

#### **BROOKINGS GREATER WASHINGTON RESEARCH PROGRAM**

# Polyglot Washington: Language Needs and Abilities in the Nation's Capital

Audrey Singer and Jill H. Wilson<sup>1</sup>

# "As more

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# **Findings**

An analysis of language use and English-speaking ability in the Washington metropolitan area reveals that:

- Twenty-one percent of the Washington metropolitan region's population communicates in non-English languages at home, while in the District 17 percent of residents report speaking a language other than English at home. Regionwide, more than 100 languages are spoken.
- In the Washington metropolitan area, the "limited English proficient" (LEP) population increased by nearly 80 percent between 1990 and 2000. In total, the proportion of residents considered to have limited English speaking skills increased from 6 percent to 9 percent in the region and from 5 percent to 7 percent in the District alone.
- The region's LEP population is concentrated in inner-suburban areas both inside and outside the beltway as well as in the central corridor of the District of Columbia. The inner suburban counties of Fairfax, Arlington, Alexandria, and Montgomery have much higher LEP proportions than the metropolitan average.
- More than half of the Washington metropolitan area's limited English proficient population is Spanish speaking, while fully two-thirds of the District of Columbia's LEP population is Spanish speaking. By contrast, 25 percent of the region's LEP population, but only 12 percent of the District's LEP population, speak Asian languages.
- In the Washington region, 43 percent of the foreign-born population is limited English proficient, compared to less than 2 percent of the U.S.-born population. However, about 15 percent of the total limited English proficient population in the region was born in the United States, and this number is higher in the District, where 21 percent of the limited English speakers are native born.

While the proportion of limited English proficient speakers among all persons in the region seems small, the pace of growth is quite fast and its size in some localities is large. Service providers, including local governments, need to continue to focus their efforts on how to serve this population.



#### Introduction

In recent decades, the Washington, D.C. metropolitan area has seen remarkable growth in its foreign-born population. Early on, Washington's cosmopolitan residents were largely related to the international agencies, embassies and businesses that have long been part of the capital region. More recently, Washington's international character has changed considerably as the metropolitan area has absorbed many people from around the world who have come to work and establish new lives in the region.

Washington's internationalization, beginning largely with professionals and students in higher education, has grown through several processes. First is the continued arrival of a professional class of international residents. Second is the sizable wave of refugees who have been resettled in the region. And third are the many immigrants who arrive seeking economic opportunity, choosing Washington mainly because of family members and friends already living in the metropolitan area.

These converging processes have profoundly transformed the Washington region, from the District to the outer suburbs. As a 2003 Brookings Institution study of immigrants in metropolitan Washington demonstrated, the number of immigrants in the region has more than quintupled during the past 30 years, growing from 128,000 foreign-born persons to 832,000.<sup>2</sup> As a result, 950,000 persons in greater Washington spoke a language other than English at home in 2000.

The number of limited English speakers grew substantially during

the 1990s, causing some degree of concern. Language barriers are often a source of extreme discomfort between established residents and immigrant newcomers.3 For established communities, there can be frustration over the lack of immigrants' ability to communicate, as well as a concern over the costs of schooling the children of immigrants and providing special translation services to newcomers. For their part, adult immigrants are often ill at ease with their limited ability to speak English and most see improving their fluency in English as one of the most important pathways to economic mobility.

In this region, schools are coping with educating students who are not English proficient, and service providers are moving quickly to develop services in the multitude of languages that are needed. Most recently, in Washington, DC, Mayor Anthony Williams this past spring signed a new law designed to provide greater access to and participation in public services, programs, and activities for District residents with limited or no English proficiency.<sup>4</sup>

In light of this growing population and the new law, this paper examines the language abilities and needs of greater Washington's population, with a focus on the District of Columbia. Using U.S. Census Bureau data, we look at the growth in the limited English proficient population, the breadth of languages spoken, and the English language speaking ability of the region's population. We also examine English ability by a few key characteristics such as birthplace and age.

As greater numbers of immigrants arrive with limited skills in English,

the pressure—both for immigrants to become proficient in English and for local governments to help immigrants in their own languages—will likely grow.

