

URBAN POPULATION PATTERNS IN TEXAS: USING CENSUS DATA 2010

Purpose

- To locate selected towns established in various physical regions of Texas
- To identify the primary highways linking urban populations in Texas today
- To describe the urban population patterns in Texas by comparing 12 large population centers
- To draw conclusions about developing population patterns in Texas today

TEKS Standards

Grade 4 Social Studies

(6) Geography. The student uses geographic tools to collect, analyze, and interpret data. The student is expected to (B) translate geographic data, population distribution, and natural resources into a variety of formats such as graphs and maps.

(8) Geography. The student understands the location and patterns of settlement and the geographic factors that influence where people live. The student is expected to (B) describe and explain the location and distribution of various towns and cities in Texas, past and present; and (C) explain the geographic factors such as landforms and climate that influence patterns of settlement and the distribution of population in Texas, past and present.

Grade 7 Social Studies

(8) Geography. The student uses geographic tools to collect, analyze, and interpret data. The student is expected to (A) create and interpret thematic maps, graphs, charts, models, and databases representing various aspects of Texas during the 19th, 20th, and 21st centuries; and (B) analyze and interpret geographic distributions and patterns in Texas during the 19th, 20th, and 21st centuries.

(9) Geography. The student understands the location and characteristics of places and regions of Texas. The student is expected to (A) locate the Mountains and Basins, Great Plains, North Central Plains, and Coastal Plains regions and places of importance in Texas during the 19th, 20th, and 21st centuries such as major cities, rivers, natural and historic landmarks, political and cultural regions, and local points of interest; (B) compare places and regions of Texas in terms of physical and human characteristics.

(11) Geography. The student understands the characteristics, distribution, and migration of population in Texas in the 19th, 20th, and 21st centuries. The student is expected to (C) analyze the effects of the changing population distribution and growth in Texas during the 20th and 21st centuries and the additional need for education, health care, and transportation

Grade Levels: 4th – 7th

Class Time: 2 class periods

Materials: Giant Traveling Map of Texas, resource sheet: census data 2010, student recording sheets, Department of Transportation Highway Map, chains, vinyl spots

Instructional Background

Large cities in Texas are located in different regions of the state and are connected by a network of Interstate highways, US highways, and state highways. Locating the selected cities and looking for

patterns in the arrangement of these cities on the landscape engages students in critical thinking supported by data and communicated in both visual and written modes.

Student Learning Activity/Assessment

Population Patterns of the 12 largest cities/towns in Texas according to the 2010 Census.

1. Use a Texas Department of Transportation map to locate major interstate highways in Texas (IH-10, IH-20, IH-30, IH-35, IH-40, and IH-45). Use rope or chains from the resource materials to mark the locations.
2. Each group of students will focus attention on a particular set of major Texas cities and record data about the physical location. See resource information *Texas Cities _ Population 2010* to collect data on the following cities and record it on the graph *Data Recording Sheet #1 "Characteristics of Locations of Cities."* Each small group of students may focus on one set of cities and then share information with the total group to complete the chart.
3. When finished, groups will compare information with one another. They will find out what other cities share common characteristics with their own. Are there any patterns in the arrangement of the cities by location or by size? How does the arrangement of cities influence the decisions for building roads, establishing new schools, or providing human services across the state of Texas?
4. Next, students will locate the 2010 Census population data for each of the cities using the *Resource: Texas Cities _ Population Chart*. They will record the information from the table to the graph on *Data Recording Sheet #2: Using Charts and Graphs to Display Information*.
5. Finally, each group will propose a pattern they have found among the cities (i.e. the cities have less population the further west they are), citing evidence and receiving feedback from peers. *Student Pattern Analysis Sheet #3 – Writing paragraph to communicate thinking and Student Feedback Sheet #4 - Discussing points of view and drawing conclusions from evidence.*

