Granbury Association of Realtors®
Commercial Committee Breakfast
April 18, 2019

Texas Economy and Housing
Outlook 2019

Dr. James P. Gaines
Chief Economist

recenter.tamu.edu
2018 A Very Good Year - 2019 Definite Slowdown

- Real GDP growth 2018 2.9%+ 2019 ~2.5%
- Jobs expanded ~1.5%  Unemployment rate ~4.0%+
- Interest rates up/down during the year;
- Inflation approached 2.5%
- Tax Cuts added positive impacts
- Industrial Production high but less labor
- Income and spending growing
  - Real Disposable Personal Income +2.9% thru 3Q18
  - Real PCE +2.6% thru 3Q18
- Housing improving, not fully recovered; recent stalling
- U.S. became #1 oil producer and net exporter
Consumer Confidence Index

Source: The Conference Board (1985=100; NSA); Haver Analytics
Fed Funds Rate, 10-Year Treasury, 30-Year FMR

Source: Haver Analytics; FHLMC; St. Louis FED; Real Estate Center at Texas A&M University
Fed Funds Rate, 10-Year Treasury, 30-Year FMR & Inflation

Source: Haver Analytics; FHLMC; St. Louis FED; Real Estate Center at Texas A&M University
Texas Economy

2015-2016 Oil Decline; Down Years

2017 Recovery – A Good Year

2018: Better than 2017

2019 Some Headwinds, but Not Bad
2018 a Very Good Year Economically For Texas

• Rebound from Harvey going strong but not over
• State GDP +3.7% (3Q18) [estimate ~4.5% 2018]
• Personal Income +5.3% vs. 4.5% nationally
• Oil Prices >$70 until 4Q – dropped then rebounded
• Jobs increased 276,100 +2.3%
• Population increased 379,128 to 28,701,845
  • 190,951 natural increase (50.3%)
  • 104,976 foreign immigration (27.7%)
  • 82,569 domestic immigration (22%)
Texas Economic Outlook: 2019
Positive but Slower Growth Than 2018

- U.S. Economy stays relatively strong
- Employment: ~1.5% - 2.0% from 2.3% in 2018 (revised)
- GDP: 3.5% 2019 from ~4.5% 2018
- Energy sector neutral; oil prices $40-$60/bl.
- Population expansion continues but at slower pace
- Exports doing well and contributing to economy – trade agreements and value of dollar add uncertainty
- Retail Sales steady but not significantly higher
Texas’ Leading Economic Index

A composite of 8 leading indicators: 1) value of the dollar, 2) U.S. leading economic index, 3) real oil price, 4) well permits, 5) initial claims for unemployment insurance, 6) Texas stock index, 7) help-wanted index, and 8) average weekly hours worked in manufacturing.

Source: Federal Reserve Bank of Dallas, 1987=100
Weekly Active Texas Rig Count & Price of WTI

Rig Count (left)

WTI $/bl. (right)

Rig Count up 318, +184% since May 2016

11/21/2014, 906

6/27/2014, $106.69

2/12/2016, $28.14

5/20/2016, 173

Source: Baker Hughes; EIA; RE Center at Texas A&M University
Current and Futures Monthly Average Price of WTI

Average Monthly Price

Sources: EIA; Haver Analytics; Real Estate Center at Texas A&M University
Futures contracts for Midland and Cushing crudes show the market expects their prices to stay in the mid-$50 range through the end of 2019.*

*Permian Basin Economic Indicators, Dallas Federal Reserve Bank, March 22, 2019*
Monthly Texas Oil Production & Price of WTI

Thousands of Barrels per Day

Source: EIA; RE Center at Texas A&M University
Texas Annual Jobs

2014-2018 +1,262,200 jobs; average 252,440/year

Sources: Texas Workforce Commission, Real Estate Center at Texas A&M University

2015 +2.4%
2016 +1.2%
2017 +1.8%
2018 +2.3%
2019p ~2.0%
Monthly Change in Total Nonfarm Employment Texas