### Methodology

Data for this study come from the U.S. Census Bureau. We use two separate data sets based on the "long form" questionnaire of the 2000 decennial census: Summary File 3 (SF3) and the 5-Percent Public Use Microdata Sample (PUMS). Both data sets are based on samples (SF3 is a 17% sample, while PUMS is a 5% sample) and are weighted to represent one hundred percent of the U.S. resident population. We use 1990 Census data to show change in the limited English proficient population over the past decade. The data were sufficiently different in their aggregation of language groups, however, that we were unable to compare other variables across the time period.

The language data we analyze reflect answers to the questions found on the Census long form questionnaire, "Does this person speak a language other than English at home?," "What is this language?," and "How well does this person speak English?" (See Census questionnaire on the next page and note that it refers to English *speaking* ability and not reading or writing ability.<sup>5</sup>) Tabulations for all language-related variables include only the population 5 years old and over.

Language Spoken at Home

People who indicated that they spoke a language other than English at home were instructed to write in the name of the language spoken most often. People who



knew a non-English language but did not speak it at home were excluded, as were those who knew only a few expressions of another language. Most people who spoke a non-English language at home also spoke English, but the data do not indicate which language they used most. Thus, if a person indicated that they spoke a non-English language at home, they are represented in the data as a primary user of that language.

Language names written in response to this question were coded by the Census Bureau into more than 380 detailed language categories (based on approximately 2,000 language names), which represent the terms used by the speakers themselves, not necessarily those used by linguists. The PUMS data allows access to all of these language categories. In the SF3 dataset, however, the list of 380 languages was aggregated into 39 broader groups and, in some cases, into four very broad categories.6

English Ability and Limited English Proficiency

Four choices were offered for answering the question, "How well does this person speak English?": "very well," "well," "not well," and "not at all." Respondents' answers were based on their own perception of their ability to *speak* English as well as the ability of other household members for whom they filled the census questionnaire.

In this study, limited English proficiency (LEP) is defined as speaking English less than "very well." In other words, all people who indicated that they spoke English "well," "not well," or "not at all" are considered limited English proficient (LEP). This is also the definition of limited English proficiency set forth in the D.C. Language Access Act.

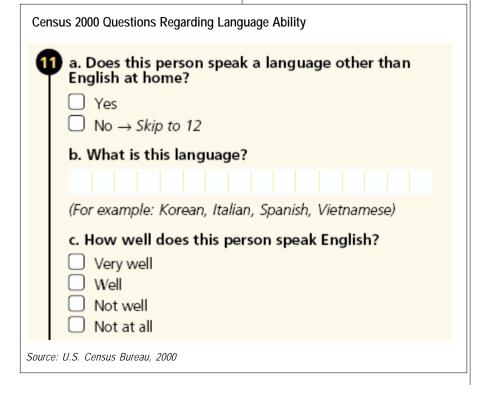
### **Findings**

A. Twenty-one percent of the Washington metropolitan region's population communicates in non-English languages at home, while in the District 17 percent of residents report speaking a language other than English at home.

Fluency in non-English languages can be an asset in many American places and institutions. Like other globalized economies, Washington's international labor force offers much-needed expertise and flexibility in communicating in different languages. In addition, local residents who are speakers of languages in addition to English are useful for the guidance they provide—both formally and informally—to those with low English skills.

Washington area residents speak more than 100 languages, making the region rich in linguistic assets.<sup>7</sup> More than one-fifth of the region speaks a language other than English at home, while the same is true for nearly 17 percent in the District. Table 1 shows the twenty largest language groups spoken at home in 2000. Spanish is by far the most common among those who speak a language other than English at home. In the District, more than half (54.7 percent) of all residents who speak a language other than English at home speak Spanish, while in the Washington metropolitan area as a whole, the Spanish speakers are a lower share at 42.6 percent.

