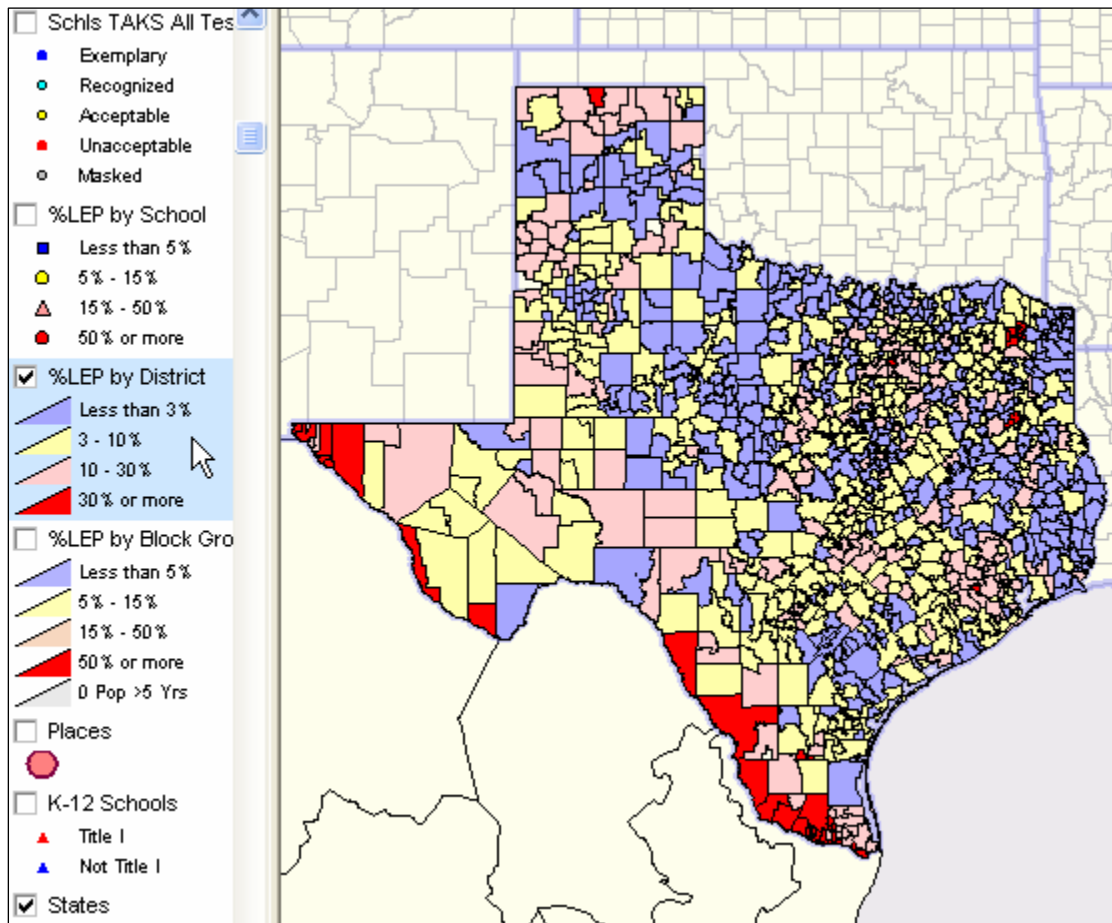


## Assessing English Language Proficiency and School Performance Improvement



Percent Population with Limited English Proficiency by Texas School District

This document has been prepared to illustrate analyses relating to assessment of English language proficiency and school performance. The document illustrates the use of data and mapping tools to address topics such as:

- How can you view patterns of limited English proficiency by school, neighborhood and school district?
- What is the relationship of the population with limited English proficiency and school performance?
- How do such relationships vary by school attendance area and among school districts?

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## 1 Measuring English Language Proficiency

English language proficiency is a cornerstone of communication, business, and the economy. Data on English language proficiency equip us to better understand 'where we are' and help enable us to develop plans to identify areas of need and improve on English language proficiency. Increased proficiency in English will allow more students from both English-speaking and non-English-speaking backgrounds to be better academically prepared for college. Much of the challenge, and opportunity, to make improvements lies within the realm of K-12 schools and school systems. This document reviews data resources and tools for assessing the state of English language proficiency in the context of small area geography and schools, but yet on a national scale. This information can benefit individual school and neighborhood stakeholders as well as developing and managing national scope business and education operations.

