

## **APPENDIX D: BART LEP Assessment Findings**

The Factor 1 analysis assessed the number and proportion of persons with limited English-speaking proficiency likely to be encountered within BART's four-county service area. The LEP population is those persons who reported to the Census Bureau that they speak English "less than very well."

The four-county BART service area, shown in Figure 1, includes Alameda, Contra Costa, San Francisco, and San Mateo Counties. Within this area, the most recent census data from the American Community Survey (ACS) estimate that 689,499, or 18.6 percent, of the population age 5 years and older is LEP. The ACS data show 22 languages with 1,000 or more LEP persons.

### **Evaluation Methods and Data Sources**

Service providers should consider languages spoken by the populations within their service areas to determine whether language barriers exist. In accordance with the FTA's policy guidance, the initial step for providing meaningful access to services for LEP persons and maintaining an effective LEP program is to identify LEP populations in the service area and their language characteristics through an analysis of available data. Determining the presence of LEP populations in the BART service area was completed through an analysis of several data sources, including:

- U.S. Census Bureau, Census 2000
- U.S. Census Bureau, 2006 to 2008 ACS 3-Year Sample, Public Use Microdata Sample (PUMS)
- California Department of Education (CDE), English Learner Data

#### ***Census 2000***

Census 2000 provides the most geographically detailed information about English language proficiency within the four-county BART service area. The census provides information on languages spoken at home and the English proficiency of nonnative persons. These data are available at the census block group and census tract level. There are 820 census tracts in the service area. The San Francisco Airport census tract has no population, which results in 819 tracts with population. FTA identifies Census 2000 as a primary data source for identifying LEP populations. Data from Census 2010 will become available beginning in 2011.

#### ***U.S. Department of Labor***

The U.S. Census Bureau prepared a special tabulation for the U.S. Department of Labor (DOL) One Stop Career Centers to identify languages spoken in states and in Local Workforce Investment Areas (LWIAs). FTA suggests that recipients consider this dataset as a supplement to the census data in efforts to identify locations of LEP populations because the LWIAs likely match or overlap with a transit provider's service area. The tabulation is based on LWIA geography that generally corresponds to county and city boundaries. This special DOL tabulation includes all of the BART service area except for the city of Richmond. Because of confidentiality concerns, the U.S. Census Bureau could not tabulate Richmond separately.

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### ***American Community Survey***

The ACS is a continuous nationwide survey of addresses conducted monthly by the U.S. Census Bureau. It is intended to measure changing socioeconomic characteristics and conditions of the population on a recurring basis. It is important to note that the ACS does not provide official counts of the population between each decennial census, but instead provides weighted population estimates. While the ACS data currently available are considered a reliable source of information, data are not yet available at the census tract level.

This report follows the FTA Handbook to use the ACS data to provide a secondary estimate of the number and distribution of LEP persons. The PUMS is a U.S. Census Bureau product available from the 2006 to 2008 ACS 3-Year Sample. There are 110,440 records available for the four-county BART service area. The geographies that correspond to these sample data are the Public Use Microdata Areas (PUMAs). There are 31 PUMAs in the BART service area. The PUMS data are used to prepare maps showing the distribution of LEP populations.

### ***California Department of Education English Learner Data***

FTA also recommends using public school enrollment data from the CDE to identify LEP populations and the types of languages spoken in the BART service area.

The CDE data provide information on the language spoken at home by students who are classified as English learners. English learners receive special services from the school districts to improve language proficiency and meet education requirements. This category includes both primary and secondary school students ranging from kindergarten to high school. While this dataset will not identify the number of people above the school age range that speak a language other than English, it can be helpful in determining concentrations of the population speaking a similar language. There are 64 primary, secondary, and unified school districts within the BART service area.

## **LEP Population Identification**

### ***Census 2000***

FTA describes LEP persons as having a limited ability to read, write, speak, or understand English. For this LEP analysis, those who reported to the U.S. Census Bureau that they speak English less than very well were used to tabulate the LEP population for the BART service area.

Table 1 shows English proficiency by county for the BART service area. The table shows that 17.8 percent of the population age 5 years and older reported speaking English less than very well. This is the overall LEP population.

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Table 1 Census 2000 English Proficiency, by County

County or Area	Total Population Age 5 and Over	Speaks English Only	Speaks English		Percentage Less than Very Well
			Very Well	Less than Very Well	
Alameda	1,346,666	850,906	257,896	237,864	17.7
Contra Costa	883,762	654,278	128,289	101,195	11.5
San Francisco	745,650	404,571	154,678	186,401	25.0
San Mateo	662,509	387,594	152,491	122,424	18.5
<b>Service Area</b>	<b>3,638,587</b>	<b>2,297,349</b>	<b>693,354</b>	<b>647,844</b>	<b>17.8%</b>

Source: U.S. Census Bureau, Summary File 3 (SF 3), 2000, Table P19.

The Census 2000 data, based on a sample of the population, include the number of persons ages 5 and above who self-identified their ability to speak English as “very well,” “well,” “not well,” and “not at all.” Table 2 displays the data on English language proficiency for the four-county BART service area by the linguistic categories identified by the U.S. Census Bureau, which include Spanish, Indo-European, Asian or Pacific Islander, and All Other Languages.

The data displayed in Table 2 are for the four-county BART service area population ages 5 years and above. When considered exclusively for persons 18 years and above, the data suggest that approximately 15.5 percent of the adult population residing in the BART service area (approximately 565,268 persons in total) spoke English “well,” “not well,” or “not at all” in 2000.

Additionally, the Census 2000 data provide information on linguistically isolated households. “A linguistically isolated household is one in which no member 14 years old and over (1) speaks only English and (2) speaks a non-English language and speaks English ‘very well.’ In other words, all members 14 years old and over have at least some difficulty with English” (Census 2000). In total, the Census 2000 Summary File 3 data identified 1,452,278 households in the four-county BART service area. The entire membership of a linguistically isolated household would be considered LEP. Table 3 details those data for linguistically and non-linguistically isolated households.

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Table 2 Service Area English Proficiency, by Language Category

English Proficiency	Spanish		Indo-European		Asian or Pacific Islander		All Other Languages	
	Population	Percentage of Total Population	Population	Percentage of Total Population	Population	Percentage of Total Population	Population	Percentage of Total Population
Speak English "Very Well"	246,854	47.7	151,778	68.6	270,666	47.6	24,056	71.7
<b>Limited English Proficient</b>								
Speak English "Well"	122,419	23.6	43,623	19.7	160,058	28.2	6,908	20.6
Speak English "Not Well"	103,114	19.9	20,604	9.3	104,107	18.3	2,152	6.4
Speak English "Not At All"	45,596	8.8	5,241	2.4	33,617	5.9	445	1.3
LEP Subtotal	271,129	52.3	69,468	31.4	297,782	52.4	9,505	28.3
<b>Grand Total</b>	<b>517,983</b>	<b>100.0%</b>	<b>221,246</b>	<b>100.0%</b>	<b>568,448</b>	<b>100.0%</b>	<b>33,561</b>	<b>100.0%</b>

Note: Data are for population age 5 years and older. Source: U.S. Census Bureau, Summary File 3 (SF 3), 2000, Table P19.

Table 3 Linguistically Isolated Households, by Language Category

Category	Spanish		Indo-European		Asian or Pacific Islander		All Other Languages	
	Households	Percentage of Total Households	Households	Percentage of Total Households	Households	Percentage of Total Households	Households	Percentage of Total Households
Linguistically Isolated	41,929	2.9	18,287	1.3	64,999	4.5	2,125	0.1
Not Linguistically Isolated	137,673	9.5	96,513	6.6	146,153	10.0	14,435	1.0
<b>Total</b>	<b>179,602</b>	<b>12.4%</b>	<b>114,800</b>	<b>7.9%</b>	<b>211,152</b>	<b>14.5%</b>	<b>16,560</b>	<b>1.1%</b>

Source: U.S. Census Bureau, Summary File 3 (SF 3), 2000, Table P20.

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Table 4 shows the top five non-English languages spoken in the BART service area in 2000 among the total population ages 5 years and older (includes both LEP and non-LEP populations). Although respondents to the 2000 Census identified a variety of languages spoken within the BART service area, Spanish, Chinese, Tagalog, Vietnamese, and Russian were the primary languages spoken.

Table 4 Primary Languages Spoken in the BART Service Area, Census 2000

Language	Population Speaking Non-English Languages	Percentage of Total Population
Spanish	517,983	14.24
Chinese	282,398	7.76
Tagalog	141,341	3.88
Vietnamese	37,785	1.04
Russian	28,993	0.80
All Other Languages	332,738	9.14
<b>Total Speaking Non-English Languages</b>	<b>1,341,238</b>	<b>36.86%</b>

Source: U.S. Census Bureau, Summary File 3 (SF 3), 2000, Table PCT.10.