Following Spanish speakers, three language groups dominate in the region—French, Chinese, and a



grouping of African languages.8 Regionwide, speakers of these three languages have similar standings in terms of rank and absolute numbers, approximately 50,000 persons or 5 percent of all non-English speakers. In the District, their order and magnitude is different: French ranks second, African languages third, and Chinese fourth. The District's second-ranked French speakers comprise 10 percent of all non-English-at-home speakers, and speakers of African languages make up 5.7 percent. Chinese is spoken by 3.2 percent of the District's non-English speaking population.

While these top four language groups account for nearly threequarters of speakers of languages other than English in the District, they account for only 59 percent of the region's total. Continuing down the list in rank order, the languages spoken at home are diverse. For the District, a mix of European, Asian, and Arabic language speakers round out the largest ten languages: German (3.0 percent), Arabic (2.3 percent), Italian (1.9 percent), Vietnamese (1.8 percent), Tagalog (1.5 percent), and Russian (1.2 percent). In greater Washington, the ranking of languages is more connected to Asia and the Middle East, with Korean (5.1 percent), Vietnamese (4.0 percent), Arabic (3.0 percent), Tagalog (3.0 percent), Persian (2.8 percent), and German (2.6 percent) completing the ten largest groups.

The differences in the major languages spoken by those residing in the District versus those in the metropolitan area as a whole reflect the differences in the residential location of immigrant groups.<sup>9</sup>

Many of the language groups, including all of the top four, represent multiple immigrant source countries. Spanish speakers in the region mostly come from Central and South America and Spanish-speaking Caribbean countries. French speakers in the region are primarily from Francophone African countries, France, Haiti, and Canada. Chinese speakers may speak any number of Chinese languages including Mandarin, Cantonese, and Formosan, and may come from Taiwan, Hong Kong, or Vietnam, in addition to China. By definition, speakers of African languages hail from many different countries, but two groups predominate in the Washington region: Amharic speakers (who are from Ethiopia predominantly) and speakers of Kru, Yoruba, and Ibo, most of whom come from Nigeria, but who may also be natives of Ghana or Liberia.

B. In the Washington metropolitan area, the "limited English proficient" (LEP) population increased by nearly 80 percent between 1990 and 2000.

Greater Washington's limited English proficient (LEP) population grew by 78.7 percent in the 1990s, from nearly 230,000 persons to almost 410,000 (Table 2). Growth of this population varies considerably by local jurisdiction. The growth rates were highest in outlying counties, such as Prince William and Loudoun, corresponding to the small base and recent, rapid growth of the immigrant population during that period.<sup>10</sup> Closer-in Fairfax County led the jurisdictions in the gains of limited English proficient residents, more than doubling its population during the

1990s. Alexandria, Montgomery, and Prince George's counties all experienced growth rates on the order of 73 percent, while Arlington County and the District garnered the lowest rates of increase of limited English speakers.

This pattern of change roughly corresponds to the growth and change of the foreign-born population across jurisdictions in the region. However, factors other than the increase in immigrants are fueling the growth and change of the LEP population. For example, some local areas may have high growth of the foreign-born but with relatively large shares of immigrants from countries where English is common, such as India, the Philippines, the United Kingdom, and Jamaica. In addition, immigrants gaining proficiency in English as well as those who move out of the region or their jurisdiction will reduce the overall population that is limited in their ability to speak English.

C. The region's LEP population is concentrated in inner suburban areas both inside and outside the beltway as well as in the central corridor of the District of Columbia.

Not surprisingly, the distribution of the LEP population around the region is highly correlated with that of the foreign-born. Accordingly, the outer suburbs have relatively low concentrations, and the eastern portion of the District and most of Prince George's County stand out for their dearth of LEP population (Figure 1). The inner suburban counties of Fairfax, Arlington, Alexandria, and Montgomery, by contrast, have much higher LEP proportions as compared with the metropolitan area as a whole (Table 2). Within these

counties, census tracts with more than one-third of their population with limited English ability appear in high-immigrant areas: Bailey's Crossroads, Seven Corners, Annandale, and Springfield in Virginia, and Silver Spring, Takoma Park, and Wheaton in Maryland. In the District, Chinatown and Mount Pleasant stand out for their high concentrations.

