

SOUTHERN EDWARDS PLATEAU
Preliminary Population Growth Assumptions and Methodology
for the Habitat Conservation Plan

Population Assumptions

- Texas State Data Center (TSDC) prepares several population projection scenarios for Texas counties, based on different estimates of migration rates relative to observed population changes. For the 7 counties in the SEP-HCP Plan Area, Texas State Data Center's Migration Scenarios generally show conservative long-term growth rates.
- Wendell Davis & Associates (WDA) also uses ESRI Business Information Solutions (ESRI BIS) for demographics and short-term population projections. The ESRI BIS data estimate a 2.2% annual growth rate for the SEP-HCP Plan Area from 2000-2009 and project a 1.4% annual growth for 2010-2014.
- Although population growth drives housing and economic growth, it is the location of major employers, the housing market and the available of developable vacant land that determines the geographic distribution of the population.
- Population projections such as those provided by the TSDC establish the range of population growth by counties based on natural increase and migration and establish the overall demand for housing.
- Within limits, single family housing distribution follows geographic trends established in the recent and more distant past.
- Population can be allocated geographically based on analysis of the housing market and land use patterns in small areas, such as the sectors defined for this study.
- TSDC and ESRI Projection scenarios are used to establish a range of population growth, both numerically and rate of growth.
- Using the land use-based files from County Appraisal Districts (CADs) and population projections, WDA prepared population projections according to the following generalized steps:
 1. Estimated the number of single family housing units by sector for 2000 and 2009 based on the 2000 Census, ESRI estimates and Appraisal District parcel files.
 2. Projected demand for single family housing units to 2040 based on overall population projections (short-term from ESRI and a least-squares trend projection by WDA).
 3. Estimated the capacity of single family housing units for each sector based on the current number of units, assumed density of future single family units, single family acres as a percent of developed land and vacant available land.
 4. The initial annual demand for single family units by sector was projected for each sector without regard to the capacity of a sector to accommodate that demand.
 5. Next, the projected demand to 2040 was compared to the capacity of the sector and and "Excess Demand" number was calculated.
 6. Total single family housing demand then became fixed at the capacity of the sector in the year that unadjusted single family demand exceeded capacity.
 7. Excess demand was then assumed to *shift* along the path of growth to the next sector with available capacity and thus began to build out more of those sectors than was occurring based on the growth trend of that sector.

8. After these adjustments were made to the single family housing demand, the resulting numbers of single family units in each sector for 2020, 2030 and 2040 were applied to the land use allocation, growth and accounting model developed by WDA.
 9. After the projected number of single family units was applied to a given year (say 2030) then other factors are used to account for the relationships between single family growth, total housing, number of households and population for each sector.
 10. The results are summarized by sector and totaled for the region through a series of links to the land use model.
- The Southern Edwards Plateau Study Region currently has an estimated population of 1,001,966 in 371,982 households. The SEP Region excludes a large portion of Bexar County.

Human Demographics

- Summary table of race/ethnicity, age, income for 7 counties and Plan Area overall. Total population for the entire Plan Area is based on TSDC 2.0 growth scenario for Year 2000. Other data estimated by ESRI BIS.

	Region	Bandera	Bexar	Blanco	Comal	Kendall	Kerr	Medina
Population	1603715	17645	1392931	8418	78021	23743	43653	39304
Hispanic Origin	50.4%	13.5%	54.3%	15.3%	22.6%	17.9%	19.1%	45.5%
Black	6.4%	0.3%	7.2%	0.7%	0.9%	0.3%	1.8%	2.2%
Age 18 +	73.4%	78.1%	72.8%	77.7%	76.7%	75.8%	80.0%	73.2%
Age 65 +	1.5%	1.7%	1.4%	2.8%	2.1%	2.1%	4.3%	1.8%
Pop/HH	2.79	2.52	2.82	2.52	2.67	2.73	2.35	2.92
Households	671616	8359	570142	3696	42623	12368	19590	14838
Mean HH Income	\$50,556	\$47,219	\$50,217	\$46,991	\$58,723	\$63,313	\$43,080	\$44,346
Per Capita Income	\$23,498	\$22,489	\$22,402	\$22,359	\$26,669	\$29,023	\$23,630	\$17,915

Housing Projections

- Least squares best fit projections applied to housing growth tend to increase housing production to a point of getting out of hand, e.g. annual housing production rate more the *doubles* for the Region toward the middle of the planning horizon.
- Geometric projection models yield much higher results while averages represent something of a capacity of construction and absorption.
- The Region currently has 439,565 total housing units, including single family, apartments, manufactured homes and other housing types.
- Since 2000, the area has experienced an average increase of 14,558 total housing units annually.

Historical Growth & Development

- Growth projections for the Region are based in part on population projections and part on historical housing absorption rates for selected growth sectors among the 34 Sectors created for small area analysis.

Methodology

- Analyze trends in the housing market by small area shown as Sectors.
- Acquire and analyze demographic trends and characteristics for each County and each Sector.
- Prepare long-term housing projections by geographic sectors in the Region.
- When allocating the initial housing growth projections to Sectors, when any sector begins to build out during the planning period, begin allocating the unmet growth (demand) to adjacent sectors that are within the path of growth.
- Sequence allocations of single family growth first to existing and planned subdivisions and scattered vacant lots; then to platted and lots known to be in the platting process; to future lots designated within master planned subdivisions; and then to vacant land determined to be potential for single family development .
- Future growth over the next 30 years will be similar to that experienced in the area from 2000 to 2009.
- Considerations for location of *potential* single family residential on vacant land are as follow:
 - Character of surrounding land uses
 - Proximity to major street access
 - Proximity to schools and fire protection
 - Availability of community water service
 - Availability of community sewer collection
- Significant multi-family use is assumed to occur only within the growth sectors

Population and Housing Trends

	2000	2009	2020	2030	2040
SEP Study Region Population	746350	1001966	1575636	1861873	2191850
Households	284370	371982	556513	655071	771331
Total Housing Units	308547	439565	610191	715450	848344
Single Family Housing Units	198479	296361	398142	492604	583459