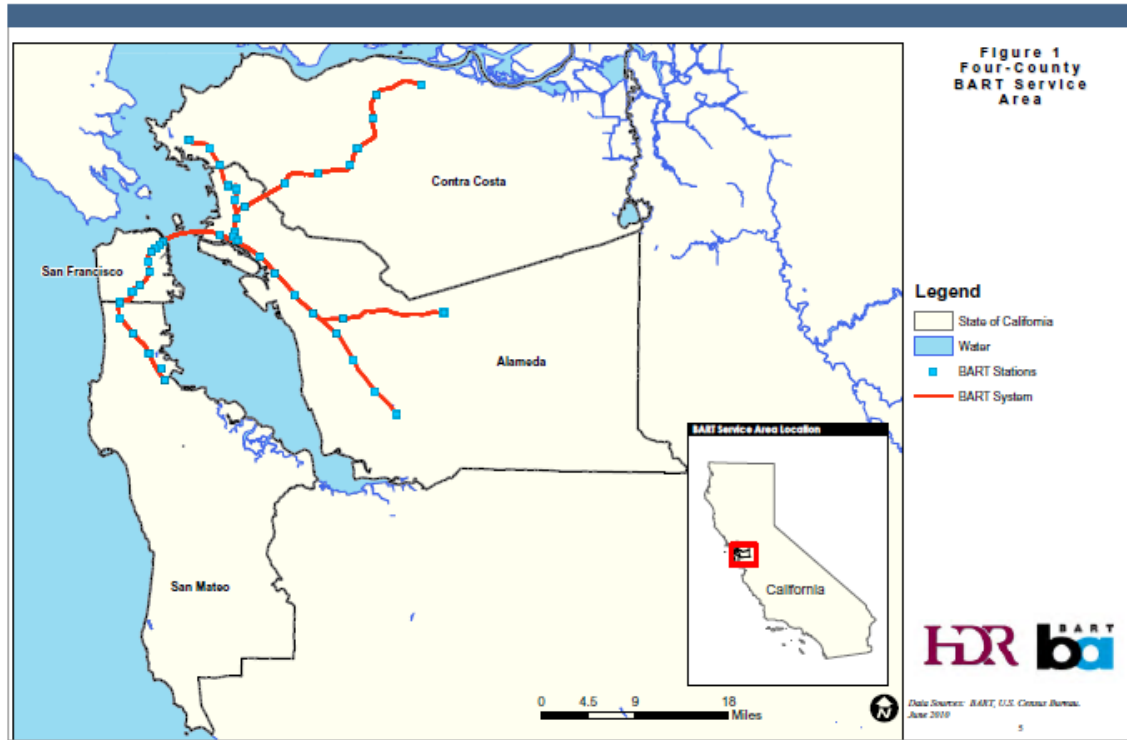
Figure 1 identifies the LEP census tracts using Census 2000 Summary File 3 data. This map shows the census tracts where the proportion of the population speaking English less than very well is greater than or equal to 17.8 percent, the service area mean.

More than 52 percent of the Spanish language speaking population is LEP in the four-county BART service area. 0 shows the census tracts where the proportion of the LEP Spanish speaking population is greater than or equal to the service area mean

The study team did not prepare maps showing the “Indo-European” and “Asian or Pacific Islander” categories. Because of the large number of languages grouped within these broad categories, showing the geographic distribution of language categories would be inconclusive about where concentrations of specific languages are located. The map set prepared from the 2006 to 2008 ACS 3-Year PUMS shows the geographic distribution of LEP persons for the primary languages by PUMA.

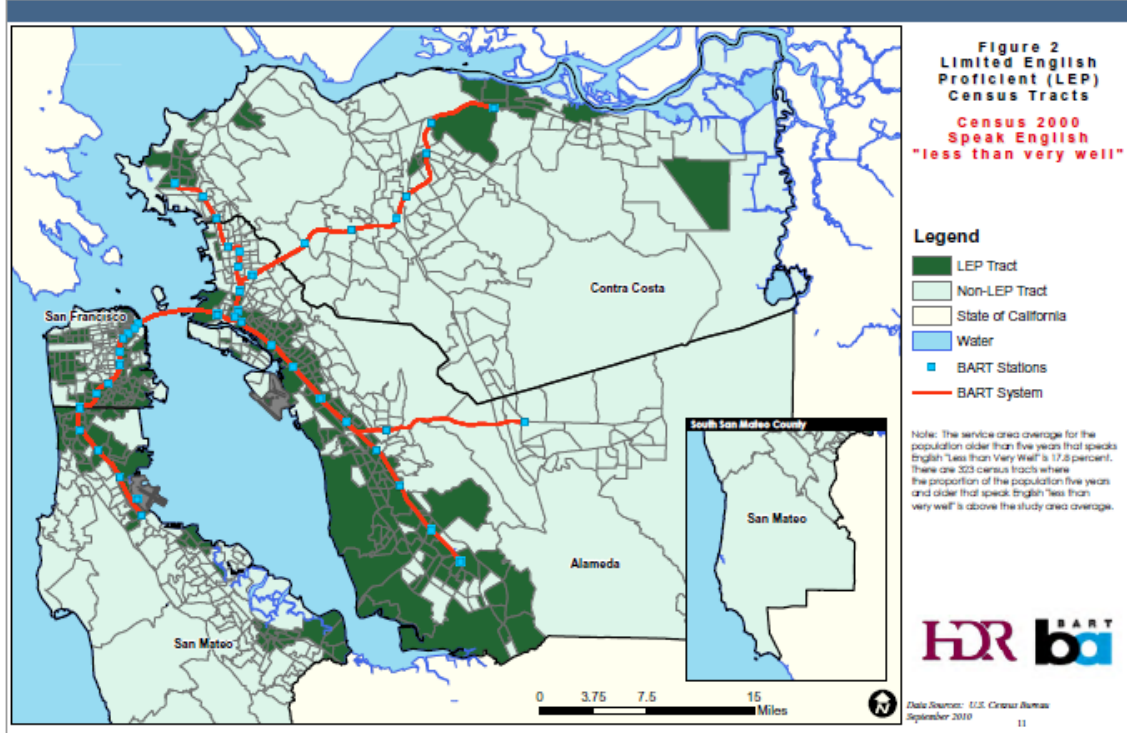
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Figure 1 Limited English Proficient Census Tracts



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## Spanish Limited English Proficient Census Tracts



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Table 5 was prepared using the LEP tabulation prepared for DOL. It shows the Census 2000 breakdown for the languages with more than 1,000 estimated LEP persons. Laotian is included because public outreach activities conducted by BART have identified a significant Laotian population that may be undercounted by both Census 2000 and the more recent 2006 to 2008 ACS 3-Year Sample. Overall, the DOL tabulation identified 29 distinct languages and 10 linguistic categories in the BART service area. These data for DOL were prepared using LWIA geography. They were not summarized at the census tract level. Total population age 5 and older in the DOL tabulation is 3,546,520. This total excludes the city of Richmond for confidentiality reasons.

### Discussion

The Census 2000 data, together with the special DOL tabulation, provide a detailed picture of the LEP population for the BART service area. It shows the top languages spoken by the LEP populations and the census tracts with higher-than-average concentrations of people who reported that they spoke English less than very well. Geographic analysis shows that 46 percent of the LEP population lives in a census tract within 1 mile of a BART line.

It shows the Spanish speaking LEP population clustered primarily near the BART system. More than 40 percent of Spanish speaking LEP persons live in a census tract within 1 mile of a BART line. This LEP population concentrated along the system shows that for the Spanish LEP population, public transit is available as a key means of achieving mobility.

While the Census 2000 data is the most geographically detailed dataset, it does not reflect changes in the population over the past decade. It also does not provide enough detail to see the regional distribution of specific languages at the census tract level.



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Table 5 Department of Labor Special Tabulation of LEP for Languages Spoken in Alameda, Contra Costa, San Francisco, and San Mateo Counties

Language	County				Total	Percentage of Total Population
	Alameda	Contra Costa <sup>a</sup>	San Francisco	San Mateo		
Spanish	102,395	46,455	44,780	65,290	258,920	7.30
Chinese (Cantonese and Mandarin)	55,160	8,110	90,920	18,010	172,200	4.86
Tagalog	16,300	7,315	12,205	13,950	49,770	1.40
Vietnamese	13,620	2,530	6,210	1,235	23,595	0.67
Russian	2,275	1,405	10,500	2,365	16,545	0.47
Korean	6,855	1,765	3,245	1,750	13,615	0.38
Japanese	2,780	1,440	3,650	3,000	10,870	0.31
Persian	5,130	2,720	389	1,010	9,249	0.26
Portuguese	2,809	930	535	1,165	5,439	0.15
Hindi	2,925	695	265	1,435	5,320	0.15
Arabic	1,340	545	1,480	1,720	5,085	0.14
Italian	829	655	1,355	1,650	4,489	0.13
French	1,169	740	1,670	885	4,464	0.13
German	1,200	625	665	950	3,440	0.10
Mon-Khmer, Cambodian	2,259	250	430	110	3,049	<0.10
Thai	745	230	905	350	2,230	<0.10
Laotian	885	740	330	100	2,055	<0.10
Other	19,152	6,174	6,857	7,432	39,615	1.12
<b>Total</b>	<b>237,828</b>	<b>83,324</b>	<b>186,391</b>	<b>122,407</b>	<b>629,950</b>	<b>17.76%</b>

Source: U.S. Department of Labor, Special Tabulation of Census 2000 data.

<sup>a</sup> Data do not include the city of Richmond because of confidentiality concerns.

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### *2006 to 2008 American Community Survey*

One of the U.S. Census Bureau products from the 2006 to 2008 ACS is the PUMS data. There are 110,440 records available for the four-county BART service area. The geographies that correspond to this sample data are the PUMAs. PUMAs are special non-overlapping areas that partition a state, and each PUMA contains a population of about 100,000. There are 31 PUMAs in the BART service area. These data are used to provide a secondary estimate of the number and distribution of LEP persons.

For this Factor 1 LEP analysis, these data were used to identify the geographic distribution of the languages spoken at home.

FTA describes limited English proficiency as having a limited ability to read, write, speak, or understand English. Similar to the approach used with the Census 2000 data, the study team defined the LEP population as the members of the population age 5 years and older who reported to the ACS that they speak English less than very well.