Much of what is known about the ability to speak English is derived from the decennial census of population and housing. But, decennial census data do not tell us about English language proficiency for those who speak only English. In addition, census data are respondent-based. Data about language proficiency is in the view of the respondent.

**What we know about English language proficiency.** Data available from Census 2000 provide a good starting place to assess the state of English language proficiency for smaller geographic levels across the U.S. Using Census 2000 Summary File 3 data makes it possible to analyze characteristics of language use and the ability to speak English by [census block group](#) and all higher geographic summary levels including county school district, place, ZIP code, census tract, neighborhood and many other levels.

As shown in the following table, persons 5 to 17 years of age in the U.S. with limited English proficiency increased from 2.00-percent to 2.49-percent between 1990 and 2000. Language diversity increased as the percent of this population who speak English only decreased from 86.06-percent in 1990 to 81.58-percent in 2000.

Population Attribute	1990 Census		Census 2000		Change, 1990-2000	
Population 5-to-17 years of age	45,342,448	100.00%	53,096,003	100.00%	7,753,555	17.10%
Speak only English	39,019,514	86.06%	43,316,237	81.58%	4,296,723	11.01%
Speak other languages	6,322,934	13.95%	9,779,766	18.42%	3,456,832	54.67%
Not well; not at all	907,563	2.00%	1,321,976	2.49%	414,413	45.66%

Decennial census data on language use and the ability to speak English are tabulated from the long form questionnaire. See the [more detailed description](#) for additional information. The following questions were asked in Census 2000 and the 1980 and 1990 censuses:

- Does this person speak a language other than English at home?
- What is this language?
- (For those who speak another language) How well does this person speak English?  
--very well, well, not well, not at all.

## 2 Analysis of Proxy Measures for English Language Proficiency

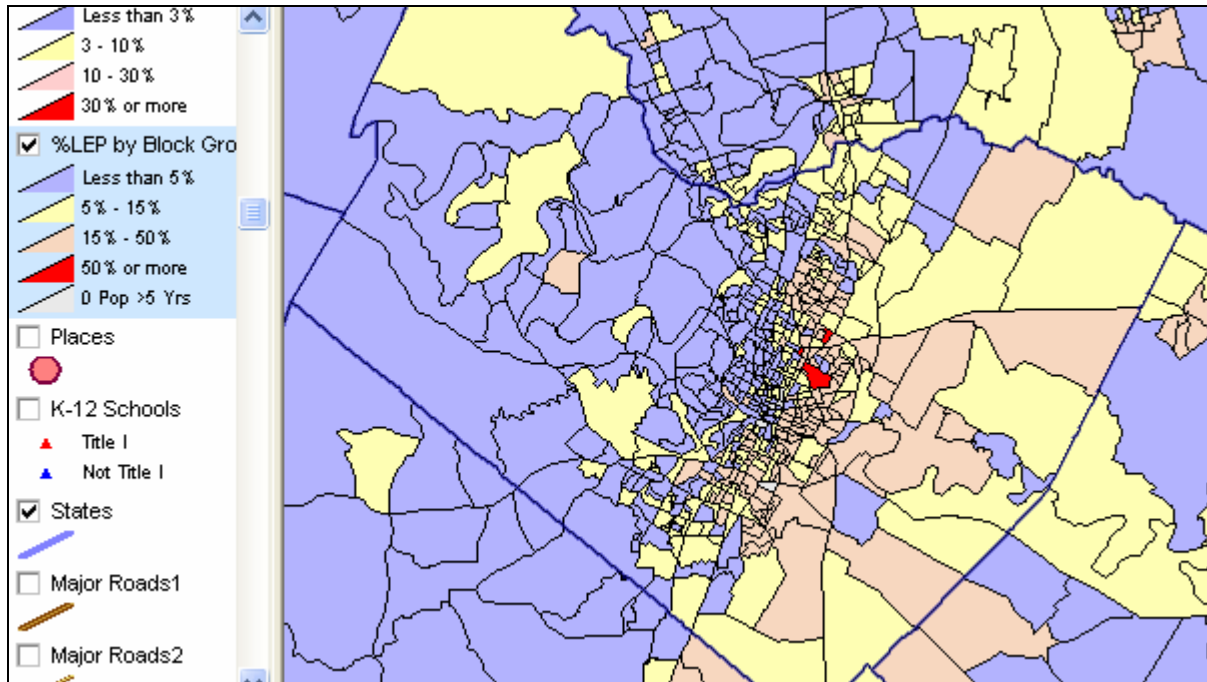
As noted earlier, decennial census data do not tell us about English language proficiency for those who speak only English. Thus, proxy measures for English language proficiency, for any language speaking group, is restricted by the same limitations. In addition, census data are respondent-based. Data about language proficiency is in the view of the respondent. However, data on non-English language speakers who do not speak English very well or not at all at home provides a proxy measure for a group of the population who have limited English language proficiency.

