

# Texas Land Trends

DATA EXPLORER USER GUIDE

[DATA.TXLANDTRENDS.ORG](http://DATA.TXLANDTRENDS.ORG)

# GETTING STARTED

The Data Explorer will open to the main page. Here, users can read about trends occurring statewide in addition to selecting links inserted throughout the text, which will launch results for specific areas of interest.

To begin exploration of data, users can either use the *Trends* option to view data for a specified area of interest (one or multiple counties, etc.), or select the *Compare* option to view data side-by-side for multiple areas of interest. These options are further explained on the following pages.

[data.txlandtrends.org](https://data.txlandtrends.org)

## Features:

- 1 **TX Land Trends logo:** Navigates back to main *Texas Land Trends* website.
- 2 **Home:** Navigates back to the Data Explorer main page.
- 3 **Trends:** Navigates to trends query page.
- 4 **Statewide Trends:** Shortcuts to statewide trend data.
- 5 **Compare:** Navigates to compare query page.
- 6 **About the Data:** Cites source data and terminology.
- 7 **User Guide:** Opens the Data Explorer User Guide.
- 8 **Toggle display:** Select  to change visibility of the left menu, expanding main screen.
- 9 **Help:** Select  to shows tips about different features unique to each page.
- 10 **Toggle display:** Select  to change color mode of the entire screen, from either dark or light mode.

These features will remain stationary throughout exploration of the website.

*Associated figure(s) on next page*



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# Texas Land Trends

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Texas working lands, or privately owned farms, ranches, and forests, are under increasing land conversion pressure driven by rapid population growth, suburbanization, and rural development, creating implications for rural economies. Here, we summarize land and demographic data related to Texas' changing working lands in four primary sections: population growth, land value, ownership size, and working lands. Findings from the 2019 report are compared to previous Texas Land Trends reports to assess current and historic land use trends.

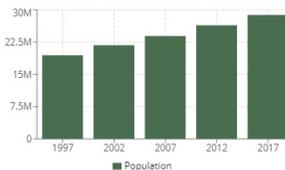
## The Fragmentation Process



### Population Growth

According to a 2017 U.S. Census Bureau study, Texas leads the nation in population growth with 7 of the 15 fastest growing cities in the U.S.

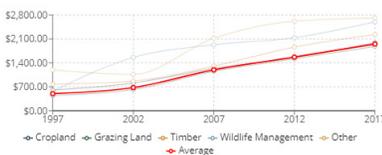
- Over the last 20-year period (from 1997 to 2017), Texas grew from 19M to 29M residents, an increase of 48% or about 470,000 new residents annually.
- From the Texas Land Trends data, the majority of the population increase (86% or 8M new residents) occurred within the state's top 25 highest total population growth counties.
- These counties account for only 10% of the total land area of the state, yet 74% of all Texans reside within these 25 counties.



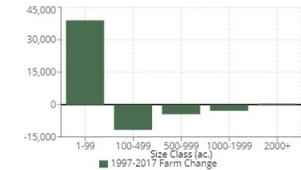
### Land Value

Historically, land market values served as a strong indicator of rural land demand. Like more traditional home real estate values, rural land market values vary by location, land use, property size, and other factors.

- On average, working lands experienced a 24% increase in land value since 2012 (\$1,569/acre), and a 291% increase over the 20-year period (\$499/acre in 1997).
- The I35 Corridor experienced the greatest absolute increase in land market value of any urban area at \$7,396/acre.



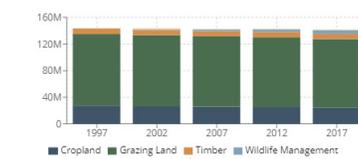
### Ownership Size



For both small and mid-sized ownership classes, ownership fragmentation continues to be closely related to proximity to major urban areas and/or transportation corridors. As urban centers grow in human population, the demand for surrounding rural land increases, raising land market values and subsequently increasing landowners' incentive to subdivide or sell their working lands for suburban/urban use. In contrast, consolidation of working lands may be driven by the ability of prospective buyers to capitalize on both land values and land availability, appearing to occur in certain regions of the state (e.g., High Plains and Rolling Plains Ecological Regions).

- Texas gained approximately 1,000 new working farms and ranches per year from 1997 to 2017, totaling greater than 248,000 ownerships in all.
- Small farms and ranches (tracts >100 acres in size) represent 58% of all ownerships, but only account for 4% of the land mass for all working lands.

### Working Lands



From 1997 to 2017, Texas lost approximately 2.2M acres of designated working lands, converted to non-agricultural uses, with a substantial conversion of nearly 1.2M acres in the last 5-year period.