USDOT "safe harbor" guidance (USDOT 2005) says that BART should provide "written translation of vital documents for each eligible LEP language group that constitutes 5 percent or 1,000, whichever is less, of the population of persons eligible to be served or likely to be affected or encountered." The total population age 5 years and older estimated by the 2006 to 2008 ACS for the four-county BART service area is 3,716,645. The LEP population was estimated at 689,499, or 18.6 percent of the eligible population. Table 6 shows 22 languages with more than 1,000 estimated LEP persons. Overall, the PUMS data reported 88 different languages spoken in the service area.

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Table 6 ACS Languages Spoken by LEP Persons Age 5 and Older

Language Spoken at Home	LEP Population Estimate	Percentage of Total Population
Spanish	295,763	7.96
Chinese (Cantonese, Mandarin)	185,070	4.98
Tagalog	47,047	1.27
Vietnamese	27,229	0.73
Russian	17,083	0.46
Korean	16,834	0.45
Japanese	9,857	0.27
Persian	9,691	0.26
Hindi	7,776	0.21
Arabic	6,909	0.19
Portuguese	5,094	0.14
French	3,907	0.11
Italian	3,688	0.10
Thai	3,162	<0.10
Mon-Khmer, Cambodian	2,720	<0.10
German	2,131	<0.10
Urdu	2,004	<0.10
Laotian	1,767	<0.10
Serbo-Croatian	1,632	<0.10
Guajarati	1,481	<0.10
Greek	1,348	<0.10
Polish	1,305	<0.10
Other Languages	36,001	0.97
<b>Total</b>	<b>689,499</b>	<b>18.6%</b>

Source: U.S. Census Bureau, 2006 to 2008 American Survey Community.

Table 7 shows the geographic distribution of the LEP population by county within the BART service area for the top six languages spoken at home. Appendix A provides a more detailed geographic distribution for all languages shown in Table 6.

Figure 2 identifies the BART service area PUMAs. 0 shows the PUMAs within the BART service area with the highest concentrations of LEP populations. These areas were determined by comparing the proportion of the LEP population in each PUMA with the average LEP population in the service area. The average LEP population is 18.6 percent, so any PUMA with at least 18.6 percent LEP population was identified as an LEP area.

Figures 6 to 11 identify the LEP population distribution for the top six languages spoken at home. These figures show the distribution by PUMA. Appendix A shows the LEP population by PUMA for the languages presented in Table 6.

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### Discussion

A comparison of the Census 2000 data with the 2006 to 2008 ACS data shows that both sources identify the same top six languages spoken by LEP persons in the BART service area:

- Spanish
- Chinese (Cantonese and Mandarin)
- Vietnamese
- Tagalog
- Russian
- Korean

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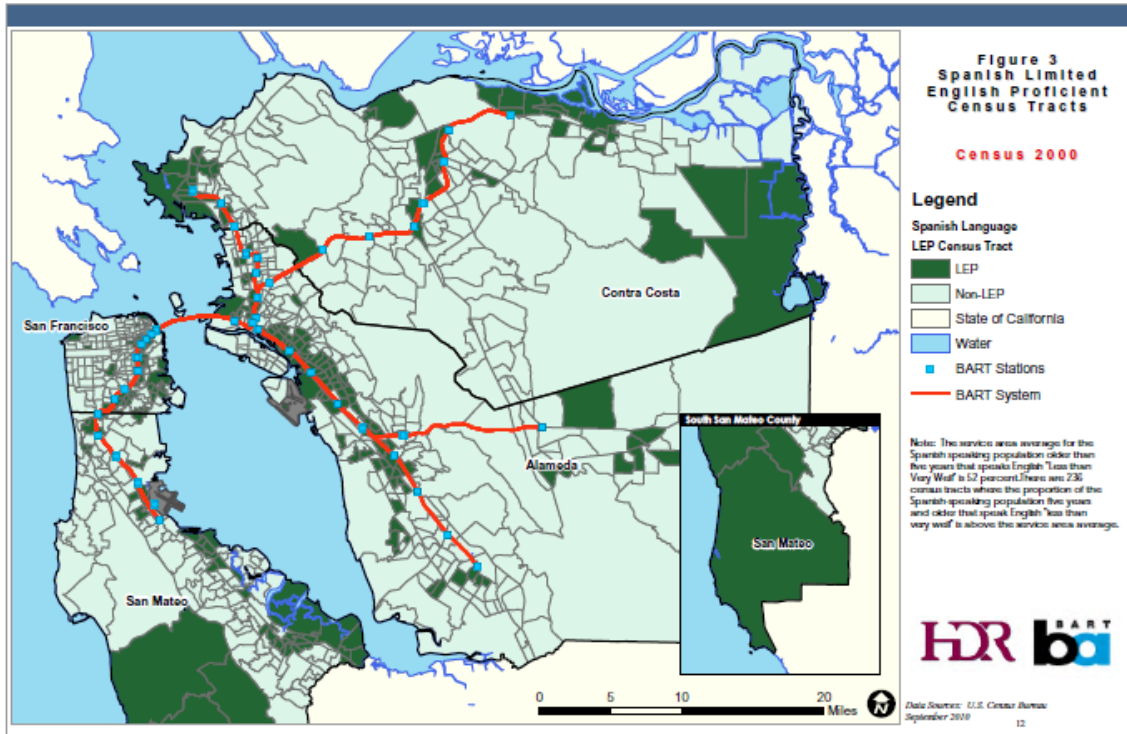
Table 7 ACS LEP Population, by County

County or Area	Spanish	Chinese	Viet- namese	Tagalog	Russian	Korean	Other Languages	LEP Population	Total Population Age 5 and Over
Alameda	114,426 8.5%	60,488 4.5%	15,457 1.1%	15,509 1.1%	2,230 0.2%	7,947 0.6%	41,753 3.1%	257,810 19.0%	1,354,609 100.0%
Contra Costa	80,833 8.5%	10,956 1.2%	2,914 0.3%	6,297 0.7%	2,683 0.3%	3,165 0.3%	21,496 2.3%	128,344 13.5%	950,488 100.0%
San Mateo	58,521 8.9%	20,098 3.1%	1,550 2.4%	14,585 2.2%	2,241 0.3%	2,442 0.4%	19,490 3.0%	118,009 18.0%	655,128 100.0%
San Francisco	41,983 5.6%	93,528 12.4%	7,308 1.0%	10,656 1.4%	9,929 1.3%	3,280 0.4%	17,734 2.3%	185,336 24.5%	756,420 100.0%
BART Service Area	295,763 8.0%	185,070 5.0%	27,229 0.7%	47,047 1.3%	17,083 0.5%	16,834 0.5%	100,473 2.7%	689,499 18.6%	3,716,645 100.0%

Source: U.S. Census Bureau, 2006 to 2008 American Survey Community.

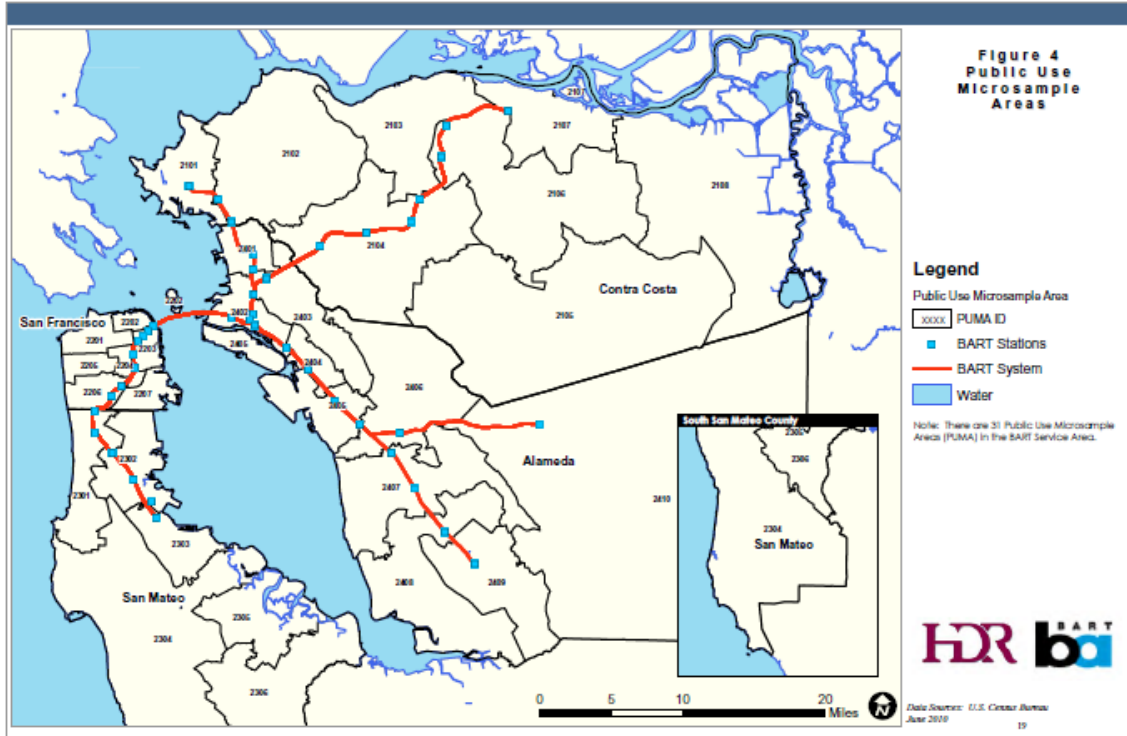
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Figure 2 Public Use Microdata Areas