Resource

Information: Texas Cities _ Population 2010



Houston



San Antonio



Dallas



Austin



Fort Worth



El Paso



Arlington



Corpus Christi

Houston	San Antonio	Dallas
Austin	Fort Worth	El Paso
Arlington	Corpus Christi	Plano
Laredo	Lubbock	Garland

Texas Cities Population 2010

The following is the list of Texas' most populous incorporated cities, towns, and unincorporated Census Designated Places (CDPs). The population is according to the 2014 census estimates.^[1] San Marcos was the fastest growing city in the state between 2010 and 2014.^q

Rank	Place name	2014 Estimate	2010 Census	Change
1	Houston ^[2]	2,239,558	2,100,263	6.63%
2	San Antonio	1,436,697	1,327,407	8.23%
3	Dallas	1,281,047	1,197,816	6.95%
4	Austin	912,791	790,390	15.49%
5	Fort Worth	812,238	741,206	9.58%
6	El Paso	679,036	649,121	4.61%
7	Arlington	383,204	365,438	4.86%
8	Corpus Christi	320,434	305,215	4.99%
9	Plano	278,480	259,841	7.17%
10	Laredo	252,309	236,091	6.87%
11	Lubbock	243,839	229,573	6.21%
12	Garland	235,501	226,876	3.80%
13	Irving	232,406	216,290	7.45%
14	Amarillo	197,254	190,695	3.44%
15	Grand Prairie	185,453	175,396	5.73%
16	Brownsville	183,046	175,023	4.58%
17	McKinney	156,767	131,117	19.56%
18	Pasadena	153,887	149,043	3.25%
19	Frisco	145,035	116,989	23.97%
20	Mesquite	144,416	139,824	3.28%
21	McAllen	140,717	130,242	10.80%
22	Killeen	138,154	127,921	8.00%
23	Waco	130,194	124,805	4.32%
24	Carrollton	128,353	119,097	7.77%
25	Denton	128,205	113,383	13.07%
26	Midland	128,037	111,147	15.20%
27	Abilene	120,958	117,063	3.33%
28	Beaumont	117,585	118,296	-0.60%
29	Odessa	114,597	99,940	14.67%
30	Round Rock	112,744	99,887	12.87%
31	The Woodlands (CDP) ^[3]	107,769	93,847	14.83%
32	Richardson	108,617	99,223	9.47%
33	Wichita Falls	105,114	104,553	0.54%
37	College Station	103,483	93,857	10.26%
36	Pearland	103,441	91,252	13.36%
34	Lewisville	102,889	95,290	7.97%
35	Tyler	101,421	96,500	4.67%