- The annual land conversion rate within the top 25 highest growth counties over the 20-year period was about 60K acres per year (56% of total loss), compared to the remaining 229 county annual average of more than 46K acres per year (43% of total loss).
- Grazing lands have steadily decreased since 1997, losing and/or converting roughly 4.6M acres to other land uses for the 20-year period.
- Wildlife management acres have significantly increased in recent years, now totaling approximately 5.4M acres from about 94,000 in 1997.

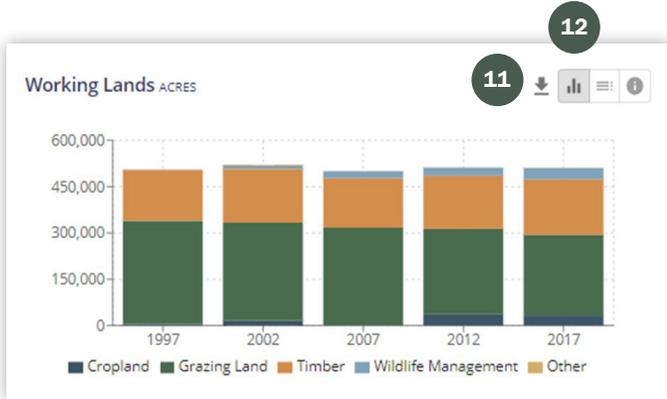
# TRENDS

Users can generate trend data for counties, ecoregions, river basins, or other pre-defined areas of interest. Multiple selections can be made within category groups before selecting "Go"; this will generate combined totals for trends in those areas selected.

Results for a user's query will be displayed in multiple forms (text, table, graph, image, and map), some of which include interactive features to further examine the data.

## Features:

- 11 **Download:** Select  to download charts.
- 12 **Chart:** Select  to view data as a chart.
- 13 **Table:** Select  to view data numbers in excel form.
- 14 **Information:** Select  to read additional information about the datasets and source.
- 15 **Interactive map:** Alter data displayed on map by selecting from dropdown options. Users can zoom into the map by double-clicking an area on the map or using a mouse scroll wheel.
- 16 **Map export:** Select  and follow prompts to export a PDF, PNG, or JPEG of the map.
- 17 **Map legend:** Select  to view map legend.



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### Working Lands MARKET VALUE (\$/AC)

[Download] [Bar Chart] [List] [Info]

Year	Cropland	Grazing Land	Other	Timber	Wildlife Management	Average
1997	\$676.15	\$617.02	\$876.36	\$574.14	\$462.81	\$603.80
2002	\$904.44	\$825.81	\$1,073.98	\$772.99	\$630.15	\$806.96
2007	\$1,324.57	\$1,183.56	\$1,411.08	\$1,122.57	\$979.52	\$1,155.64
2012	\$2,204.26	\$1,903.14	\$2,234.01	\$1,863.18	\$1,564.16	\$1,893.97
2017	\$2,280.60	\$1,963.96	\$2,182.13	\$1,937.15	\$1,666.05	\$1,952.60
Change	\$1,604.45	\$1,346.94	\$1,305.77	\$1,363.02	\$1,203.23	\$1,348.81

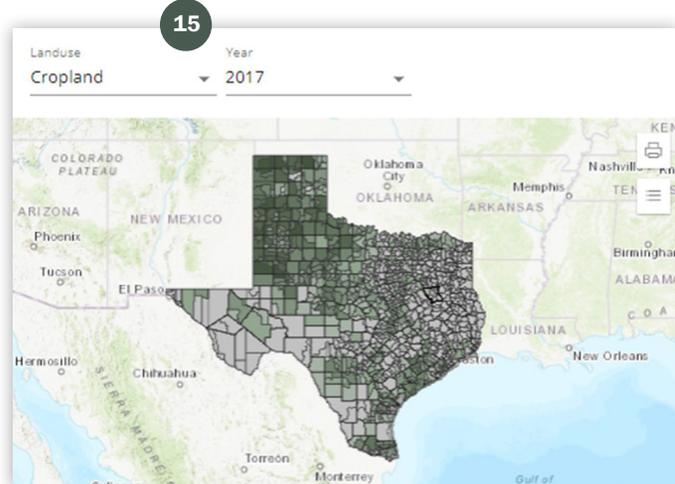
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### Ownership ACRES

[Download] [Bar Chart] [List] [Info]

The USDA NASS Census of Agriculture ownership data reports working lands as the number of farms and acres of farms by size class each census year (1997, 2002, 2007, 2012, and 2017) for every county in Texas. The Ag Census defines farms/ranches as any property from which \$1,000 or more of agricultural products were produced, sold, or normally would have been sold, during the census year.