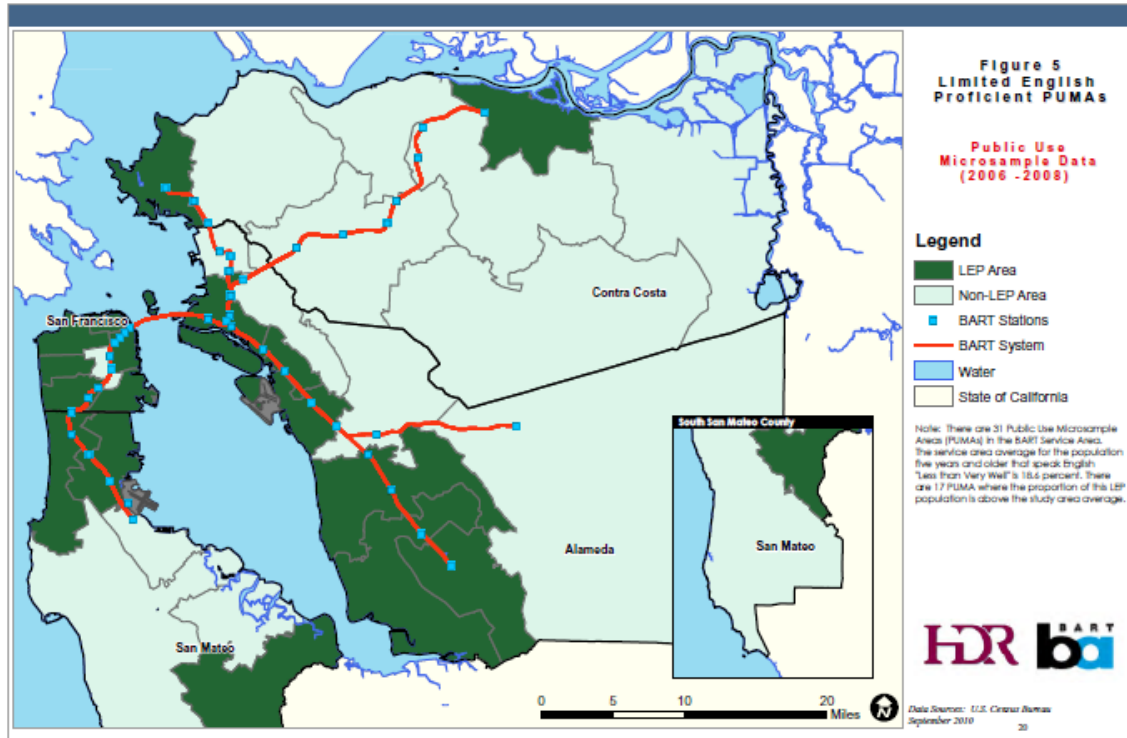
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## Limited English Proficient PUMAs



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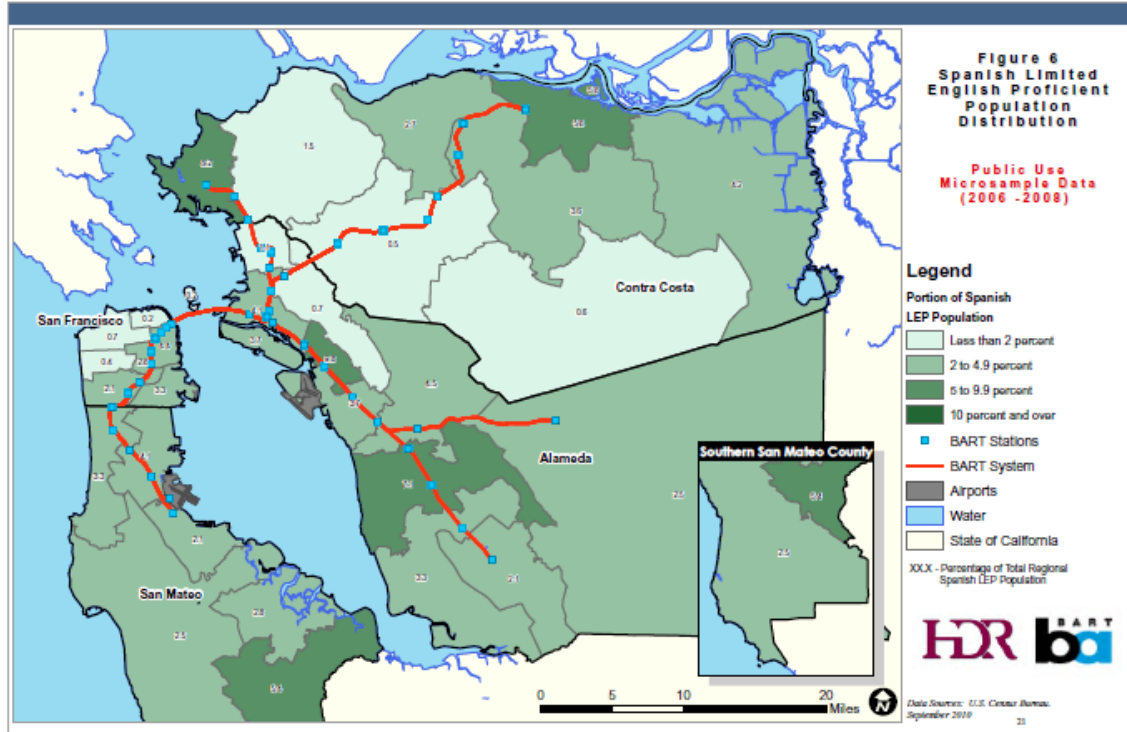
## Spanish Limited English Proficient Population Distribution





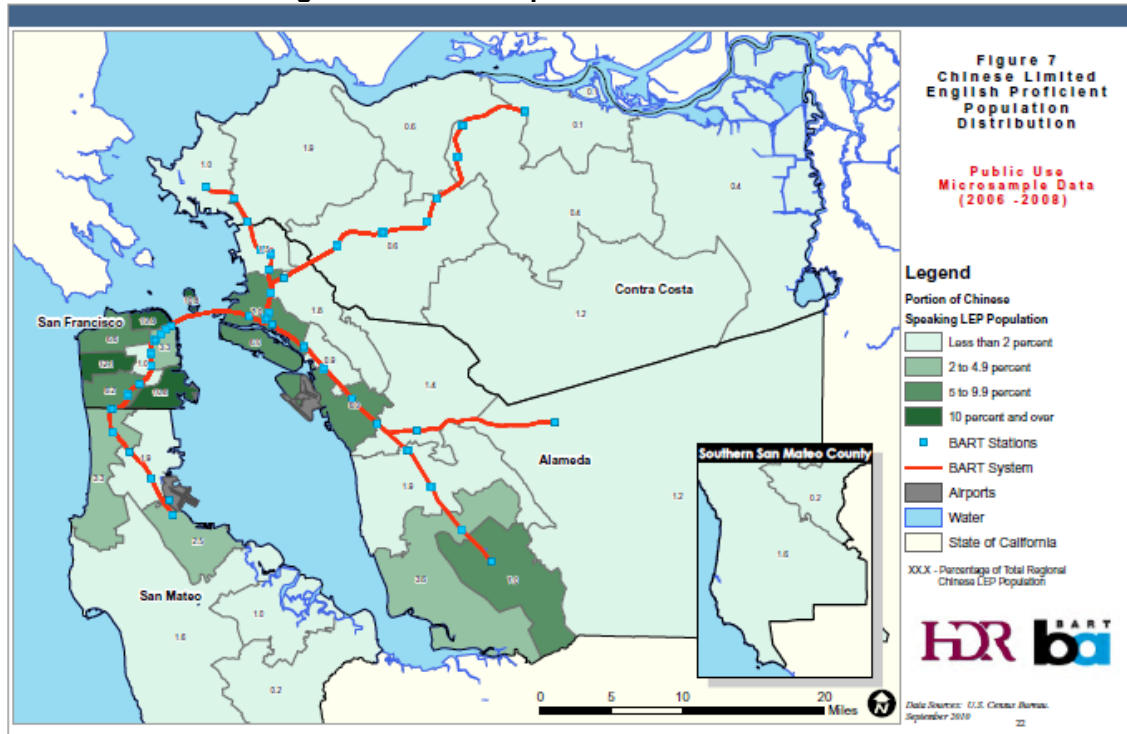
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## Chinese Limited English Proficient Population Distribution



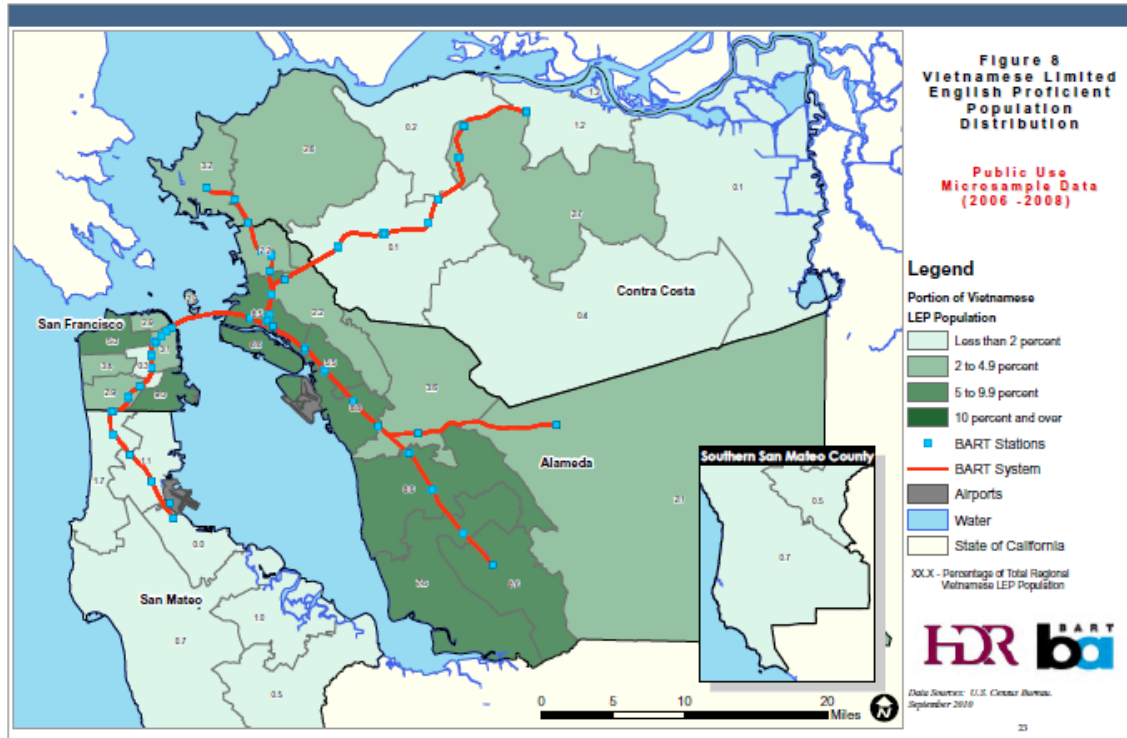
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## Vietnamese Limited English Proficient Population Distribution