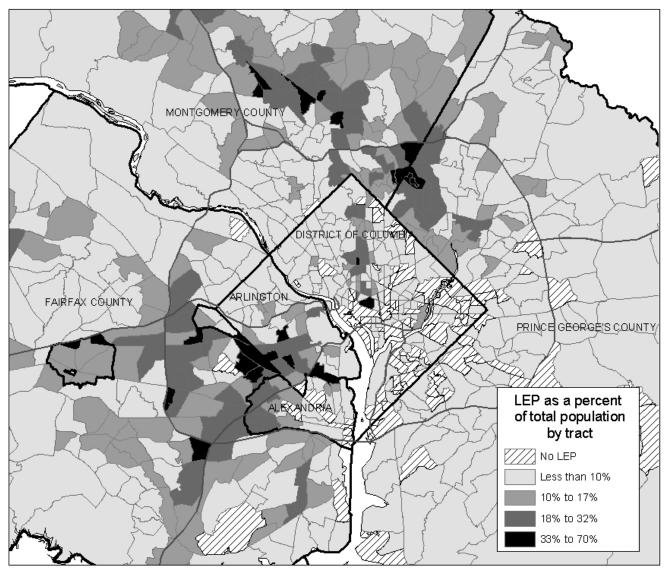
Fairfax and Montgomery counties have by far the largest absolute

number of residents with limited English speaking skills, 123,000 and 105,000 respectively, comprising approximately 13 percent of the total population in both counties. Prince George's 54,000 LEP residents and the District's 38,000 speakers with limited English skills make up about 7 percent of their total respective populations. While Arlington's 30,000 LEP population is smaller than these, it represents almost 17 percent of the

county's total population, the highest proportion in the region.

D. More than half of the Washington metropolitan area's limited English proficient population is Spanish-speaking, while fully two-thirds of the District of Columbia's LEP population is Spanish-speaking.

Figure 1. Limited English Proficiency in the Washington Metropolitan Area, 2000



Source: U.S. Census Bureau, 2000

Figure 2 shows the limited English proficient population grouped into four major language categories (as categorized by Census summary file data): Spanish, "other Indo-European languages," "Asian and Pacific Island languages," and "other languages." These language categories, while providing a broad understanding of language differences, offer limited information because of the range of countries and languages they include within each category.<sup>11</sup>

Nonetheless, reviewing the broad language categories reveals that among the limited English proficient population, fully one-half in the region and two-thirds in the District speak Spanish at home. By contrast, the region's share of the LEP population that speaks Asian languages is 25.4 percent and the District's share that speaks Asian languages is only 11.8 percent. The metropolitan area and the District have similar shares in the two remaining broad categories, Indo-European (16.5 percent for the region and 15.2 percent for the District) and "other" languages (both are around 6 percent).

Thus we turn to the more specific language data available through the Census microdata to examine limited English proficiency. Figure 3b shows the English proficiency for the ten largest LEP language groups in the District of Columbia. Spanish speakers, numbering nearly 50,000, are almost equally split between limited English speakers and non-limited English speakers. The second largest group, French speakers—who in the case of the District are largely from Haiti and the French-speaking countries of Africa—are just over one-quarter limited English proficient. Among the remaining groups shown, Chinese and Vietnamese speakers stand out for their extraordinarily high proportions who are not English proficient.

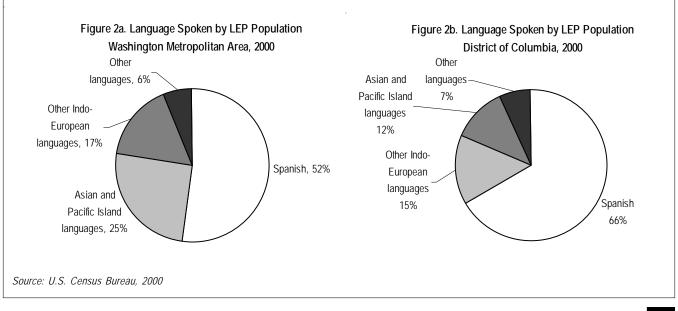
Although also led by Spanish speakers, the Washington metropolitan area has a fairly different list of the ten largest LEP groups (See Figure 3a). Like those in the District, the Spanish speakers in the region are split down the middle with regard to proficiency. In contrast to the District, however, a different order of languages

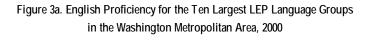
follow: Korean (61 percent LEP), Vietnamese (64 percent LEP), and Chinese (50 percent LEP).

