## Contractor Report

Projections of Non-English Language Background and Limited English Proficient Persons in the United States to the Year 2000

National Center for
Education Statistics

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Projections of Non-English Language Background
and Limited English Proficient Persons in the
United States to the Year 2000
Executive Summary
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The non-English language background (NELB) ${ }^{1}$ population is projected to increase from 28 million persons in 1976 to 30 million in 1980 , 34.7 million in 1990 , and 39.5 million in the year 2000. The total number of limited English proficient (LEP) ${ }^{2}$ children ages $5-14$ estimated for 1976 is 2.5 million, with a drop to 2.4 million in $1980^{3}$ and a gradual increase to 2.8 million in 1990 and 3.4 million in $2000 .^{4}$

1 Persons of any age whose usual or second individual language, usual or second household language, or mother tongue is other than English, whether or not they usually speak English.

2 Persons of non-English language background (as defined above) who are also limited ir. English proficiency. Limited English proficiency has been determined by a language test, the Language Measurement and Assessment Inventories (LM \& Al), and statistically linked to a larger non-tested population by a set of census-type questions which compose a measure of English language proficiency or MELP. In this report, LEP refers only to the 5-14 age band, to which the MELP can be validly linked.

3
The temporary declines seen in many NELB and LEP projections for younger age groups reflect the projected temporary declines for the younger age groups in the entire United States population.

4
It should be noted that the figure of 3.6 million children of limited English proficiency found in the Children's English and Services Study referred to the entire 4-18 age band and was based on extrapolation. The LEP figures presented here are for the 5-14 age band only.

These are among the findings from a recent study conducted by InterAmerica and its subcontractor, WESTAT, Inc. for the National Center for Education Statistics (NCES). The study's purpose was to make demographic projections of the LEP population in the United States for the years 1980, 1985, 1990, 1995, and 2000, using 1976 as the base year. NELB projections were also made because they are a prerequisite for LEP projections.

A major advance in the science of demographic projections was made in the use of the Cohort Component Prevalence Rate Method. The projections do not include complete data on such demographic changes as the Cuban sea-lift of 1980, Indochinese refugee influx of the late 1970's, and undocumented Hispanic immigration of the last decade. (See Caveats.) Nevertheless, the results represent the only in-depth information about numbers of LEP persons by age, state, and language group, either at present or in the future.

The rest of this report is organized as follows:

- Caveats
- Results of non-English language background (NELB) projections by:
- Language
- Age
- State
- Language and age
- Language and state
- Results of-limited English proficiency (LEP) projections by:
- Language
- Age
- State
- Language and age
- Language and state
- Sources of data
- Related reports
- About the authors
- Appendix

Charts which relate to the results are found in the text. All tables are grouped in the appendix. Df course, the results presented below show anticipated and not actual changes in number. The actual figures are not totally predictable due to unexpected changes in fertility, mortality, and migration patterns.

Three issues must be raised concerning the base population projections: 1) lack of usable information about illegal immigration, 2) lack of reliable information on refugees, and 3) inability to differentiate the growth rates and age structure of the base population by all specific language groups.

The most serious caveat regards immigration of illegals or undocumented aliens. The Census 8ureau has summarized all the available studies on illegal immigration, and it has found that the number of illegals present in the United States is estimated by various studies to be anywhere from 2.9 to 12 million. Many of these studies are strictly guesswork. Furthermore, the rate of flow of illegals into and out of the United States is indeterminate. With no definitive source to draw upon and with an overwhelming probability of error, it was decided not to address the question of illegal immigration in making projections in this study.

The recency and volatility of the Indochinese and Cuban refugee influx indicates the difficulty of considering world political events in making population projections. A 1979 NCES study by Goor indicated almost 100,000 Indochinese children ages 5-18 resided in the United States as of October 31, 1979 -- almost double the reported number for the 1977-1978 school year. The trends of such political refugee immigration are so unpredictable that it is impossible to involve them in a systematic projection methodology. Although the 1980 Census can provide some data on Indochinese refugees, reliable information concerning recent Cuban refugees will have to emerge from a later Census.

Another important caveat concerns inability to differentiate the growth rates and age structure of the base population by all relevant language groups. Because of this inability, projections for some of the specific non-Spanish European language groups may have been overestimated (e.g., Polist.), and projections for some of the Asian language groups (e.g., Vietnamese) may have been underestimated. It is impossible to adjust the figures further in any realistic way without knowing more about the growth rates and age structure of the language groups.