[About the data](#)



# COMPARE

Users can generate trend data to compare counties, ecoregions, river basins, and pre-defined areas of interest in a side-by-side format for up to four areas of interest. Multiple selections can be made for each selection within category groups before selecting “Go”; this will generate combined totals for trends in those areas selected.

Results for a user’s query will be displayed in multiple forms (text, table, graph, image, and map), some of which include interactive features to further examine the data.

## Features:

- 18 **Delete selection:** Select  to delete a selected area of interest.
- 19 **Add area:** Select  to add another area of interest to the results query.

The *Compare* section has the same features as the *Trends* section.

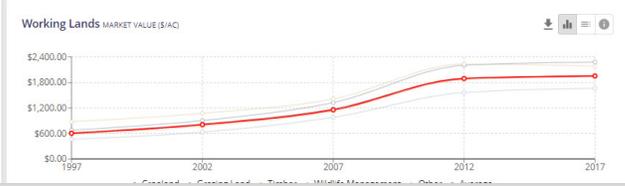
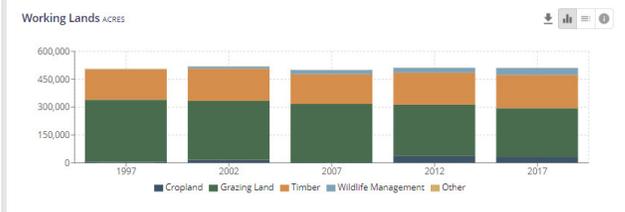


- [Home](#)
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Anderson County



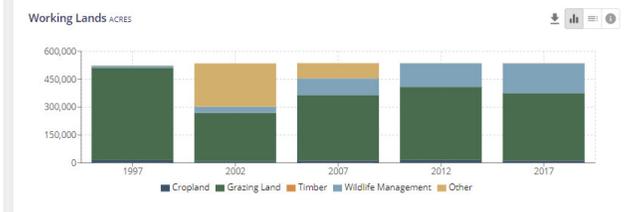
<b>WORKING LANDS CHANGE</b> <b>5,460 ac</b> ↑ 1.08% since 1997	<b>MARKET VALUE CHANGE</b> <b>\$1,348.81</b> ↑ 223.39% since 1997	<b>POPULATION CHANGE</b> <b>8,178</b> ↑ 15.45% since 1997
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Bandera County



<b>WORKING LANDS CHANGE</b> <b>13,786 ac</b> ↑ 2.64% since 1997	<b>MARKET VALUE CHANGE</b> <b>\$2,879.00</b> ↑ 336.06% since 1997	<b>POPULATION CHANGE</b> <b>9,127</b> ↑ 62.52% since 1997
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+ ADD AREA

# DATA DEFINITIONS

**Consolidation** - The combining of smaller farms, ranches, and forests to create larger ownerships.

**Cropland, Land Use Group** - Includes irrigated cropland and dry cropland as reported in acres by the Texas Comptroller of Public Accounts (Texas Comptroller) at the Independent School District (ISD) level.

**Ecoregion** - Gould's ecoregions for the state of Texas, denoted by areas of general similarity in ecosystems and type, quality, and quantity of environmental conditions and resources. Includes the Blackland Prairies, Coastal Sand Plains, Edwards Plateau, Gulf Coast Prairies, High Plains, Llano Uplift, Oak Woods and Prairies, Piney Woods, Rolling Plains, South Texas Brush Country, and Trans Pecos ecoregions.

**Fragmentation** - The break-up of large farms, ranches, and forests into smaller ownership sizes.

**Grazing Land, Land Use Group** - Includes native rangeland, non-native pasture, and barren lands as

reported in acres by the land use data from the Texas Comptroller at the ISD level.

**Land Use** - Annual compilation of land use and land value data from the Texas Comptroller. Includes property use, tax, and value data for private lands designated as 1-d and 1-d-1 appraisal status for all Texas ISDs. Land use categories include cropland, grazing land, wildlife management, timber, and other.

**Land Use, Acres** - The number of acres that fall into each specified land use category as reported by the Texas Comptroller.

**Land Use, Market Value Per Acre** - The average appraised value of land, calculated as \$ per acre, as reported by the Property Tax Assistance Division of the Texas Comptroller.

**Land Use, Market Value Change (\$/ac.)** - Change in market value per acre, from 1997 to 2017. Also includes percent change from the same time period.

# DATA DEFINITIONS

**Ownership, Acres** – Number of acres of farms by ownership size class (e.g., There were 44,326 farm acres in the 1 to 99 acres size class reported for Anderson County in 2017). Derived from county level ownership size data as reported by the USDA, NASS.