E. In the Washington region, 43 percent of the foreign-born population is limited English proficient, compared to less than 2 percent of the U.S.-born population.

We would anticipate immigrants as a whole to have higher rates of limited English ability than those born in the United States, given that many newcomers come from countries with official languages other than English. Indeed, among the region's foreign-born, 43 percent are limited English proficient, while less than 2 percent of the native-born population are classified as LEP.

However, about 15 percent of the metropolitan Washington's limited English proficient population was born in the United States, and this number is even higher in the District, where 21 percent or one-in-four of the limited English speakers are native born (see Figure 4). While the District is the





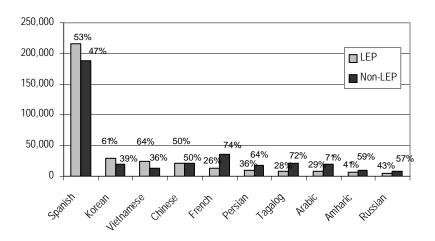
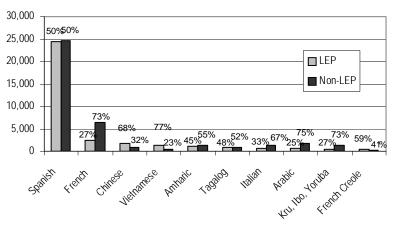


Figure 3b. English Proficiency for the Ten Largest LEP Language Groups, District of Columbia, 2000



Source: U.S. Census Bureau, 2000

local jurisdiction with the highest percentage of limited English persons who are native-born, it also has one of the highest proportions of foreign-born who speak only English (23 percent). This is nearly twice the percentage found in Arlington, Alexandria and Fairfax where about 12 percent of immigrants speak English only.

Prince George's County follows trends similar to those in the District on these measures, and

Prince William County also is characterized by a relatively large share of limited English proficient residents who are U.S.-born. (Note that the differences in absolute size of the language groups are designated by the scale shown on the horizontal axis and the percentages shown reflect the percentage within each jurisdiction that is native- or foreign-born LEP.)

The patterns of English ability by nativity status may be explained by

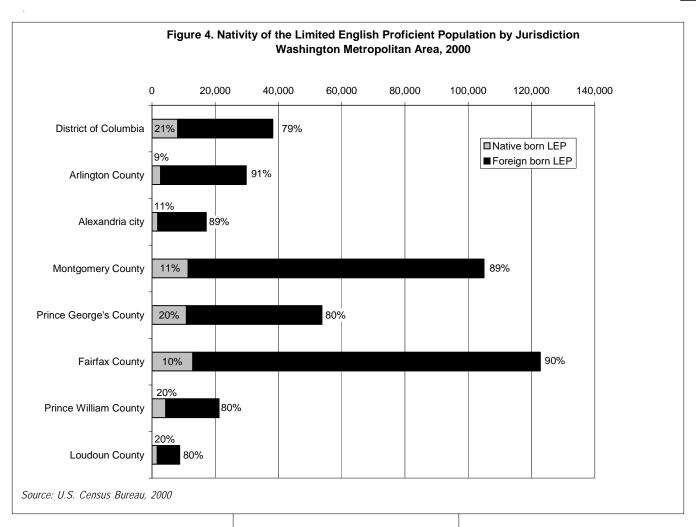
the fact that children of immigrants, regardless of whether they are U.S.-born or foreign-born, face similar constraints to learning English. These include parents with little English language ability, lack of enrollment in pre-school, and heavy reliance on their own language within the household by family members.