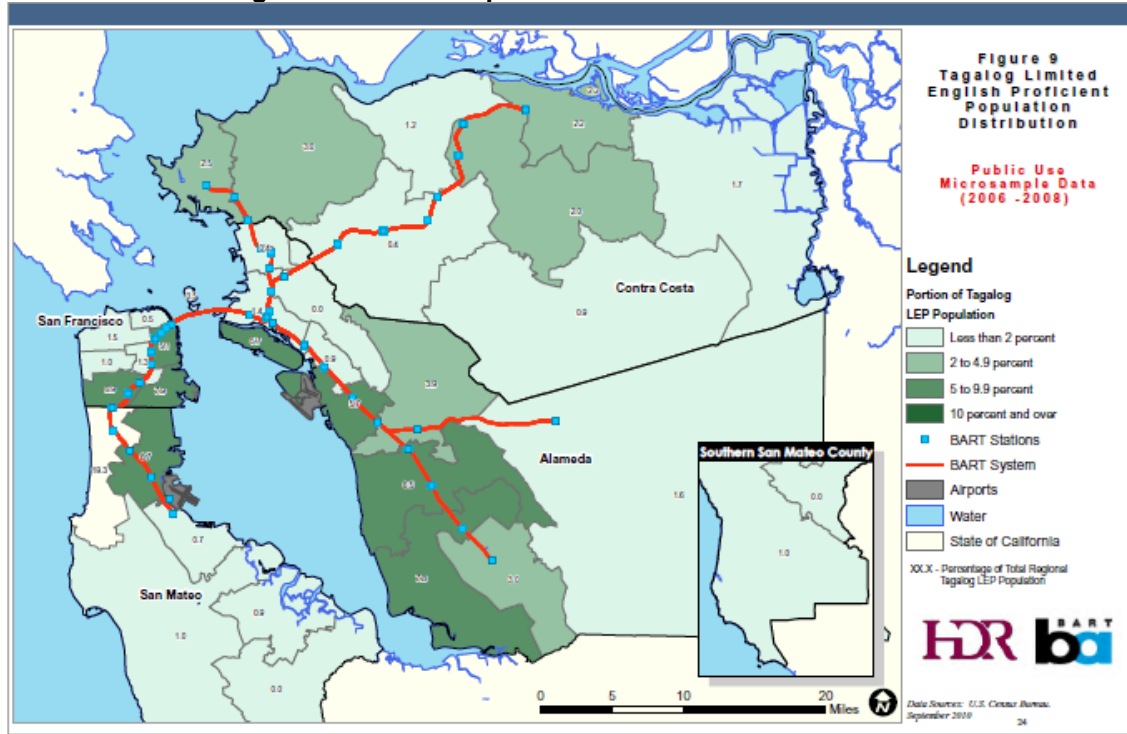
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## Tagalog Limited English Proficient Population Distribution



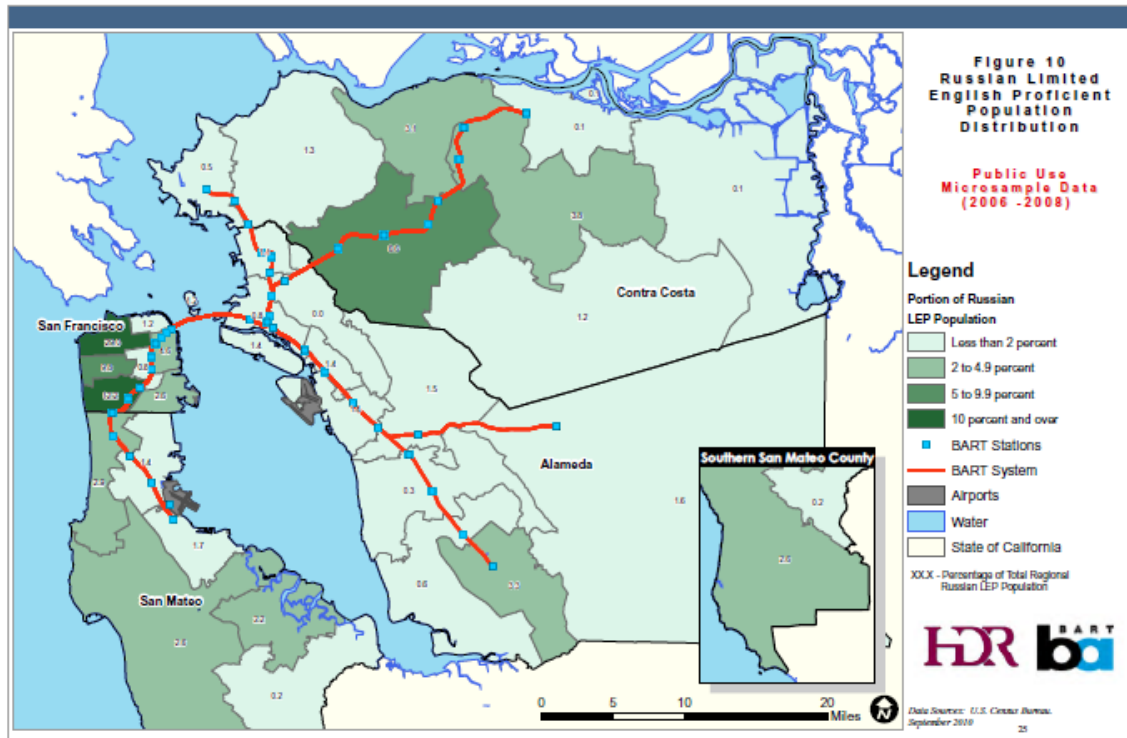
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## Russian Limited English Proficient Population Distribution



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## Korean Limited English Proficient Population Distribution



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### *California Department of Education*

In addition to considering the 2006 to 2008 ACS PUMS, the Factor 1 analysis considered language data from the CDE. The state's English Learners Database is another tool for identifying concentrations of potential LEP populations based on recent public school enrollment data.

These data include statistics on the language spoken at home by students who are English learners. The data include information on primary and secondary school students ranging from kindergarten to high school. It is assumed that if children are identified as speaking a language other than English and are considered "English Learners," then their parents or adult guardians are likely to speak the same language at home. While this dataset will not identify the number of people above the school age range that speak a language other than English, it can be helpful in determining concentrations of the population speaking a similar language.

CDE reported a 2008 to 2009 enrollment of 526,578 students within the 64 primary, secondary, and unified school districts in the four-county BART service area. Table 8 shows the breakdown for the languages with more than 500 English learners. The CDE language census data reported 52 separate languages spoken by students in the service area. Table 9 shows the distribution of English learners by county.

Table 8 **English Learners, by Language Spoken at Home**

Language	English Learners	Percentage of Total Enrollment
Spanish	76,430	14.5
Chinese	12,888	2.4
Tagalog	5,122	1.0
Vietnamese	3,052	0.6
Arabic	1,995	0.4
Punjabi	1,492	0.3
Persian	1,347	0.3
Korean	1,139	0.2
Hindi	1,079	0.2
Tongan	887	0.2
Russian	718	0.1
Urdu	583	0.1
Japanese	571	0.1
Other Languages	8,188	1.6
<b>Total</b>	<b>115,491</b>	<b>21.9%</b>

Source: 2008 to 2009 Language Census Data, California Department of Education, 2010.

This analysis provides a second point of reference on the overall geographic distribution of languages within the BART service area. For this analysis, enrollments of primary schools were grouped and combined by secondary school district. Appendix B includes additional

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detail from the English learner database, including a table that shows English learners by school district for the 13 languages shown in Table 8. It also includes figures that show the distribution of English learners by school district.

Table 9 English Learners, by County

County or Area	Total Enrollment	English Learners	Percentage of English Learners
Alameda	213,263	47,653	22.3
Contra Costa	166,890	28,483	17.1
San Francisco	56,454	17,126	30.3
San Mateo	89,971	22,229	24.7
<b>Service Area</b>	<b>526,578</b>	<b>115,491</b>	<b>21.9%</b>

Source: 2008 to 2009 Language Census Data, California Department of Education, 2010.

### Discussion

The CDE data provide a similar picture of the mosaic of languages spoken within the BART service area as that shown by Census 2000 data and the 2006 to 2008 ACS data. Spanish and Chinese are the top languages spoken at home by English learners. While Vietnamese, Tagalog, Russian, and Korean all appear in the list of languages with more than 500 English learners, the rank order of these languages is different than that shown by either U.S. Census Bureau dataset.

Tongan and Urdu both appear on the English learner language list, but do not appear in either the Census 2000 or ACS data. This may be because the U.S. Census Bureau's survey methodology may undercount the actual number of people who speak English less than well.