**Ownership, Farm** – Number of farms by ownership size class (e.g., There were 1,043 farms in the 1 to 99 acres size class reported for Anderson County in 2017). Derived from county level ownership size data as reported by the USDA, NASS.

**Ownership, Acre Count Change** – Change in the number of acres of farms by ownership size class from 1997 to 2017.

**Ownership, Farm Count Change** – Change in the number of farms by ownership size class from 1997 to 2017.

**Other, Land Use Group** – Includes orchards and other agricultural lands as reported in acres by the Texas Comptroller at the ISD level.

**Population** – County level population data (individuals per county) compiled by the Texas Department of State Health Services using Census Population and Intercensal Estimates Data.

**Population Change** – Change in population by county from 1997 to 2017. Also includes percent change from the same time period.

**Region of Interest** – Includes pre-selected counties for particular regions of interest across the state including:

- **I-35** – Counties surrounding Interstate 35 from San Antonio to Austin: Bexar, Comal, Hays, Kendall, Travis, Williamson Counties.
- **Coastal** – All counties with Gulf of Mexico coastline: Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Harris, Jackson, Jefferson, Kenedy, Kleberg, Matagorda, Nueces, Orange, Refugio, San Patricio, Victoria, Willacy Counties.

# DATA DEFINITIONS

## **Region of Interest** - *continued*

- **Hill Country** - Counties designated as part of the Hill Country by the Hill Country Alliance: Bandera, Bexar, Blanco, Burnet, Comal, Edwards, Gillespie, Hays, Kendall, Kerr, Kimble, Llano, Mason, Medina, Real, Travis, Uvalde Counties.
- **DFW** - Tarrant/Dallas counties and adjacent counties making up the Dallas/Fort Worth metropolitan area: Collin, Dallas, Denton, Ellis, Hood, Johnson, Kaufman, Parker, Rockwall, Tarrant, Wise Counties.
- **Houston** - Harris County and adjacent counties making up the greater Houston metropolitan area: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, Waller Counties.
- **Rio** - Hidalgo and Cameron counties.

**River Basin** - Derived from the United States Geological Survey by the Texas Water Development Board. This dataset represents the boundaries for Texas river basins,

including the Brazos, Brazos-Colorado, Canadian, Colorado, Colorado-Lavaca, Cypress, Guadalupe, Lavaca, Lavaca-Guadalupe, Neches, Neches-Trinity, Nueces, Nueces-Rio Grande, Red, Rio Grande, Sabine, San Antonio, San Antonio-Nueces, San Jacinto, San Jacinto-Brazos, Sulphur, Trinity, and Trinity-San Jacinto rivers.

**Timber, Land Use Group** - Includes timber, timber '78, timber in transition, and restricted timber lands as reported in acres by the Texas Comptroller at the ISD level.

**Wildlife Management, Land Use Group** - Includes wildlife management lands as reported in acres by the Texas Comptroller at the ISD level.

# DATA DEFINITIONS

**Working Lands** – Privately owned farms, ranches, and forests that produce food and fiber, support rural economies, and provide wildlife habitat, clean air and water, and recreational opportunities. Includes all cropland (irrigated and dry), grazing land (native rangeland, non-native pasture, and barren), timber land (timber, timber '78, timber in transition, and restricted timber), and other (orchards and other) agricultural lands collected and compiled from the Texas Comptroller.

**Working Lands Change** – Change in total acres of Working Lands (as reported by the Texas Comptroller) from 1997 to 2017. Also includes percent change from the same time period.

## Data Sources:

### **United States Department of Agriculture**

National Agricultural Statistics Service Survey Data (USDA, NASS; 1997, 2002, 2007, 2012, 2017).

Retrieved from: [quickstats.nass.usda.gov](http://quickstats.nass.usda.gov).

- Ownership Size data – collected at the county level

### **Texas Department of State Health Services**

Census Population and Intercensal Estimates Data (1997, 2002, 2007, 2012, 2017).

Retrieved from: [dshs.state.tx.us/chs/popdat](http://dshs.state.tx.us/chs/popdat).

- Population data – collected at the county level

### **Texas Comptroller of Public Accounts**

Property Tax/Value Data. Location: Property Tax Assistance Division (1997, 2002, 2007, 2012, 2017).

Retrieved from: [comptroller.texas.gov](http://comptroller.texas.gov).

- Working Lands data – collected at the ISD level
- Market and Productivity Value data – collected at the ISD level

# Texas Land Trends



## CONTACT US

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