Figure 5 shows that all of the four major language categories have similar shares of their limited proficient population in the working ages of 18 to 64, approximately 80 percent, except for the "other Indo-European" group which has only 73 percent. The language groups vary more on either end of the age spectrum. Spanish and "other" speakers have larger shares of their LEP population who are children between the ages of 5 and 17, and a smaller proportion of elderly LEP population who are over 65 years of age. Speakers of Asian languages have nearly equal shares of children and elderly, about 10 percent each, while "other Indo-European" language speakers have a higher proportion of elderly persons than children who are less proficient in English.

#### Conclusion

Policymakers face a number of challenges in serving the limited English proficient population. Without proficiency in English, many immigrant newcomers will remain isolated from opportunities, institutions, and services outside of their own networks.

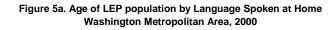
Lack of English language ability is generally considered to be a problem of the first generation of immigrants. Research shows that by the second generation most children of immigrants are profi-



cient in English, and in fact, most lose their parent's language altogether. <sup>12</sup> However, many children of immigrants— due to the disadvantages described above— are still vulnerable to the barriers that limit their successful integration and subsequent mobility. Moreover, the continuity of immigration ensures that new waves of immigrants will continue to be limited English proficient and will need help making their way in American institutions.

The District of Columbia's new Language Access Act and similar measures around the region attest to the commitment of local governments to serve the limited English proficient population. In addition to providing translation services, jurisdictions should encourage English language learning by promoting English education classes. These policies and programs also send the important message that government is willing to reach out to immigrants to help them have access to vital services and programs.

The implementation of this law and the capacity to serve the limited English population will test resources—both fiscal and human—as agencies strive to comply.



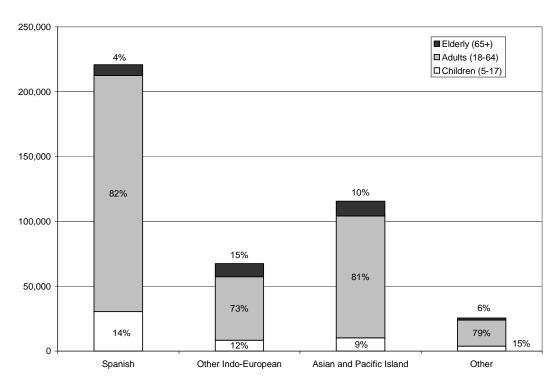


Figure 5b. Age of LEP population by Language Spoken at Home District of Columbia, 2000