Four issues are present in regard to LEP prevalence rates: 1) language shift through intermarriage and acculturation, 2) immigration, 3) lack of information on the expected effect of school experiences on LEP rates, and 4) use of a single set of non-Spanish LEP rates to apply to the SIE. These issues are explained in detail in the project report, which was mentioned under Related Reports.

Despite the caveats raised here, this study has produced the best available information on the numbers of NELB and LEP individuals in the United States to the year 2000. It is the only study that makes such projections by language, age, and state. With the proper cautions, the projections can provide extremely useful data for educational policy making.

## NELB Results by Language (See Chart 1 and Table 1.)

- The Spanish NELB population increases from 10.6 million ( 38 percent of total) in 1976 to 18.2 million ( 46 percent) in 2000.
- The Asian ${ }^{5}$ NELB population increases from 1.8 million to 2.3 million.
- The combined non-Spanish/non-Asian ${ }^{5}$ NELBs increase from 15.5 million to 19 million.
- Growth of the Spanish group (by 7.6 million) accounts for two-thirds of the total growth of the NELB population (by 11.5 million).

Chart 1: Non-Engllsh Language Background Projections by language Group -- 1976 to 2000 (All Ages)


5
In this report, "Asian" refers to the following combined language background groups: Chinese, Filipino, Japanese, Vietnamese, and Korean. Other Asian language background groups, which include smaller numbers of persons, are included in the "Other" or "non-Spanish/non-Asian" category purely for the sake of classification.

- Although all age groups show overall gains, distinct differences in number of NELBs appear for various age bands, with.most of the "younger" age groups (5-14, 15-24, and 25-34) experiencing significant but temporary declines and with "older" age groups ( $35-54$ and 55+) exhibiting more dramatic and steady increases than younger groups.
- The 0 to 4 age group rises steadily from 1.8 million in 1976 to 2.6 million in 1990 and stays at that level to 2000.
- The 5 to 14 age group drops from 3.8 million in 1976 to 3.6 million in 1980 then steadily rises to 5.1 million in 2000.
- The 15 to 24 age group grows from 3.8 million in 1976 to 4.1 million in 1980, drops to 3.7 million in 1990 and 1995, and rises to 4.3 million in 2000.
- The 25 to 34 age group grows from 3.6 million in 1976 to 5.2 million in 1990 , and declines to 4.7 million in 2000.
- The 35-54 age group grows most rapidly from 7 million in 1976 to 13.1 million in 2000.
- The 55+ age group grows steadily from 7.9 million in 1976 to 11 million in 2000.

NELB Results by Major States (See Chart 3 and Tables 3, 4, and 4a.)

- There is a heavy concentration of NELBs in three states, California, Texas, and New York, with these three states containing 45 percent of all NELBs in 1976 and 48 percent in 2000.
- California NELBs increase from 5.2 million in 1976 to 8.3 million in 2000.
- New York NELBs increase from 4.4 million in 1976 to 5.1 million in 2000.
- Texas NELBs increase from 3 million in 1976 to 5.6 million in 2000 .


Chert 3: Mon-English Language Background Projections by Major Stares -- 1976 to 2000 (Ail Ages)


- Spanish NELBs are much younger than the rest of the NELB groups, with 2.6 million Spanish NELBs ages 5-14 comprising 62 percent of all 5-14 NELBs in 1976; and 3.5 million Spanish NELBs ages $5-14$ comprising 70 percent of all 5-14 NELBs in 2000.
- In 1976, 22.6 percent of Spanish NELBs are 5-14 years old, compared to 13.6 percent of Asian NELBs and 7.7 percent of non-Spanish/nonAsian NELBs, and similar results occur for all projection years to 2000.
- Asian NELBs have an age structure similar to that of NELBs as a whole, except for the older age groups; the Asian 35-54 group dominates after 1985.
- The non-Spanish/non-Asian NELB group has more individuals in the 35-54 and 55+ age bands throughout all projection years than does the Spanish NELB group, although there is a very dramatic spurt of the 35-54 year old Spanish NELBs after 1990.