### Summary

This Factor 1 analysis used three sources of data recommended by FTA to describe the LEP population within the four-county BART service area. These sources are the Census 2000 data, the 2006 to 2008 ACS 3-year sample, and the CDE data. These descriptions include tabular material showing the languages spoken at home by LEP persons as well as graphics showing the geographic distribution of languages.

These sources reflect both the evolution of the population over the past decade as well as differences in data collection methods. The Census 2000 and ACS data are both sample data sets that can undercount the actual number of people who speak English less than well

## APPENDIX E: Frequency of Contact with LEP Individuals

Through its analysis of available census, school district, and DOL data, the Factor 1 analysis identified significant LEP populations within the four-county BART service area. The second step of the four-factor LEP needs assessment was an evaluation of the current frequency of contact between LEP individuals and BART programs, activities, and services. The USDOT “Policy Guidance Concerning Recipients’ Responsibilities to Limited English Proficient (LEP) Persons” (USDOT 2005) advises that:

“Recipients should assess, as accurately as possible, the frequency with which they have or should have contact with LEP individuals from different language groups seeking assistance, as the more frequent the contact, the more likely enhanced language services will be needed. The steps that are reasonable for a recipient that serves an LEP person on a one-time basis will be very different than those expected from a recipient that serves LEP persons daily.”

Following this guidance, BART surveyed its station agents, police personnel, transportation supervisors, and Transit Information Center (TIC) representatives, reviewed TIC requests for language assistance services, reviewed language assistance services through the Language Line Services, reviewed the number of translated website page views, and reviewed its 2008 on-board customer satisfaction survey. From these reviews, BART determined that its personnel are in frequent contact with LEP persons.

The language groups with the highest frequency varied depending on the data source. At the TIC, Spanish, Chinese (Cantonese and Mandarin), and Vietnamese were most frequently reported. BART station agents, police personnel, and transportation supervisors reported the highest number of contacts with Spanish, Chinese, Tagalog, and Japanese speakers. Both Japanese and German speakers have a high frequency of contact with the BART website and the BART train and station personnel because of the high number of tourists from these countries.

For purposes of estimating the frequency of contact with LEP individuals, BART has reviewed the relevant programs and services and has collected and analyzed data from the following sources:

- Calls to BART’s TIC and Language Line Services
- BART’s website page views
- BART’s 2008 customer satisfaction survey
- BART’s 2008 station profile study
- May 2010 survey information from station agents, police personnel, and transit information representatives

Appendix C shows BART notices to personnel related to LEP services.

### ***Calls to the Transit Information Center***

The TIC is staffed between 6 a.m. and 11 p.m. daily. It employs 20 transit information representatives and 1 supervisor who speak the following languages: English (16), Spanish (2), and Chinese (1) (Cantonese and Mandarin). In 2009, the TIC received 500 calls per month from non-English and limited-English speaking individuals, of which 150 calls requested language services through the Language Line Services. LEP individuals who call the TIC have direct access to Spanish and Chinese (Cantonese and Mandarin) speaking transit



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information representatives. For other languages, LEP individuals can be connected to the Language Line Services that can interpret over 170 languages.

Table 10 represents the details of BART's efforts to provide information in multiple languages through Language Line Services. Spanish is the number one language for which language services were requested.

Table 10 **Calls to Transit Information Center, January 2009 – December 2009**

Language	Language Line Calls
Spanish	89
Mandarin	20
Cantonese	20
Vietnamese	10
French	5
Korean	2
Burmese	1
Japanese	1
Bosnian	1
Arabic	1
<b>Total</b>	<b>150</b>

Source: BART Transit Information Center, October 2010.

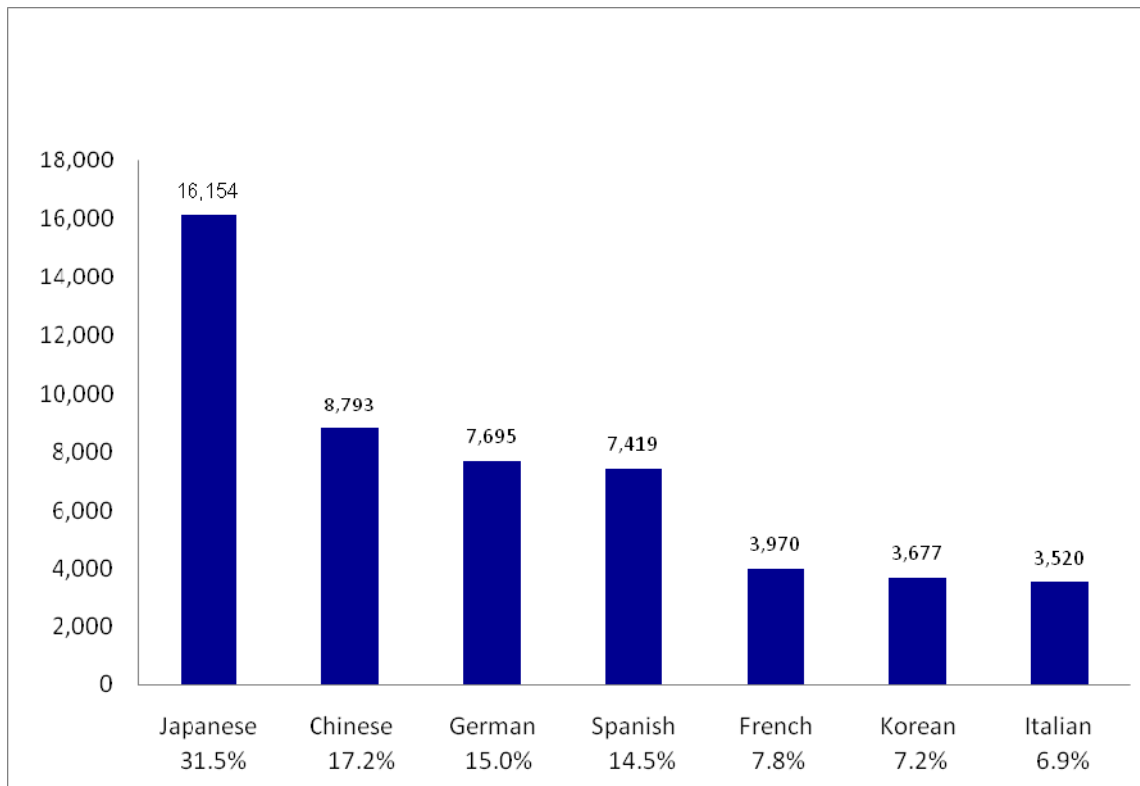
### ***BART Website***

The BART website provides basic BART transit information (e.g., service hours, tickets, trip planning, airport and transit connections, parking, bicycles, and services for persons with disabilities) in seven languages: French, German, Italian, Japanese, Korean, Chinese, and Spanish. Figure 3 shows the page views of the translated pages on BART's website in 2009. However, these page views shown do not reflect all translation requests for the [www.bart.gov](http://www.bart.gov) website pages. Customers frequently translate other pages of the site using third-party services, such as [www.microsofttranslator.com](http://www.microsofttranslator.com) and [translate.google.com](http://translate.google.com).

The basic BART transit information includes airport and transit connections used by visitors to the San Francisco Bay Area. BART has not collected statistics for standalone files such as the 'pdf' brochures in Spanish and Chinese at [www.bart.gov/guide/brochures.aspx](http://www.bart.gov/guide/brochures.aspx).

**Figure 3 BART Website 2009 Translated Page View Summary**

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Source: BART, October 2010.

Figure 3 shows that approximately 32 percent of the translations were for Japanese pages, 17 percent for Chinese pages, 15 percent for German pages, and 15 percent for Spanish pages. The high numbers for Japanese and German translation requests are not proportionate to the smaller size of these language groups relative to the Chinese and Spanish-speaking groups in the BART service area. These higher numbers, however, could be attributable to tourist language groups. BART serves international airports with a high percentage of tourist-riders. According to the San Francisco Convention and Visitors Bureau, Japan and Germany are the second and third highest producing international markets for San Francisco International Airport travel, behind the United Kingdom.<sup>1</sup>

### ***BART Customer Satisfaction Survey***

This on-board survey is conducted every 2 years to track customer satisfaction. While the questionnaire does not specifically collect LEP information, it is available in Spanish and Chinese, in addition to English. In 2008, a total of 6,216 completed questionnaires were collected. Among these, 163 (2.6 percent) were completed in Spanish, and 105 (1.7 percent) were completed in Chinese.

### ***BART 2008 Station Profile Study***

Table 11 shows an estimate of LEP riders riding the BART system that was produced using the U.S. Census Bureau data in combination with the BART 2008 Station Profile Study data.

<sup>1</sup> [http://www.sfcvb.org/media/downloads/travel\\_media/sf\\_facts.pdf](http://www.sfcvb.org/media/downloads/travel_media/sf_facts.pdf)

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For each of the four counties in the BART service area, the total population and LEP population were obtained from the Census 2000 database. From this, the percentage of LEP population in each of the four counties was estimated. Next, from the BART 2008 Station Profile Study and estimated 2010 average weekday ridership, the number of BART riders originating from each of the four counties was estimated. An estimate of potential LEP encounters in each county was estimated by applying half the percentage of LEP population<sup>2</sup> in that county to the 2010 BART ridership originating from that county. It is estimated that on an average weekday about 8.9 percent of BART's riders are LEP.<sup>3</sup>

Table 11 Estimated LEP Ridership, by County

County	Census 2000 population age 5+	Speak English Less than Very Well	Percentage LEP	2010 Average Weekday Riders <sup>b</sup>	Percentage LEP Riders <sup>b</sup>	LEP Riders
Alameda	1,346,666	237,864	17.7	66,366	8.8	5,861
Contra Costa	883,762	101,195	11.5	36,479	5.7	2,089
San Francisco	745,650	186,401	25.0	42,818	12.5	5,352
San Mateo	662,509	122,424	18.5	16,196	9.2	1,496
<b>Total</b>	<b>3,638,587</b>	<b>647,884</b>	<b>17.8%</b>	<b>161,858</b>	<b>8.9%</b>	<b>14,410</b>

Source: U.S. Census Bureau, Summary File 3 (SF 3), 2000, Table P19; BART, October 2010.