**“How Well” English is Spoken at Home.** The following table, based on data from Table 19 Census 2000 Summary File 3, shows data for 'how well' English is spoken at home for selected language categories for the school age population. These data are tabulated down to the [census block group](#) level covering the U.S. wall-to-wall. The percent population who speak English “not well” and “not at all” may be considered as a proxy measure for the percent population having Limited English Proficiency (LEP).

Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over

	U.S.	Texas	Travis County	Tract 21.12
Total:	262,375,152	19,241,518	753,786	5,315
5 to 17 years:	53,096,003	4,263,628	134,053	1,133
Speak only English	43,316,237	2,882,740	95,640	544
Speak Spanish:	6,830,100	1,254,273	33,166	543
Speak English "very well"	4,245,416	774,177	18,404	178
Speak English "well"	1,546,722	290,570	7,125	126
Speak English "not well"	831,915	152,400	5,682	107
Speak English "not at all"	206,047	37,126	1,955	132
Speak other Indo-European languages:	1,445,063	49,011	1,710	7
Speak English "very well"	1,056,210	37,425	1,356	7
Speak English "well"	258,109	7,636	240	0
Speak English "not well"	117,706	3,631	97	0
Speak English "not at all"	13,038	319	17	0
Speak Asian and Pacific Island	1,158,936	63,871	3,014	0
Speak English "very well"	732,381	42,206	1,991	0
Speak English "well"	300,869	15,152	661	0
Speak English "not well"	116,520	6,067	334	0
Speak English "not at all"	9,166	446	28	0
Speak other languages:	345,667	13,733	523	39
Speak English "very well"	252,641	10,261	385	19
Speak English "well"	65,442	2,341	65	13
Speak English "not well"	24,784	944	64	7
Speak English "not at all"	2,800	187	9	0

The following graphic shows a map of the percent LEP population by block group for the Austin, Texas (Travis County) area. This view was prepared using the Texas School District Performance Analysis (TXSDP) tools ([described in later section](#)). Using this map project, it is easy to see where higher proportions of population who do not speak English well are located.