Average of ~21,900 jobs per month since January 2011

Sources: TWC; Haver Analytics; Real Estate Center at Texas A&M University
# Texas Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Jobs, NSA (Dec-Dec)</th>
<th>Population (July-July)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>216,200</td>
<td>439,887</td>
</tr>
<tr>
<td>2011</td>
<td>236,200</td>
<td>402,776</td>
</tr>
<tr>
<td>2012</td>
<td>373,300</td>
<td>433,903</td>
</tr>
<tr>
<td>2013</td>
<td>300,800</td>
<td>400,952</td>
</tr>
<tr>
<td>2014</td>
<td>420,900</td>
<td>475,157</td>
</tr>
<tr>
<td>2015</td>
<td>151,800</td>
<td>500,444</td>
</tr>
<tr>
<td>2016</td>
<td>150,000</td>
<td>449,982</td>
</tr>
<tr>
<td>2017</td>
<td>253,900</td>
<td>399,734</td>
</tr>
<tr>
<td>2018</td>
<td>276,100</td>
<td>379,128</td>
</tr>
</tbody>
</table>

2010-2018
+3,881,963 people
+2,379,200 jobs

Sources: US Census Bureau; Texas Workforce Commission; Real Estate Center at Texas A&M University
Granbury/Hood County Economic Outlook
Texas Major MSAs Employment Growth 2017, 2018 & 2019

<table>
<thead>
<tr>
<th>City</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin</td>
<td>3.2</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>Dallas</td>
<td>2.8</td>
<td>2.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Fort Worth</td>
<td>2.3</td>
<td>2.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Houston</td>
<td>2.2</td>
<td>2.2</td>
<td>1.0</td>
</tr>
<tr>
<td>San Antonio</td>
<td>2.3</td>
<td>2.0</td>
<td>1.6</td>
</tr>
<tr>
<td>Texas</td>
<td>1.8</td>
<td>1.4</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Sources: TWC; Real Estate Center at Texas A&M University
Hood County Annual Employment

Sources: Haver Analytics; Real Estate Center at Texas A&M University
Hood County Monthly Employment & Unemployment Rate

Sources: Haver Analytics; Real Estate Center at Texas A&M University
Texas Demographics
Estimated Population Change, Texas Counties, 2010 to 2017

-2,139 - 0
1 - 1,000
1,001 - 20,000
20,001 - 100,000
100,001 - 560,521

91 counties lost population over the 7 year period.

87% E of I-35

67% in Urban Triangle

Source: U.S. Census Bureau, 2017 Vintage Population Estimates; Texas State Demographer’s Office
From 1970 to 2010 (40 years), Texas added 13.9 million people.

From 2010 to 2050 (40 years), Texas will probably add ~17-30 million people.

Sources: U.S. Census Bureau; Texas State Demographer’s Office 2018 Projection & 2000-2010 Scenario; Real Estate Center at Texas A&M University
Projected Population Change, Texas Counties, 2010-2050

-6,200 - 0
1 - 2,000
2,001 - 10,000
10,001 - 100,000
100,001 - 1,000,000
1,000,001 - 3,480,000

Legend

Source: Texas State Data Center 2012 Population Projections. 2000-2010 Migration Scenario
FW-A Population
FW-A MD: Johnson, Parker, Tarrant & Wise Counties

2000-2010 +110%, ~2,359,000

2018 + 73%, ~1,558,000

Sources: U.S. Census Bureau; Texas State Demographer’s Office 2018 Projection & 2000-2010 Scenario; Real Estate Center Texas A&M University
Hood & Somervell Counties Population

2010-2050 31,040; 61% increase

Sources: U.S. Census Bureau; Texas State Demographer's Office 2018 Projection; Real Estate Center at Texas A&M University
Texas Housing Market
2018 A Solid Year For Housing Around the State

- **Total Housing Activity: 2018 vs. 2017**
  - **Sales** +1.7%  343,833 vs. 336,502  $97.7B vs. $92.4B
  - **Listings** +1.4%  101,603 vs. 100,664
  - **DoM** 58 vs. 57
  - **MOI** 3.4 vs. 3.1
  - **Average Price** +3.7%  $284,173 vs. $274,580
  - **Median Price** +4.5%  $233,000 vs. $223,990
  - **Md. Price/sq. ft.** +5%  $116.37 vs. $110.55
  - **Avg. Price/sq. ft.** +4.3%  $128 vs. $122

