spoken English proficiency criterion, the data shown in Figure 5 are used: not speaking English (available for the years 1900-1930) or not speaking English well (available for the years 1980-2015). Figure 11 shows the counts of LESLLA adults in the United States estimated by combining these linguistic data from Figure 5 with the literacy and education data from Figure 10.

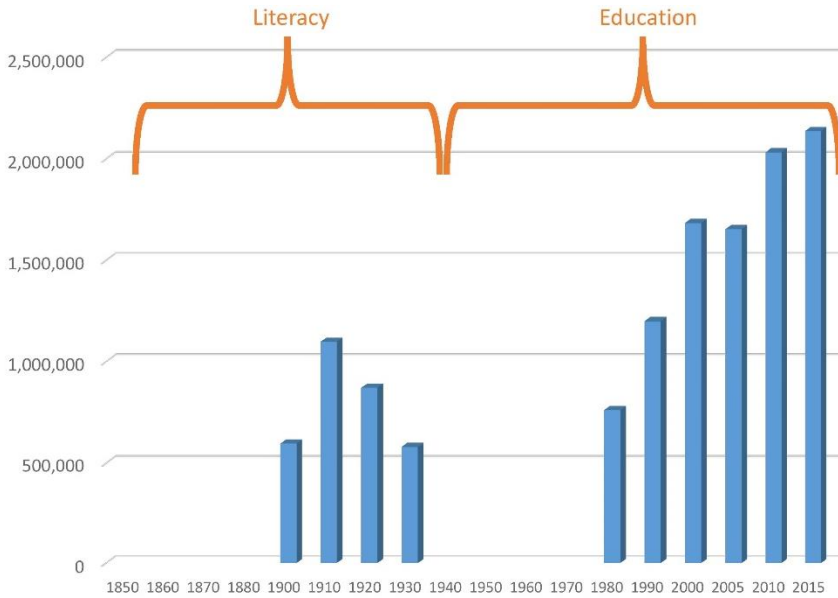


Figure 11: LESLLA adults in the United States.

The estimated number of LESLLA adults in the United States in 1900, the first year these data are available, is slightly over a half million. That number doubles to over one million a decade later in 1910. It thereafter declines back down over the next two decades to one half million in 1930. A half century later in 1980, when these counts are next available, the number of LESLLA adults has increased to about three quarters of a million. The numbers thereafter steadily increase until they exceed two million LESLLA adults in the United States in 2010 and 2015. As a percentage of the total adult (age 16 and above) population of the country, the count of LESLLA adults peaked at 1.8% in 1910 and has been relatively steady at 0.8% in the years since 2000.

A number of things affect the changing counts of LESLLA adults in the United States from one time period to the next. There are processes that add to the counts of LESLLA adults: the arrival of new LESLLA adult immigrants; the coming of age of immigrant children not counted as LESLLA adults at one time point but later enumerated as LESLLA adults at a subsequent time point. There are processes that decrease these counts as well: adults classified as LESLLA at one time point acquiring sufficient literacy, education or English proficiency as

adults to no longer be enumerated as LESLLA adults at a subsequent time point. LESLLA adults dying or emigrating back out of the United States also diminish the count of LESLLA adults at later time points. It is the net results of these additive and subtractive population processes that are reflected in the changes shown across time in the counts of the LESLLA adults.

Some further insight into the role of continuing immigration of LESLLA adults in these processes can be seen in Figure 12. Figure 12 breaks down the counts of LESLLA adults in the United States by recency of immigration. The bottom portion of each bar represents the number of LESLLA adults who have been in the United States 5 or more years at the time point, whereas the top portion of the bar represents the number of recently arrived (i.e., in the United States less than 5 years) LESLLA adults at that time point.

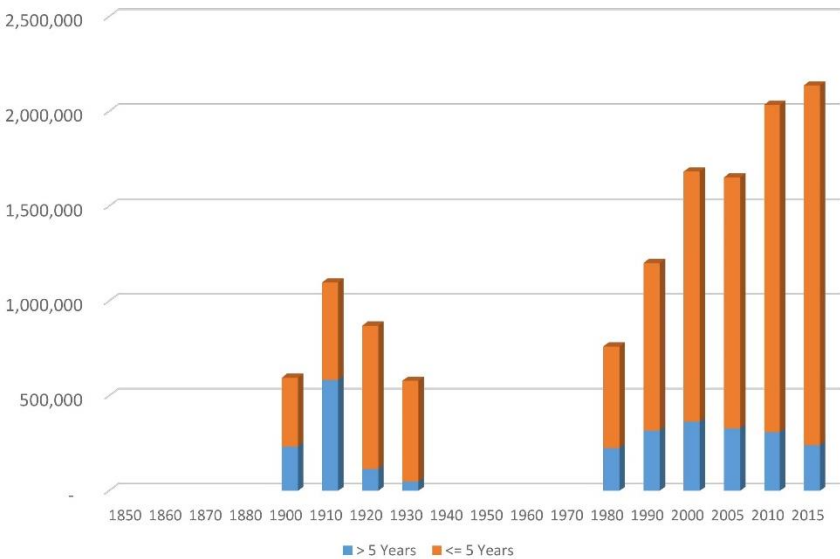


Figure 12: LESLLA adults in the United States by recency of immigration.