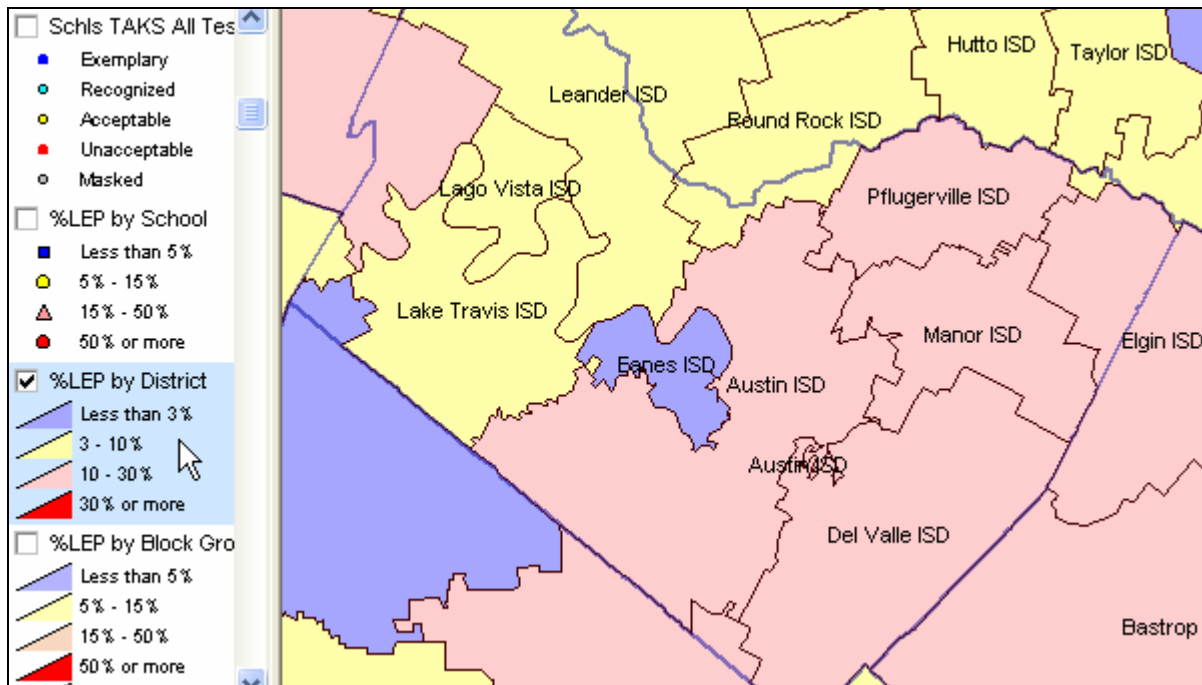


**Language Spoken at Home by County and Census Tract.** A Census 2000 special tabulation provides the language spoken at home data broken out by detailed type of language at the county and census tract levels. For the state of Texas, data are presented for number of persons speaking 143 languages. The following table shows the population 5 yrs and over for selected tracts in Travis County

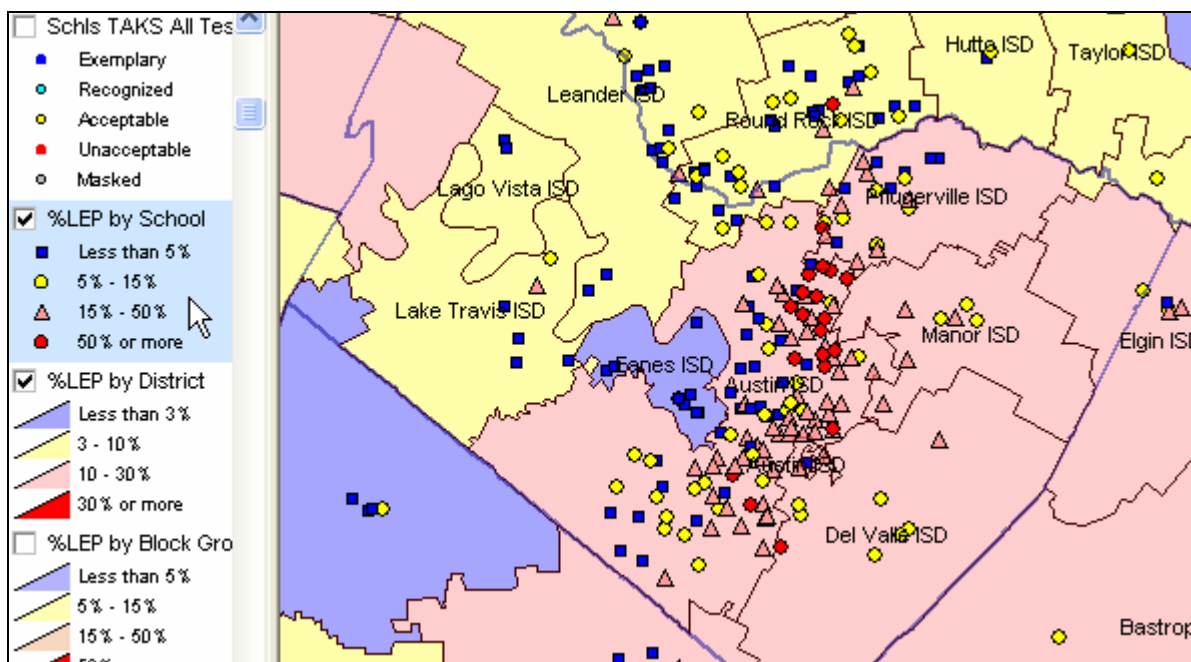
County	Tract	County	Code	Language	Speakers
453	001718	Travis	000	English only	4,580
453	001718	Travis	607	German	40
453	001718	Travis	620	French	25
453	001718	Travis	625	Spanish	330
453	001718	Travis	708	Chinese	90
453	001718	Travis	724	Korean	120
453	001719	Travis	000	English only	3,030
453	001719	Travis	607	German	15
453	001719	Travis	620	French	20
453	001719	Travis	625	Spanish	240
453	001719	Travis	708	Chinese	30
453	001722	Travis	000	English only	2,640
453	001722	Travis	607	German	35
453	001722	Travis	625	Spanish	210
453	001722	Travis	663	Hindi	65
453	001722	Travis	701	Telugu	50
453	001722	Travis	708	Chinese	45
453	001732	Travis	000	English only	10,205
453	001732	Travis	607	German	70
453	001732	Travis	625	Spanish	1,065
453	001732	Travis	642	Czech	25
453	001732	Travis	708	Chinese	140
453	001732	Travis	724	Korean	50
453	001732	Travis	728	Vietnamese	190