<sup>a</sup> Assumes round-trips

<sup>b</sup> LEP population rides subway/rail at about half the rate of general population per ACS data from 2006 to 2008.

### Employee Survey

In May 2010, BART conducted an online survey of its station agents, police personnel, and transit information representatives to determine the frequency of contact with LEP persons, as well as the language spoken by the LEP groups. A copy of the survey used is included in Appendix D.

Based on the 594 responses received for the above questions, about 18 percent of the respondents answered they encountered a customer seeking assistance who was unable to communicate well in English "many times a day." About 19 percent reported encounters a "few times a day." Employee respondents identified Spanish and Chinese-Mandarin or

<sup>2</sup> According to the 2006 to 2008 ACS Public Use Microdata Sample (PUMS), the LEP population likely rides subway and rail modes at about half the rate of the general population. This rate assumption is based on the following data: (1) In the four-county service area, 6.4 percent of workers ride rail transit to work (includes "subway or elevated" and "railroad" categories, and (2) Among LEP populations, 3.6 percent rode rail transit to work.

<sup>3</sup> According to the U.S. Census Bureau and FTA, persons who self-declare that they speak, read, or write English well could be LEP and unable to fully access transit services because of their language limitations. For this reason, BART is including persons who speak English "less than very well" in its broader definition of LEP. Such a definition also captures and includes "linguistically-isolated households" where children may act as the sole English proficient speakers/translators for the family.

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Chinese-Cantonese as the most common languages used by LEP customers. Table 12 shows a breakdown of the employee survey results.

Table 12 Employee Survey Summary

Response	Count	Percentage of Total (n=594)
<b>Question 1: How often do you typically encounter customers seeking assistance who are unable to communicate well in English?</b>		
A few times a week	139	23.40
A few times a month	128	21.55
A few times a day	111	18.69
Many times a day	106	17.85
Less than once a month	67	11.28
Rarely or never	43	7.24
<b>Question 2: Do you recognize any languages commonly used by limited English speaking customers?<sup>a</sup></b>		
Spanish	515	86.70
Chinese-Mandarin	275	46.30
Chinese-Cantonese	270	45.45
Tagalog	145	24.41
Japanese	124	20.88
Vietnamese	98	16.50
Russian	67	11.28
Korean	66	11.11
Indian/Hindi	65	10.94
Portuguese	49	8.25
Arabic	40	6.73
Thai	30	5.05
Persian	26	4.38
Cambodian	22	3.70
Laotian	20	3.37
Burmese	12	2.02
I do not recognize any languages	37	6.23
Not applicable	7	1.18

Source: BART, October 2010.

<sup>a</sup> Multiple responses accepted

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Table 13 shows the frequency of LEP encounters by station location. Employees at the Lake Merritt Station reported the highest number of encounters with customers who were unable to speak English well.

Table 13 Survey Responses Pertaining to LEP Encounters

Station Name	Rarely or never	Less than once a month	A few times a month	A few times a week	A few times a day	Many times a day	Total Responses
12th Street Oakland	—	—	—	2	2	8	12
16th Street Mission	—	—	3	1	—	2	6
19th Street Oakland	2	3	3	3	2	3	16
24th Street Mission	—	—	—	—	—	4	4
Ashby	—	—	1	—	1	2	4
Balboa Park	—	—	—	4	3	3	10
Bayfair	2	2	2	2	3	—	11
Berkeley	1	1	6	2	2	4	16
Castro Valley	—	1	6	5	—	—	12
Civic Center	1	—	1	3	3	3	11
Coliseum/ Oakland Airport	—	—	1	2	3	—	6
Colma	2	—	1	2	1	1	7
Concord	1	3	1	5	3	4	17
Daly City	3	1	1	3	1	4	13
Dublin/Pleasanton	1	2	4	3	4	1	15
El Cerrito Del Norte	—	4	3	2	3	3	15
El Cerrito Plaza	—	—	2	1	1	1	5
Embarcadero	1	—	2	2	2	3	10
Fremont	—	—	1	3	2	5	11
Fruitvale	—	—	—	—	3	2	5
Glen Park	—	—	—	2	2	1	5
Hayward	1	2	3	3	3	2	14
Lafayette	1	—	1	1	2	—	5
Lake Merritt	10	10	16	19	13	5	73
MacArthur	—	—	—	4	4	2	10
Millbrae	—	1	2	5	2	3	13
Montgomery Street	1	2	3	4	4	4	18

## APPENDIX E: Frequency of Contact with LEP Individuals

N. Concord/Martinez	1	—	2	—	1	—	4
North Berkeley	—	1	—	1	—	2	4
Orinda	—	1	1	1	1	—	4

Table 13 Survey Responses Pertaining to LEP Encounters (continued)

Station Name	Rarely or never	Less than once a month	A few times a month	A few times a week	A few times a day	Many times a day	Total Responses
Pittsburg/Baypoint	1	4	1	5	4	4	19
Pleasant Hill	—	—	1	3	1	1	6
Powell Street	—	2	5	3	7	7	24
Richmond	1	1	2	—	1	4	9
Rockridge	—	—	1	2	1	1	5
San Bruno	1	3	—	1	2	—	7
San Leandro	—	—	—	1	2	1	4
SFIA	—	2	3	1	3	8	17
South Hayward	2	—	—	1	4	1	8
South San Francisco	—	1	—	—	1	2	4
Union City	1	—	—	—	3	—	4
Walnut Creek	—	1	6	3	2	2	14
West Oakland	1	—	—	2	2	1	6
ZONE1	2	9	14	14	1	—	40
ZONE2	1	3	11	4	—	—	19
ZONE3	1	3	9	6	3	1	23
ZONE4	4	4	9	8	3	1	29
<b>Grand Total</b>	<b>43</b>	<b>67</b>	<b>128</b>	<b>139</b>	<b>111</b>	<b>106</b>	<b>594</b>

Source: BART, October 2010.

Note: '—' indicates no survey response.

In July 2010, BART implemented the LEP Language Specific Counter to track contact with LEP persons. Frontline BART personnel — police officers, community service officers, station agents, operations supervisors and operations foreworkers — access this counter through the TSIWeb intranet system. Personnel are required to complete the LEP Language Specific Counter after assisting each LEP customer. Table 14 provides a summary of the contacts recorded by BART personnel from August 2010 to October 2010.

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Table 14 BART LEP Contacts from August 2010 to October 2010.

Language	Total
Spanish	251
Chinese (Cantonese and Mandarin)	95
French	5
Hindi	5
Japanese	3
Other	34
<b>Grand Total</b>	<b>392</b>

Source: BART, November 2010.

### **Community Outreach**

Since May 2010, BART has conducted telephone interviews with 19 community-based organizations (CBOs) and focus group meetings that reached over 400 people.

Key findings from this outreach effort include:

- Access to public transportation is a primary need. LEP persons typically do not have access to a private vehicle, and they rely on public transportation for mobility. However, LEP populations have also declared confusion and fear as primary reasons for not using public transportation.
- LEP populations generally expressed a need for translated transit service schedule information, larger font sizes for transit schedules, and more audible announcements on trains, buses, and at stations.

### **CBO Interviews**

In May, BART conducted telephone interviews with 19 CBOs to better understand how to increase use of the BART system by persons with limited English abilities. Conducted by HDR Engineering, Inc., during these interviews the CBOs were asked a series of recommended questions from the FTA handbook "Implementing the Department of Transportation's Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient (LEP) Persons" (FTA 2007b). A list of the CBOs contacted for this survey is in Appendix D.

CBOs typically dealt with populations living in the immediate vicinity of their offices, but they also served greater Bay Area populations. The size of populations served by CBOs ranged from 2,000 to over 20,000 persons. Most CBOs also reported that in the past 5 years there has been an increase in size of populations served. The CBOs indicated that they serve populations speaking a broad range of languages, including Spanish, Chinese, Laotian, Vietnamese, Thai, Cambodian, and Tagalog.

## APPENDIX E: Frequency of Contact with LEP Individuals

CBOs indicated that over 50 percent of the population served typically has some high school education. CBOs surveyed indicated a willingness to host BART meetings with their constituencies. The presence of a BART staff member with a recognized local translator would be an effective method for communicating service information to their constituencies. CBOs also indicated that simple handout materials were often the best method to communicate with LEP populations. Finally, some CBOs felt that materials could also be provided at public schools or English-learner schools that would be available to both students and parents.