Several important points can be glossed from Figure 12. Most LESLLA immigrants in recent years have integrated/assimilated into the United States within 5 to 10 years after arrival and no longer are classified as LESLLA adults using data in subsequent census or ACS surveys. A relatively large group of recently arrived LESLLA adults seen at one time point are no longer enumerated as LESLLA adults at the next time point. Much of this is likely due to their improved English speaking ability, but there may also be some gains in education during their late adolescent and adult lives that remove them from the LESLLA category at the next time point. There is a much smaller but relatively stable sized population of LESLLA adults who evidently do not acquire sufficient English speaking ability or education and thus remain in the LESLLA category.

An example may help illustrate this interpretation of the data. Consider the LESLLA adults in the U.S. shown in the 2010 bar of Figure 12. This bar displays the relatively large number of LESLLA adults who had been in the U.S. for less

than 5 years in the top portion of the bar and the relatively small number who had been in the U.S. for 5 or more years in the bottom portion of the bar. The population of LESLLA adults in the U.S. for less than 5 years in 2010 will have been in the U.S. for 5 or more years in 2015 unless (1) they died, (2) they emigrated out of the U.S., or (3) their educational attainment or English proficiency increased between 2010 and 2015 so that they are no longer counted in the LESLLA category. Stated another way, the top portion of the 2010 bar should be included in the bottom portion of the 2015 bar, unless (1), (2) or (3) occurred between 2010 and 2015. Since the top portion of the 2010 bar is much larger than the bottom portion of the 2015 bar, many of the 2010 LESLLA adults evidently followed path (1), (2) or (3). Additional research is needed to confirm the working assumption here that relatively of the recently arrived LESLLA adults enumerated in 2010 died or emigrated between 2010 and 2015, implying that the vast majority of LESLLA adults who had been in the country less than 5 years in 2010 evidently integrated into the U.S. by 2015 to the extent that they are no longer classified as LESLLA adults.

DISCUSSION

A rough initial portrait of LESLLA adults living in the United States has been sketched out over time, using very broad brush strokes. But it is nevertheless clear that the LESLLA population has been growing dramatically in recent years. By and large it appears that most LESLLA adults acquire sufficient English language speaking ability and/or additional education to “move out” of the LESLLA category by the next census or ACS survey. This hardly means that they have all the language and literacy skills they may need to meet their goals as new Americans or that they are successfully integrating into society in the ways they wish. This portrait needs to be filled in with additional research and analysis. Finer brushes utilizing other variables that are available such as detailed age, years in the United States, economic and social outcome indicators, and the like can help flesh out the patterns of immigrant integration and suggest better policies, supports and services to help them better resettle in their new home. Other census variables that would be useful in painting richer portraits of the integration of LESLLA immigrants would include employment, earnings, housing and linguistic isolation.

The preceding interpretations of changes over time in the LESLLA numbers must be considered tentative because the underlying trends and processes described need further documentation and analysis by incorporating more details available in the census data into the analyses. Demographic characteristics including age, national origin and mother tongue, can identify “synthetic cohorts” of LESLLA adults that can be followed across the series of census cross-sections available as they age and acculturate/assimilate to the United States. A complete population model of these cohorts of LESLLA immigrants would be particularly valuable, incorporating estimates of LESLLA immigration, English language acquisition, educational development as well as mortality and outmigration.

Table 2

United States Decennial Census and American Community Survey (ACS) data available for selected characteristics of adult immigrants, 1850-2015.

| Year | Census | ACS | City/ County/ State | Age | Sex | National Origin | Mother Tongue | Lang. Spoken in Home |
|------|--------|-----|---------------------------|-----|-----|--------------------|------------------|----------------------------|
| 1850 | ✓ | | ✓ | ✓ | ✓ | ✓ | | |
| 1860 | ✓ | | ✓ | ✓ | ✓ | ✓ | | |
| 1870 | ✓ | | ✓ | ✓ | ✓ | ✓ | | |
| 1880 | ✓ | | ✓ | ✓ | ✓ | ✓ | | |
| 1890 | | | | | | | | |
| 1900 | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 1910 | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1920 | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 1930 | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 1940 | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 1950 | ✓ | | ✓ | ✓ | ✓ | ✓ | | |
| 1960 | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 1970 | ✓ | | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 1980 | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 1990 | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 2000 | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 2005 | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 2010 | ✓ | | ✓ | ✓ | ✓ | ✓ | | ✓ |
| 2015 | | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |

Table 2 displays the availability of some of the additional census variables that would be helpful in better modeling and understanding the experience of these LESLLA populations. These include more detailed specifications of the national origin, mother tongue and year and age of immigration, gender, language spoken in the home and linguistic isolation, among others. The combination of more information about national origin and mother tongue would be very

helpful in examining specific streams of LESLLA migration and resettlement at different historical times.

Another extension of the analyses reported here would disaggregate the U.S. national LESLLA population by various geographical domains. As indicated in Table 2, geographical identifiers of such entities as towns, cities and states are available in all of the decennial census and ACS data sets. Certainly such analyses would need to pay close attention to the subsample sizes and accompanying sampling errors associated with population estimates for smaller geographical areas.

These are some of the ways in which future research, advocacy and policymakers can utilize these freely available data sets to better understand and support the growing numbers of LESLLA adult immigrants in the United States. A richer research-based portrait will provide better understanding of and support for LESLLA adults in the United States.

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