### 3 Schools and School Districts: LEP and School Performance

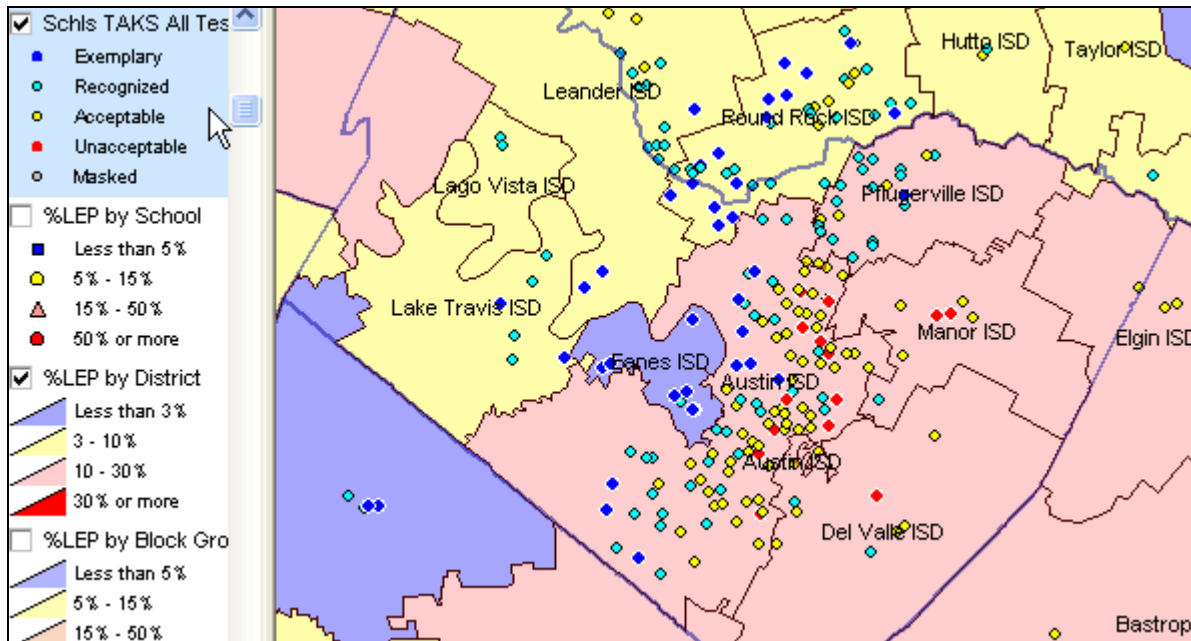
Using the [TXSDP resources](#), it is possible to examine LEP at the school and school district levels and obtain a visual analysis of patterns. These data and patterns can then be viewed in combination with school and school district performance data. Taken in combination, these data and analyses can help school leadership and stakeholders identify areas where school performance might be improved by augmenting English language proficiency. The following view shows the percent enrolled population LEP by school district for the Austin area. See the blue highlighted legend at left to associate LEP percent with color patterns.