## NELB Results by Language and State

- Three states -- California with 2.9 million ( 28 percent), Texas with 2.6 million ( 24 percent) and New York with 1.4 million ( 14 percent) -- account for 66 percent of all Spanish NELBs in the nation in 1976.
- By 2000 these three states have 68 percent of the national total of Spanish NELBs, with California having 5.2 million or 29 percent, Texas 5 million or 27.6 percent, and New York 2 million or 11 percent.
- The Asian population in 1976 is concentrated in California with . 70 million ( 39 percent), Hawaii with .24 million ( 13 percent) and New York with .18 miliion ( 10 percent).
- California and Hawaii show gains in absolute number of Asian NELBs between 1976 and 2000, while New York stays the same as in 1976.


## LEP Results by Lanquage (See Chart 4 and Table 5.)

- Spanish, Asian, and non-Spanish/non-Asian LEPs all experience slight declines during the decade of the 1980 's but are projected to rise strongly or return to the original level until the year 2000.
- Between 1976 and 2000 there is an increase of 880,000 LEP persons; of this number, 840,000 or 95.5 percent are accounted for by the Spanish LEP population.
- Spanish LEPs move from 1.8 million or 71 percent of all LEPs in 1976 to 2.6 million or 77 percent of all LEPs in 2000.

Asian LEPs include approximately .13 million in both 1976 and 2000.
Non-Spanish/non-Asian LEPs have .6 million in 1976 and the same number in 2000.

- LEP-to-NELB ratios (LEP rates) vary considerably by language, with the highest LEP rates (.75) found among Spanish and Vietnamese populations and the usual range being .41 to .53 .

Chart 4: Limited Engllsh Profleiency Prolections by Language Group -- 1976 to 2000 (Ages 5-14)


## LEP Results by Age (See Chart 5 and Table 6.)

- There is a slightly greater overall increase in 5-9 year old LEPs than in 10-14 year old LEPs between 1976 and 2000.
- The younger age group moves from 1.3 million to 1.8 million and the older age group increases from 1.3 million to 1.6 million.

LEP Results by Major States (See Chart 6 and Tables 7 and 8.)

- California and Texas show overall gains in number of LEPs between 1976 and 2000 (California, .6 million to .9 million; Texas, .5 million to .9 million), while New York stays the same at .5 million in 1976 and 2000.
- LEPs are more highly concentrated than NELBs in these three states, with the percentage of the national LEP population clustered in these states increasing from 63 percent to 67 percent between 1976 and 2000, as compared to the percentage of the national NELB population in these states rising from 45 percent to 48 percent in that period.

LEP Results by Language and Age

- Younger Spanish LEPs grow faster in numbers than older Spanish LEPs between 1976 and 2000 (ages 5-9, . 9 million to 1.4 million; ages 10-14, . 9 million to 1.2 million).
- There is a pronounced increase in the number of younger Asian LEPs between 1976 and $2000(70,000$ to 81,000$)$ and a slight drop in older Asian LEPs $(56,000$ to 54,000$)$.
- There is little change in the number of non-Spanish/non-Asian LEPs in both age groups between 1976 and 2000 (. 3 million in each age group in 1976 and 2000).

LEP Results by Language and State

- The 5panish LEPs are concentrated largely in the three key states of California, Texas, and New York.
- Of the total growth of 880,000 LEPs projected between 1976 and 2000, a full 700,000 ( 79.5 percent) come from just the Spanish speaking LEPs in these three states.


Chart 6: Limited English Proficiency Projections by Major States -- 1976 to 2000 (Ages 5-14)


The major sources of data included the 1975 Current Population Survey-Survey of Languages Supplement (CPS-SLS), the 1976 Survey of Income and Education (SIE), the 1978 Children's English and Services Study (CESS), and the Bureau of the Census population projections to the year 2000.

The CPS-SLS, conducted by the Bureau of the Census, used stratified, multi-stage cluster sampling of households and was used as a pilot test for certain questions which were later used in the SIE. The CPS-SLS asked questions about current individual language, current household language, mother tongue, ability to speak and understand English, birthplace, year of immigration, and ethnic origin.

The SIE was conducted by the Bureau of the Census in spring 1976. The SIE questions on language background and current usage were developed by NCES, which provided partial financial support to augment the SIE sample and to add the language questions. The survey sample consisted of 51 independent state samples that totaled nearly 160,000 occupied households. Personal interviews were completed in nearly 95 percent of these housenolds.