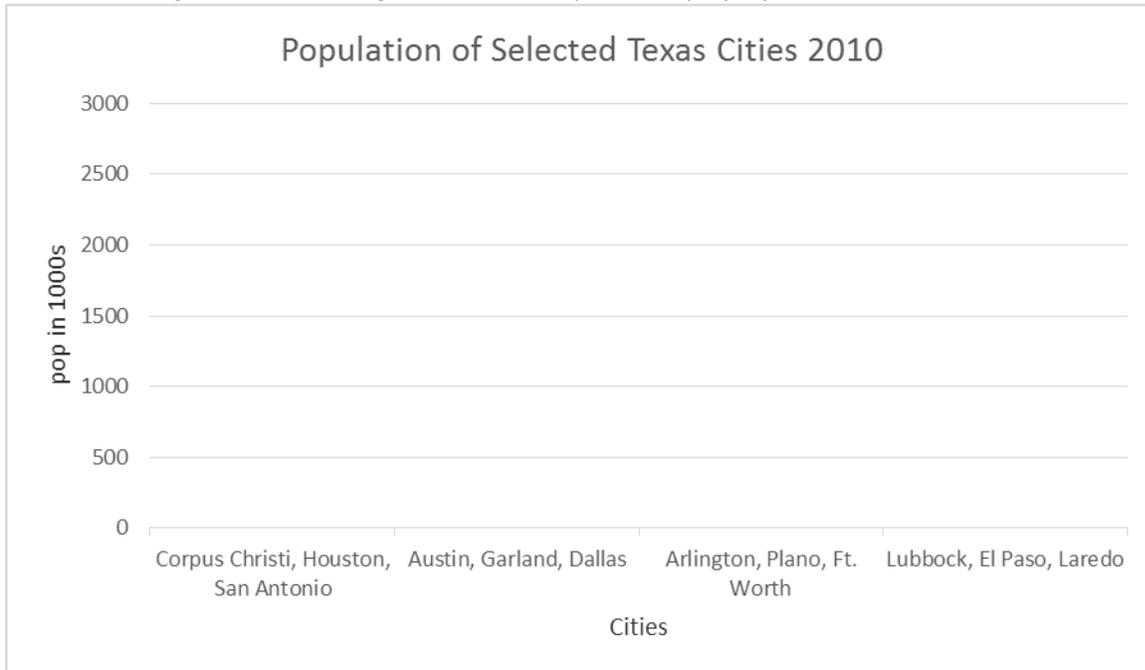
38	San Angelo	98,975	93,200	6.19%
39	League City	94,403	83,560	8.88%
40	Allen	94,179	84,246	11.79%
41	Sugar Land	86,777	78,817	10.10%
42	Edinburg	83,014	77,100	7.67%
43	Mission	82,431	77,058	6.97%
44	Longview	81,593	80,455	1.41%
45	Bryan	80,913	76,201	6.18%
46	Baytown	76,127	71,802	6.02%
47	Pharr	75,382	70,400	7.72%
48	Temple	70,765	66,102	7.05%
49	Missouri City	71,710	67,358	6.46%
50	Flower Mound	69,650	64,669	7.70%
51	North Richland Hills	68,529	63,343	8.19%
52	New Braunfels	66,394	57,740	14.99%
53	Victoria	66,094	62,592	5.59%
54	Atascocita (CDP)	65,844	65,844	0.00%
55	Harlingen	65,914	64,849	1.64%
56	Conroe	65,871	56,207	17.19%
57	Cedar Park	63,574	48,937	29.91%
58	Mansfield	62,246	56,368	10.43%
59	Georgetown	59,102	47,400	24.69%
60	San Marcos	58,892	44,894	31.18%
61	Rowlett	58,407	56,199	3.93%
62	Pflugerville	54,644	46,936	16.42%
63	Port Arthur	54,548	53,818	1.36%
64	Spring (CDP)	54,298	54,298	0.00%
65	Eules	53,224	51,277	3.80%
66	DeSoto	51,934	49,047	5.89%
67	Grapevine	50,844	46,334	9.73%

Name: _____

Data Recording Sheet #1 – Collecting data from maps

City	Region	Nearby Rivers/Bodies of Water	Nearby interstate highways	Other nearby population centers
Set A: Corpus Christi, Houston, San Antonio				
Set B: Austin, Garland, Dallas				
Set C: Arlington, Plano, Fort Worth				
Set D: Lubbock, Laredo, El Paso				

Data Recording Sheet #2 – Using Charts and Graphs to display information



Student Pattern Analysis Sheet #3

a) One spatial pattern about the cities that I see is _____

b) Three pieces of evidence that support the big idea of this pattern are listed here:

- 1)
- 2)
- 3)

c) A second spatial pattern about the cities that I see is _____

d) Three pieces of evidence that support the big idea of this pattern are listed here:

- 1)
- 2)
- 3)

Student Feedback Sheet #4

a) One easily understood pattern is explained by group # _____. The pattern is _____. Good evidence is _____

b) A pattern that shows creative thinking was explained by group # _____. The pattern is _____. Good evidence is _____

c) A pattern that I need to consider further was offered by group # _____. The pattern is _____. Additional evidence I need is _____.