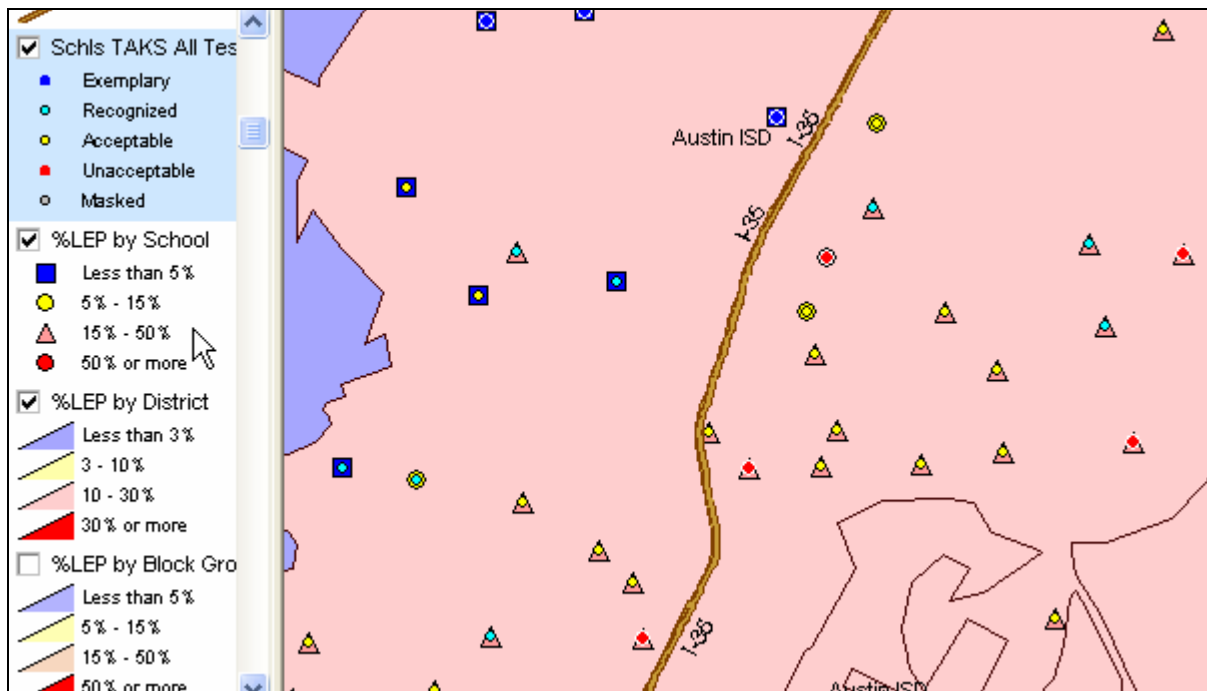
The percent LEP by school can be superimposed on the above map so that percent LEP patterns by school can be seen in content of school districts.



The following graphic shows school performance patterns where school markers are associated with different colors. It is easy to see which schools are associated with different performance levels. The performance data is based on the Texas Assessment of Knowledge and Skills (TAKS) 2006 data.



Zooming into the center of Austin ISD, the school performance patterns and %LEP patterns can be viewed together.



## 4 Assessing Trends

### 4.1 School Performance

The CV/TXSDP Analysis>School Performance Analysis can be used to display the 2005 and 2006 TAKS data for all Texas school districts. The next graphic shows a comparative analysis for Austin ISD and two adjacent districts, Eanes ISD and Leander ISD. The comparative analysis profile shows a side-by-side comparison of school district performance, in this example for all test takers. This database includes two years of TAKS test data enabling comparison of change from 2005 to 2006. As the database is updated in 2007, three years of data will start to enable trend analysis.

School/School District Performance Analysis				
File				
Test Taker Group <input checked="" type="radio"/> All Students <input type="radio"/> White <input type="radio"/> Black Strudents <input type="radio"/> Economically Disadvantaged <input type="radio"/> Hispanic <input type="checkbox"/> Show Flag/Group	All Students			
Select districts from file: <input type="text" value="c:\cv1\txfiles\sdp1.txt"/> <input type="button" value="Go"/>	Austin ISD	Eanes ISD	Leander ISD	
... or multi-select from list: Excel Output File <input type="text" value="c:\cv1\txfiles\sdp1.xls"/>				
217901 Aspermont ISD 107901 Athens ISD 034901 Atlanta ISD 061907 Aubrey ISD <b>227901 Austin ISD</b> 196901 Austwell-Tivoli ISD 070901 Avalon ISD 194902 Avery ISD 034902 Avinger ISD 161918 Axtell ISD 220915 Azle ISD 030903 Baird ISD 200901 Ballinger ISD 195902 Balmorhea ISD 010902 Bandera ISD 025901 Bangs ISD 178913 Banquete ISD 036902 Barbers Hill ISD 014902 Bartlett ISD 011901 Bastrop ISD 158901 Bay City ISD 123910 Beaumont ISD 183901 Beckville ISD 013901 Beeville ISD 039904 Bellevue ISD 091901 Bells ISD				
	Science 2005 Taking	12,364	1,589	3,585
	Science 2005 Passed	7,699	1,470	2,676
	Science 2005 % Pass	62	93	75
	Science 2006 Taking	12,256	1,591	3,988
	Science 2006 Passed	8,367	1,503	3,238
	Science 2006 % Pass	68	94	81
	Math 2005 Taking	40,635	4,726	11,803
	Math 2005 Passed	27,516	4,484	9,782
	Math 2005 % Pass	68	95	83
	Math 2006 Taking	40,849	4,717	12,940
	Math 2006 Passed	28,718	4,486	11,054
	Math 2006 % Pass	70	95	85
	Reading 2005 Taking	40,582	4,712	11,821
	Reading 2005 Passed	32,365	4,548	10,752
	Reading 2005 % Pass	80	97	91
	Reading 2006 Taking	40,713	4,711	12,970
	Reading 2006 Passed	33,692	4,628	12,162
	Reading 2006 % Pass	83	98	94
	Social Studies 2005 Taking	12,237	1,612	3,587
	Social Studies 2005 Passed	10,186	1,589	3,312
	Social Studies 2005 % Pass	83	99	92
	Social Studies 2006 Taking	11,790	1,654	3,900
	Social Studies 2006 Passed	9,787	1,636	3,549
	Social Studies 2006 % Pass	83	99	91
	writing 2005 Taking	8,878	940	2,743
	writing 2005 Passed	7,750	929	2,561
	writing 2005 % Pass	87	99	93
	writing 2006 Taking	9,284	1,042	2,866
	writing 2006 Passed	8,109	1,035	2,705
	writing 2006 % Pass	87	99	94