The CESS was jointly sponsored by the National Institute of Education (NIE) and NCES to obtain counts of LEP children for the nation and for four smaller areas: California, Texas, New York, and the rest of the nation. The CESS used stratified, multi-stage sampling with 35,000 households screened and approximately 2,000 identified as NELB, and thus eligible for inclusion. Ultimately, 1,909 children ages 5-14 and their families were included. A 13-item MELP and a specially constructed test, the LM $\varepsilon$ Al, were administered for each sampled child.

The Bureau of the Census population projections for the year 2000 are based on the Cohort Component Method, which uses age cohorts and accounts
for population change resulting from the interaction of such components as fertility, mortality, and migration.

RELATED REPORTS

The full report on this project, entitled Changes in Number of NonEnglish Language Background and Limited English Proficient Persons in the United States to the Year 2000: The Projections and How They were Made, is available from NCES.

Several bulletins have been released by NCES on results of the SIE covering such topics as geographic distribution, nativity and age distribution of language minorities; educational disadvantage of language minority persons; and birthplace and language characteristics of Hispanic and selected Asian origin persons. These are contributions of Dr. Dorothy Waggoner of NCES.

For methodological details about the SIE, see such reports as Assessment of the Accuracy of the Survey of Income and Education, report to Congress, as mandated by the Education Amendments of 1974, submitted by the Secretary of Commerce and the Secretary of Health, Education, and Welfare, dated January, 1978.

The final report of the CESS is related to the projection study. It is entitled, Lanquage Minority Children with Limited English Proficiency in the United States: Soring 1978 (O'Malley, 1979). A companion document is The Children's English and Services Study: A Methodological Review (Dubois, 1980).

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The methodology used in this projection report is the Cohort Component Prevalence Rate Method, which is a synthesis of the Bureau of the Census Cohort Component Method and standard prevalence rate techniques. This advance in demographic projection methodology is detailed in the full project report (see above).

Rebecea Oxford, director of this project, is Director of Educational Evaluation and Research at InterAmerica Research Associates, Inc. Louis Pol is Assistant Professor of Sociology at Memphis State University and an experienced demographer. David Lopez is Associate Professor of Sociology at the University of California at Los Angeles and has published numerous articles on the sociology of language. Paul Stupp is Senior Research Associate at InterAmerica with a background in human technology. Samuel Peng is Senior Research Scientist at WESTAT, Inc., and has extensive experience in data analysis and statistics. Murray Gendell is Professor of Sociology and Director of the M.A. in Demography Program at Georgetown University.

Gratitude is expressed and credit is given to Debbie D. Berryhill who designed and formatted this publication. Additionally, special thanks and appreciation to WESTAT for their graphic contributions, and last but not least to Shirley Coates and Debbie who typed and produced this report.

## Appendix

Table 1: Non-English Language Background Projections by Language Group -- 1976 to 2000 (A|I Ages)
(inmaliers in timoissands)

Table 2: Non-Engilsll Language Eackground Prolectlons by

| Year | Aye riormop |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0-4 | 5-14 | 15-24 | 25-34 | 35-54 | 55 | Tutal |
| 1976 | 1.015 .0 | 3,846.5 | 3.825 .3 | 3.639 .9 | 6.966 .3 | 7.891 .4 | 27.985 .1 |
| 19811 | 1.948 .7 | 3.636.0 | 4.096 .2 | 4.282 .7 | 7.414 .4 | 0.828.1 | 29.954.0 |
| 1985 | 2.386 .9 | 3.683.0 | 3.950 .0 | 4.807 .2 | 0.439 .3 | 9.477 .4 | 32,280.7 |
| 1990 | 2.580 .6 | 4.197 .0 | 3.707 .4 | 5.224 .2 | 9.944 .1 | 9.879 .4 | 34.741 .7 |
| 1995 | 2.611 .4 | 4.817 .9 | 3.743 .1 | $5,038.9$ | 11,697.4 | 10.263.0 | 37.150 .3 |
| 2000 | 2.604.7 | 5.049 .6 | 4,250.9 | 4.731 .7 | 13,069.2 | 10.998.0 | 39.493.3 |

Table 3: Mon-Enyllsh Language Background Projecilons by
(numbicis lin thousands)

Table 4: Nour-English Language Background Projections by
(onumbers In Ilinoisainls)

$\begin{aligned} & \text { Table 4: Non-English Language Background Projectlons by } \\ & \text { States -- } 1976 \text { to } 2000 \text { (All Ages) - Contlnued }\end{aligned}$
(numbers In (lionsanils)