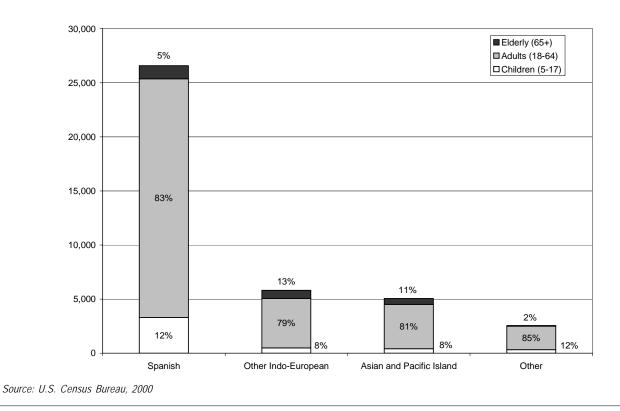




Table 1. Language Spoken at Home, Washington Metropolitan Area, 2000

Washingto	n, DC		Washington Metropolitan Area			
Language	Number of	Percent of	Language	Number of	Percent of	
	Speakers	Non-English		Speakers	Non-English	
		at-Home			at-Home	
		Speakers			Speakers	
English Only	449,241	N/A	English only	3,627,264	N/A	
Spanish or Spanish Creole	49,461	54.7	Spanish or Spanish Creole	406,244	42.6	
French, incl. Patois, Cajun	9,085	10.0	Chinese	52,799	5.5	
African languages	5,181	5.7	African languages	51,435	5.4	
Chinese	2,913	3.2	French, incl. Patois, Cajun	50,130	5.3	
German	2,695	3.0	Korean	48,741	5.1	
Arabic	2,097	2.3	Vietnamese	37,732	4.0	
Italian	1,723	1.9	Arabic	28,968	3.0	
Vietnamese	1,610	1.8	Tagalog	28,826	3.0	
Tagalog	1,356	1.5	Persian	27,019	2.8	
Russian	1,110	1.2	German	25,240	2.6	
Portuguese or Portuguese Creole	1,013	1.1	Other Indic Languages	19,725	2.1	
Other Indo-European Languages	968	1.1	Urdu	18,889	2.0	
Japanese	926	1.0	Other Asian languages	18,744	2.0	
Other Slavic Languages	896	1.0	Hindi	17,365	1.8	
Greek	791	0.9	Russian	13,048	1.4	
Serbo-Croatian	781	0.9	Italian	11,052	1.2	
Other Asian languages	727	8.0	Portuguese or Portuguese Creole	10,647	1.1	
Korean	709	0.8	Japanese	9,271	1.0	
Scandinavian Languages	637	0.7	Greek	8,614	0.9	
Urdu	605	0.7	Other Indo-European Languages	8,323	0.9	
All Other Languages	5,133	5.7	All Other Languages	61,399	6.4	
Total Non-English Languages	90,417	100	Total Non-English Languages	954,211	100.0	

Source: US Census Bureau, 2000

Table 2. Limited English Proficient Population, Washington Metropolitan Area, 1990-2000

	1	990		2000	
	Limited		Limited		
	English	Percent	English	Percent	Percent
	Proficient	of Total	Proficient	of Total	Change
	Population	Population	Population	Population	1990-2000
District of Columbia	29,128	5.1	38,236	7.1	31.3
Arlington County, Virginia	20,512	12.7	29,793	16.6	45.2
Alexandria city, Virginia	9,898	9.4	17,163	14.3	73.4
Montgomery County, Maryland	60,308	8.6	105,001	12.9	74.1
Prince George's County, Maryland	31,091	4.6	53,743	7.2	72.9
Fairfax County, Virginia	59,875	7.9	122,821	13.2	105.1
Prince William County, Virginia	6,103	3.1	21,197	7.1	247.3
Loudoun County, Virginia	2,053	2.6	8,772	5.7	327.3
Rest of metro area	10,348	1.5	13,123	1.6	26.8
Total Washington PMSA	229,316	5.9	409,849	8.9	78.7

Source: US Census Bureau, 1990 and 2000

# Appendix. Language Classifications for Census 2000

Four-group classification Thirty-nine group classification Examples

Spanish Spanish and Spanish creoles Spanish, Ladino

Other Indo-European languages French French, Cajun, Patois French Creole French Creole

French Creole Italian

Portuguese and Portuguese creole

German Yiddish

Other West Germanic languages

Scandinavian languages

Greek Russian Gujarati Hindi Urdu

Other Indic languages

Other Indo-European languages

Dutch, Pennsylvania Dutch, Afrikaans Danish, Norwegian, Swedish

Bengali, Marathis, Punjabi, Romany Albanian, Gaelic, Lithuanina, Rumanian

Asian and Pacific Island languages Chinese Cantonese, Formosan, Mandarin

Japanese Korean

Mon-Khmer, Cambodian

Miao, Hmong Thai Laotian Vietnamese

Other Asian languages Dravidian languages (Malayalam, Telugu, Tamil),

Turkish

Tagalog

Other Pacific Island languages Chamorro, Hawaiian, Ilocano, Indoniesian, Samoan

Other languages Navajo

Other Native North American languages Apache, Cherokee, Choctaw, Dakota, Kere, Pima,