## 4.2 Limited English Proficiency

LEP trend data that can be integrated with the performance trend data are shown in the following table. This table shows an example of a multi-year trend profile at the state, district, and school levels.

		2000	2001	2002	2003	2004	2005	2006
Texas	LEP	555,334	570,453	600,922	630,148	660,308	684,007	711,237
	Enrollment	3,991,783	4,059,619	4,146,653	4,239,911	4,311,502	4,383,871	4,505,572
	%LEP	13.9%	14.1%	14.5%	14.9%	15.3%	15.6%	15.8%
	Bilingual/ESL	498,222	509,884	542,312	572,019	606,190	631,534	657,716
	%Bilingual/ESL	12.5%	12.6%	13.1%	13.5%	14.1%	14.4%	14.6%
Austin ISD	LEP	13,053	13,841	15,243	16,191	17,040	18,165	19,353
	Enrollment	77,723	77,816	76,507	78,155	78,172	79,707	81,003
	%LEP	16.8%	17.8%	19.9%	20.7%	21.8%	22.8%	23.9%
	Bilingual/ESL	11,825	12,669	14,624	15,362	16,202	17,263	18,531
	%Bilingual/ESL	15.2%	16.3%	19.1%	19.7%	20.7%	21.7%	22.9%
Austin ISD/ Travis HS	LEP	249	305	362	355	374	332	343
Enrollment	1,689	1,694	1,655	1,704	1,619	1,647	1,555	
%LEP	14.7%	18.0%	21.9%	20.8%	23.1%	20.2%	22.1%	
Bilingual/ESL	199	215	291	304	337	313	320	
%Bilingual/ESL	11.8%	12.7%	17.6%	17.8%	20.8%	19.0%	20.6%	
Austin ISD/ Lanier HS	LEP	299	325	408	509	520	478	450
Enrollment	1,867	1,801	1,772	1,918	1,765	1,733	1,589	
%LEP	16.0%	18.0%	23.0%	26.5%	29.5%	27.6%	28.3%	
Bilingual/ESL	257	283	355	428	485	451	431	
%Bilingual/ESL	13.8%	15.7%	20.0%	22.3%	27.5%	26.0%	27.1%	

## 4.3 Analyzing Trends

What is the opportunity for school performance improvement resulting from improved English language proficiency overall. What are the opportunities for students resulting from school improvement by reducing the incidence of limited English proficiency? Updates or extensions to this document will examine how to specify, estimate, and use cause and effect models that will explain the jointly dependent behavior of limited English proficiency and student/school performance. By integrating policy and program variables in the model specification (such instruction and LEP mitigation programs), what-if scenarios can be examined that show the projected impact of "controllable" changes. One goal of the process would be to understand the results (school performance improvement in future years) of implementing certain types programs and policies.

## 5 Texas School District Performance Analysis Project

The Texas School District Performance Analysis Package (TXSDP), free of charge to education agencies and school districts, is an integrated geographic information system (GIS) and Texas school district demographics/performance database.

The ready-to-use package can be installed on Windows-based computers and analyze how school districts of interest are performing for different student groups. Designed to assist school districts in assessing “where they are” with regard to performance in regional and peer group settings, the tool provides a flexible and visually based analytical capability of value to any school district seeking to improve performance.

TXSDP is not just for low performing school districts. It is for any school district seeking to better understand how they are doing and identify ways to improve.