Table h: Non-Engllsh Language Background Projections by
(numbiers In ilonousanils)

Table 4: Non-Engllsh Language Background Projections by
States -- 1976 to 2000 (All Ages) - Contlnued
(nimmers In (lionsarils)

-- - Flgures not projected due to small sample slize but Included In Hatlon cotals.
Table 4a: Non-English Language Background Projections by panulumoj - (41-5 soby) 0002 0) 9 [61 -- satels
(numbers in thousands)

-- - Flgures not projected due to small sample slize but Included In Natlon totals.
Table ha: Mon-Engllsh Languaga Background Projectlons by

-- - Flgures not projected due to small sample slze but Included in Mation totals.
-- - figures not projected due to small sample size but Included in Hat ion totals.

(numbers in thousands)

(ommbers in (loousands)

Table 6: Lhinlted English Proficlency Projections by Age Group -- 1976 to 2000 (Ages 5-14)
(nmmbers III (loonsands)

Table 7: LImlted English Proficlency Projectlons by

Table 8: LImlted English Proficiency Projections by
(nimbers in ilvocisands)

| Stata | Years |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1976 | 1900 | 1985 | 1990 | 1995 | 2000 |
| Alabama | -- | -- | -- | -- | -- | -- |
| Alaska | 5.4 | 5.8 | 6.0 | 6.8 | 7.7 | 7.8 |
| Arizona | 73.4 | 76.9 | 86.7 | 103.2 | 123.1 | 133.2 |
| Arkallsas | -- | -- | -- | -- | -- | -- |
| Callfornlo | 609.9 | 580.6 | 606.8 | 712.9 | 839.0 | 9122.5 |
| Colorado | 33.7 | 34.2 | 37.2 | 44.6 | 53.2 | 57.5 |
| Connecticut | 31.3 | 27.0 | 25.1 | 28.7 | 32.8 | 34.0 |
| Delaware | 2.7 | 2.4 | 2.4 | 2.8 | 3.2 | 3.3 |
| Disirict of Columbla | 2.9 | 2.5 | 2.3 | 2.2 | 2.3 | 2.2 |
| Flurlda | 84.1 | 89.0 | 99.9 | 120.4 | 145.9 | 161). 6 |
| Georgla | 11.0 | 11.0 | 11.1 | 12.0 | 13.3 | 13.5 |
| llawall | 21.0 | 20.5 | 20.8 | 23.0 | 25.5 | 25.0 |
| libilio | 5.5 | 5.5 | 6.0 | 1.11 | 8.1 | 8.6 |


-. Figures mot projected dic (1) smill samile slze but included In Nation totals.
Table 8: Llmited English Proflclency Projectlons by

| State | (numbars in ilinoisands) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Years |  |  |  |  |  |
|  | 1976 | 1980 | 1905 | 1990 | 1995 | 2010 |
| Montana | 3.4 | 3.1 | 3.2 | 3.5 | 3.9 | 3.9 |
| Nelorasko | 5.8 | 5.5 | 5.6 | 6.5 | 7.6 | 8.0 |
| Hevada | 5.3 | 5.4 | 5.7 | 6.6 | 7.8 | 8.3 |
| Hew llampslifro | 5.6 | 5.1 | 4.9 | 5.6 | 6.3 | 6.4 |
| Hew Jorsey | 83.3 | 78.4 | 77.0 | 88.8 | 101.2 | 109.1 |
| Hew Mexico | 69.2 | 68.9 | 73.9 | 86.0 | 100.5 | 106.4 |
| New York | 455.1 | 411.6 | 394. 2 | 442.6 | 503.4 | 526.4 |
| Morth Caroilna | -- | -- | -- | -- | -- | -- |
| Morth Dakota | 2.4 | 2.1 | 2.0 | 2.2 | 2.5 | 2.4 |
| Olilo | 41.4 | 36.3 | 34.6 | 37.6 | 40.8 | 40.5 |
| Oklelioma | 15.8 | 15.2 | 15.7 | 17.3 | 19.3 | 19.7 |
| Oregon | 10.5 | 9.8 | 10.0 | 11.4 | 13.0 | 13.5 |
| Penosylvania | 6.5 .9 | 58.3 | 55.5 | 61.6 | 68.7 | 69.5 |

-- Flgures not profected dive to small samyle slze but lincluded in Nat lon totals.
-- $=$ Flgures not projected due to sinall sanple slze but Included In Natlon totals.