Yupik

Hungarian Arabic Hebrew

African languages Amharic, Ibo, Twi, Yoruba, Bantu, Swahili, Somali

#### **Endnotes**

- <sup>1</sup> Audrey Singer is a visiting fellow and Jill H. Wilson is a research analyst in the Center for Urban and Metropolitan Policy at the Brookings Institution.
- <sup>2</sup> Audrey Singer, "At Home in the Nation's Capital: Immigrant Trends in Metropolitan Washington." (Washington: Brookings Institution, 2003).
- <sup>3</sup> A recent debate over immigrants' English-speaking ability ignited by comments made by Maryland Governor Robert Ehrlich in defense of Comptroller William Donald Schaefer's criticisms of the English-speaking ability of a McDonald's employee underscores the sensitivity of the topic locally.
- <sup>4</sup> The Language Access Act (LAA) requires all D.C. agencies to provide oral language services for individuals likely to use their services and to provide written translation of documents for "any population that constitutes the lesser of 3 percent or 500 individuals, and/or are likely to be served by that agency." (See DC Law B15-01390.)
- <sup>5</sup> In addition to English, the 2000 Census questionnaire was available in Spanish, Chinese, Tagalog, Vietnamese and Korean. Language assistance guides were available in 49 languages.
- <sup>6</sup> See Appendix for language classification lists.
- <sup>7</sup> While more than 100 languages are spoken by residents of the Washington metropolitan area, it is not possible to derive a precise count or description due to the way the Census Bureau codes

languages. However, we know from school district data that area residents speak many more languages than are recorded here. For example, Montgomery County Public Schools counts 122 different home languages spoken by its student population, and the District of Columbia tallies 113.

- <sup>8</sup> "African languages" is one of the thirty-nine group classifications created by the Census Bureau. See the Appendix for a list of languages included in this group.
- <sup>9</sup> Singer, 2003.
- 10 Ibid.
- <sup>11</sup> Most speakers of Spanish in Washington are from a myriad of countries in the Western hemisphere. The region's largest Spanish-speaking immigrant groups hail from El Salvador, Mexico, Peru, Guatemala and Bolivia.

Other Indo-European languages encompass an even broader geography, hampering our ability to make assumptions about source countries. This category includes the languages of most of Europe (the Germanic, Scandinavian, Slavic, Romance, Celtic, Baltic languages and Greek), but also the Indic languages of India (Hindi, Gujarathi, Punjabi, and Urdu) and Iranian languages.

Asian and Pacific Island languages include a range of countries found all over Asia: Chinese, Korean, Japanese, Vietnamese, Hmong, Tagalog, Dravidian languages of India, and other Pacific languages.

All other languages include all the languages of Africa, but also Semitic languages such as Arabic

and Hebrew, and many indigenous languages of the Americas.

See Hyon B. Shin and Rosalind Bruno, "Language Use and English-speaking Ability: 2000." (Washington: U.S. Census Bureau).

<sup>12</sup> Alejandro Portes and Ruben G. Rumbaut, *Legacies: The Story of the Immigrant Second Generation* (Berkeley and New York: University of California Press and the Russell Sage Foundation, 2001).

#### References

Portes, Alejandro and Ruben G. Rumbaut. 2001. *Legacies: The Story of the Immigrant Second Generation*. Berkeley and New York: University of California Press and the Russell Sage Foundation.

Shin, Hyon B. and Rosalind Bruno. 2003. "Language Use and English-speaking Ability: 2000." Washington: U.S. Census Bureau.

Singer, Audrey. 2003. "At Home in the Nation's Capital: Immigrant Trends in Metropolitan Washington." Washington, D.C.: Brookings Institution.

## Acknowledgments

The authors would like to thank Matthew Brault for research assistance, and the support provided by the staff of the Brookings Center on Urban and Metropolitan Policy and the Greater Washington Research Program.

#### For more information:

Audrey Singer Visiting Fellow

Brookings Institution Center on Urban and Metropolitan Policy

Phone: (202) 797-6241 asinger@brookings.edu

Jill H. Wilson Research Analyst

Brookings Institution Center on Urban and Metropolitan Policy

Phone: (202) 797-6158 **jwilson@brookings.edu** 

# For general information:

202-797-6139

www.brookings.edu/urban



# THE BROOKINGS INSTITUTION

1775 Massachusetts Avenue, NW • Washington, DC 20036-2103 Tel: 202-797-6000 • Fax: 202-797-6004 www.brookings.edu