TXSDP makes use of 2005 and 2006 Texas Assessment of Knowledge and Skills (TAKS) performance data and blends these data with Census Bureau sourced data at the school district, census tract, and block group level of geography. By using the Proximity CommunityViewer GIS (<http://proximityone.com/cv.htm>), included as a part of the no fee package, the user can zoom-in to their district/region and view thematic maps of school district performance and identify performance gaps.

For more information see <http://proximityone.com/txsdp.htm>.

## 6 References and Resources

Resources related to topics covered in the document are summarized below.

Proximity School District Decision Making Information  
<http://proximityone.com/sddmi.htm>

School Improvement  
<http://proximityone.com/schoolimprovement.htm>

School District Mapping  
<http://proximityone.com/sdgeo.htm>

School District Community  
<http://proximityone.com/sdcommunity.htm>

School District Attendance Area Demographics  
<http://proximityone.com/aad.htm>

Conducting and Using a School District Census  
<http://proximityone.com/sdcensus.htm>

Impact of the Baby Boom on School Age Population  
<http://proximityone.com/cdtrends1.htm>

School District Demographic Trends  
<http://proximityone.com/sddtrends.htm>

School District Financial Analyst: Sources and Uses of Funds by District  
<http://proximityone.com/sdf.htm>

Proximity CommunityViewer Software  
<http://proximityone.com/cv.htm>

Using GIS for SocioEconomic Status Analysis  
<http://proximityone.com/sesgis.htm>

Proximity SDViewer (School District Viewer) Software  
SES and Challenge Factors <http://proximityone.com/sdviewerses.htm>  
Demographic Profiles <http://proximityone.com/sdviewerdp.htm>

State and Regional Decision Making Information  
<http://proximityone.com/sitemap.htm#srfocus>

NCLB Analysis  
<http://proximityone.com/nclbny.htm>

Relevant Children Not Enrolled in School  
<http://proximityone.com/hstnrcne1.htm>

Census 2000 Data Access & Use  
<http://proximityone.com/cen2000.htm>

Census 2000 School District Special Tabulation  
<http://proximityone.com/c2ksdst.htm>

## 7 About Proximity

**Mission:** Proximity provides decision making information resources to create and apply insights and works with clients to achieve results today that endure. Proximity is a leader in helping schools, education agencies, and stakeholder organizations achieve order-of-magnitude performance improvements, set new performance standards and reshape educational opportunities.

We provide decision making information solutions to achieve results-oriented improvements relating to strategy, organization, operations, systems, and technology. We develop and use tools, including software, data, and methodologies, to achieve these solutions.

Proximity is a private company with based in Alexandria, Virginia. Proximity was founded by Warren Glimpse, PhD econometrician, previously with the University of Missouri, U.S. Census Bureau, and U.S. Office of Federal Statistical Policy and Standards. Glimpse developed the Census Bureau State Data Center Program. He developed the Columbia, MO GBF/DIME that became the prototype for the Census Bureau TIGER System. He was architect of the first Federal statistical data access and use program.

**Our History.** Our history working with school district demographics started with the 1990 Census. Under sponsorship of the U.S. Department of Education, Glimpse developed the 1990 Census school district special tabulation, the most comprehensive and detailed demographic data on the characteristics of children and their living environment. A part of this program was our work to develop the first national scale school district boundary files for use in GIS and mapping applications.

Throughout the 1990's we worked with wide-ranging organizations to integrate the school district special tabulation data with other data. Glimpse was a principal architect for the Census 2000 school district special tabulation and developed Web-based data access tools now in use by the U.S. Department of Education.

**Demographic Analysis.** Proximity demographic analyses help clients better understand the demographic composition and trends for their situation – a school, a school district, regional education agency, Federal program operations, university researchers, and businesses. We integrate local data with national sourced data and develop projections using holistic models. Alternative scenario projections help clients anticipate change and the potential impact of change on their operations.

**Geospatial Solutions.** Proximity helps clients implement geospatial solutions to meet management and decision-making needs. We have developed a range of geographic information systems (GIS) tools to meet these needs including the CommunityViewer and SDViewer software. Geocoded student and school data are integrated with other infrastructure data and organized for visual analysis and viewing in the context of maps. Results include identification of patterns and relationships not otherwise available, compelling map views of key situations, and a collaborative basis for planning and evaluation.

**The Future.** Proximity's business is about the future. We help clients update and extend their knowledge to know more about what will change, when changes will occur, and the impact of change.