According to the CBOs, the expressed needs of LEP populations regarding language assistance include the following:

- **Transit Service Schedule Information:** LEP populations have expressed a general need for bus or train schedule information published in a format readily understandable in their primary languages.
- **Font Sizes of Schedules and Media:** Community groups identified age as an influential factor for making trips on the transit network. According to survey respondents, seniors are often one group of LEP populations who take transit to access their agency's services. As a result, these populations may require larger printed fonts for transit service information. One group noted that seniors were often accompanied by younger family members assisting them during visits to the agency offices. According to this agency, seniors have expressed difficulty reading and understanding schedules or other media on transit service.
- **Audible Announcements on Trains, Buses, and at Stations:** Many of the community groups interviewed indicated that LEP persons might feel more comfortable using public transportation if general automated announcements (arriving and departing trains, door announcements, and public safety announcements) were made in their primary language.
- **Visual versus Typed Information:** Some LEP populations have indicated that they are unable to read or have difficulty reading media with typed color names in English referring to the colors of transit lines. Additionally, each responding group indicated that a proportion of the LEP population they served was illiterate. Visual cues were an important aspect of mobility for persons with little to no literacy ability.
- **System Transfers:** As another aspect of system comprehension and navigation, understanding the need to transfer between transit lines could be confusing to LEP populations. Directional instructions, either through a website or at stations on how to access destinations in specified languages would also help LEP populations.
- **Accessibility for Persons with Disabilities:** Responding organizations indicated that public transportation services provide very good service to citizens with disabilities. However, LEP populations with disabilities sometimes felt uncertain about how to use these services. Providing information in a variety of languages on how to access and use public transportation for persons with disabilities was also cited as a need. According to some agencies, LEP populations may feel more comfortable using public transportation systems if drivers, station managers, or staff were available and could assist them with securing wheelchair or other mobility aides.

### Conclusion

This Factor 2 analysis showed that there is frequent contact between LEP individuals and BART personnel. Language line calls, website page views, and the employee



## **APPENDIX E: Frequency of Contact with LEP Individuals**

survey all show a high degree of contact between persons with limited English proficiency and BART programs. Further, telephone interviews with CBOs and focus group meetings indicated ways BART could improve its services to accommodate riders who have limited English abilities.

## **APPENDIX F: BART's Language Assistance Services**

BART is committed to full compliance with Title VI and Executive Order 13166 to provide meaningful access and reduce barriers to services and benefits for persons with limited English proficiency.

### **Current Language Assistance Measures**

As discussed earlier in this Language Assistance Plan, BART currently provides both oral and written language assistance. Oral language assistance includes bilingual transit information representatives that staff the TIC. These representatives speak Spanish and Chinese (Cantonese and Mandarin). Language Line Services provide interpreters for 170 languages over the telephone. This is available at each of the 43 stations in the District's system. BART also provides interpreters at public meetings.

Written language assistance includes:

- BART's Title VI complaint form and Title VI policy and procedures are available in 22 languages and have been posted in Chinese, Spanish, Korean, Russian, Vietnamese, and Tagalog on the BART website: <bart.gov>.
- Translation of some vital documents is provided, such as the BART Basics brochure and service bulletins in Spanish and Chinese.
- Translation of paratransit information is provided in Spanish and Chinese.
- Language Line Services identification ("I Speak Card") is available at all 43 stations.
- Third-party website translation services (such as <www.microsofttranslator.com> and <translate.google.com>) are available to translate content on <bart.gov>.
- Limited use of pictograms or other symbols is present in stations.
- Basic BART transit information in seven languages is available on the BART website (<bart.gov>). The seven languages are: Japanese, Chinese, German, French, Italian, Korean, and Spanish.
- Meeting notices and public input surveys at public meetings are translated.
- Biannual customer satisfaction surveys in Spanish and Chinese are translated.

### **Future Language Assistance Services**

BART has identified future language assistance services that can be implemented. Table 15 identifies both Category 1 and Category 2 language assistance services. Category 1 services can be implemented with existing resources by the stated due date or can be provided on a continual basis. Category 2 language assistance services that require further study and analysis and can be implemented if resources are available.

## APPENDIX F: BART's Language Assistance Services

Table 15 Language Assistance Services

Implementation Timeframe	Language Assistance Service
<b>Category 1</b>	
June 30, 2011	Provide notices to LEP populations to inform them of BART's language assistance measures
June 30, 2011	Implement a training program for train operators, operations foreworkers, and new hires on the District's LEP program
February 17, 2011	Develop a procedure to ensure that written materials are accurately translated
February 17, 2011	Create a one-stop LEP information center in the Office of Civil Rights for BART employees
December 31, 2011	Explore opportunities to train volunteer BART bilingual staff to act as interpreters and translators
December 31, 2011	Enhance the BART Safety Guide to include translated emergency evacuation information
December 31, 2011	Develop safety and security materials and partnering with CBOs to provide training to their constituents
On-going	Conduct outreach to LEP populations and CBOs to enhance meaningful access to BART services and benefits
Three-year cycle	Monitor and update the LEP Plan; evaluate changes in LEP demographics
Quarterly	Measure frequency of LEP contacts
<b>Category 2</b>	
As resources become available	Explore technology or other options to improve language assistance measures at BART stations that provide information on navigating the BART system and using fare equipment and fare media, including safety, security, and other information
	Upgrade telephone equipment in the station information booths to dual handsets to enhance customer service while using Language Line Services. Prioritize the rollout of the dual handsets in BART stations with high LEP concentrations
	Explore the feasibility of expanding the use of pictograms for informational and instructional signs with input from LEP populations.
	Explore the feasibility of enhancing signage and automated announcements on new revenue cars so that LEP persons can clearly identify station locations and train direction
	Explore the feasibility of using pictograms and symbols for the emergency evacuation car cards.
	Explore the feasibility of consolidating brochures and printed media for translation.

Source: BART, November 2010.

## APPENDIX G: Language Translation Threshold Analysis

Based on the analysis conducted in Factor 1, Factor 2 and Factor 3, the District defines its Language Translation Threshold as Spanish, Chinese, Vietnamese, and Korean. At each triennial review, the District will reevaluate this threshold based on its LEP tracking data so that it corresponds to the language groups the District frequently encounters. With due consideration to resource and time constraints, any document designated as a Vital Document will be translated into these four languages.

Beyond these four languages, the District will translate documents into additional languages in the following cases:

**Twenty-two languages:** The Notice on Language Assistance Measures and Title VI Policy, Compliant Procedure and Rights under Title VI will be translated into 22 languages.

**Eight languages:** The BART Basics and Safety Guide will be translated into 4 languages (Spanish, Chinese, Vietnamese, and Korean) plus the 4 languages most frequently encountered on [www.bart.gov](http://www.bart.gov) (Japanese, German, Italian and French).

**Additional languages:** On case-by-case basis for significant projects the District may, at its discretion, translate documents into additional languages if the nature of the document and the character of the document's target audience justify additional translation. Additional languages will be determined by the frequency of encounters with language groups. If the District lacks data on encounters, additional languages may be determined by demographic data and USDOT guidelines on language translation.

The Factor 1 demographic analysis for the four-county service area identified the LEP population as 689,499 or 18.6 percent of the total population. The most common languages that represent over 85 percent of the LEP population in the service area include: Spanish (295,763), Chinese (185,070), Tagalog (47,047), Vietnamese (27,229), Russian (17,083) and Korean (16,834). With the exception of one language group (Russian), these LEP persons are either distributed throughout the District's service area or concentrated near or around BART stations. However, for Russian LEP riders, close to half of the population is concentrated in areas far from BART stations, like the westernmost portions of San Francisco and San Mateo counties.

The Factor 2 analysis of frequency of LEP contacts reviewed calls to BART's Transit Information Center and Language Line and [bart.gov](http://bart.gov) page views and the May 2010 survey of station agents, police personnel and transit information clerks.

- For the period from January 2009 to December 2009, Spanish and Chinese were the most frequently requested languages for interpretation among calls to the BART TIC. All other remaining languages logged few requests during the same period, with only three languages (Vietnamese, French, and Korean) logging more than one request. No recorded requests were made to the TIC for assistance in Tagalog or in Russian.
- For the 2009 calendar year period, the most frequent languages requested for translation on the BART website, [www.bart.gov](http://www.bart.gov), were French, Japanese, Chinese, German, Spanish, Korean and Italian. The BART website provides basic transit information including airport and transit connections that are used by visitors to the San Francisco Bay Area.

## APPENDIX G: Language Translation Threshold Analysis

- BART conducted an on-line survey of station agents, police personnel and transit information clerks in May 2010 to determine the frequency of contact with LEP persons and with their respective language groups. Based on the responses received, more than 80 percent of surveyed employees reported encounters with Spanish- and Chinese-speaking LEP riders. Less than one quarter of surveyed employees reported recognizing the remaining language groups among LEP riders.

As a part of its Factor 3 assessment, BART conducted 19 focus groups meetings in Spanish, Chinese, Tagalog, Japanese, Vietnamese, Russian and Korean. Among the language groups surveyed, the assessment reported that one language focus group (Tagalog) had limited to no need for translation. It further found that another language group (Russian) expressed more concerns regarding other transit agencies services than those of BART.

- **Tagalog:** Three focus group meetings were held with the Filipino LEP community. At all three meetings a translator was available however, the participants did not request assistance. All of the meetings, including the question and answer session were conducted in English. The survey, which was handed to participant at the end of the meeting, was printed in English and Tagalog. Most participants did not request the Tagalog version of the survey.
- **Russian:** Based on Factor 1 demographic analysis, the Russian population is located in the northwestern section of San Francisco. The Russian transit riders primarily use San Francisco Municipal Transportation Agency buses because they are not close to a BART line. During the Factor 3 community meeting, the majority of the questions from the participants were regarding the use of the Clipper on San Francisco Municipal Transportation Agency system. A few questions about BART arose during the meeting.

Information from Factor 1, 2, and 3 self-assessments was used to determine the District's Language Translation Threshold. The District determined that the language groups that it most frequently encountered were Spanish and Chinese. However, if notice of language services and actual translation services were expanded, the District could serve more language groups.

Accordingly, the District determined a threshold of four languages in order to serve the most frequently encountered language groups (Spanish and Chinese) and to serve potential languages groups whose encounters with BART services could become frequent (Vietnamese and Korean). Based on focus group surveys and meetings, these latter two groups represent the most populous language groups that are in need of language assistance that may find BART services important.