Source: TAR Data Relevance Program; Real Estate Center at Texas A&M University
2018 A Solid Year For New Housing Around the State

- **New Home Construction** lead the nation
  - State 168,500 total starts, ~122k SF  ~47k MF
  - DFW 57.9K (35.1k SF, 22.8k MF); Houston 50.8k (41.3k SF, 9.5k MF)

- **New Home Sales** stayed strong
  - New home sales +8.1%
  - DoM 93
  - MOI 5.1
  - Average price -0.4%
  - Median price +0.2%
  - Price/sq. ft. +2.9%
## 2018 Percent Changes in Key Housing Measures

<table>
<thead>
<tr>
<th></th>
<th>Sales</th>
<th>Average Price</th>
<th>Median Price</th>
<th>Months Inventory</th>
<th>Median Price/sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>1.7%</td>
<td>3.7%</td>
<td>4.5%</td>
<td>9.8%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Austin</td>
<td>1.4%</td>
<td>4.2%</td>
<td>3.9%</td>
<td>9.7%</td>
<td>3.9%</td>
</tr>
<tr>
<td>DFW</td>
<td>-2.4%</td>
<td>4.1%</td>
<td>3.9%</td>
<td>19.7%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Houston</td>
<td>3.4%</td>
<td>2.7%</td>
<td>3.1%</td>
<td>13.5%</td>
<td>4.2%</td>
</tr>
<tr>
<td>San Antonio</td>
<td>2.9%</td>
<td>4.2%</td>
<td>5.2%</td>
<td>8.0%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

Source: TAR Data Relevance Program; Real Estate Center at Texas A&M University
2019 Home Market Slowdown

Factors that may create a drag on home-buying demand

- Limited inventory availability
- Higher prices - affordability
- Increasing interest rates
- Concerns about general economy – fear of recession or jobs
- Stock market volatility
- Negative press coming off record year(s)
March 2019 Residential Sales Slowed Down; Price/Sq. Ft. Still Up

Sales 0.7% YTD

Source: TR Data Relevance Program; Real Estate Center at Texas A&M University
Annual Texas Home Sales & Prices

2018
Sales 1.7% Prices ~4%
2019p
Sales ~1%, Prices ~3.5%

2010-2018
Sales +64%, Average Price +49%, Median Price +59%
Texas Home Sales per 1,000 Households

Source: TAR Data Relevance Program; US Census Bureau; Real Estate Center at Texas A&M University

1990-2000 Average 20.8

2001-2017 Average 30.6
Texas Median Home Prices Continue to Climb

2017 +6.2%;
2018 +4.5%
2019p +3.5%
2012-2018p +49%
Texas Median HH Income & Median Home Price Indexed to 1989

1989 Median Price = 2.65 x Median HH Income
2017 Median Price = 3.76 x Median HH Income

Median Home Price +226%
Nominal HH Income +129%
2017 Adjusted HH Income +20%

Sources: U.S. Census Bureau; Haver Analytics; Real Estate Center at Texas A&M University
Texas SF Building Permits

1995-2017 average
104,854/year

2015 +2.3%
2016 +1.0%
2017 +9.6%
2018e +6%
2019p +3%

Source: US Census Bureau; NAHB; Real Estate Center at Texas A&M
Texas MF Building Permits

1995-2016 average 45,444/year
2017 -1.7%; 2018p -3%

Source: US Census Bureau, Real Estate Center at Texas A&M
Texas Residential Construction Leading and Coincident Indexes

Jan 2000=100

Source: Real Estate Center at Texas A&M University
Hood County Housing Market
Annual Hood County Home Sales & Prices

2018 sales -5.2%, prices +9.0%
2019p sales ~1.0%, Prices ~4.5%

Source: Temple-Belton BoR; Real Estate Center at Texas A&M University
Hood County 2018 Sales and Months Inventory by Price

2018 Sales

<table>
<thead>
<tr>
<th>Price Range</th>
<th>Quantity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $69,999</td>
<td>62</td>
<td>4.4%</td>
</tr>
<tr>
<td>$70,000 - $99,999</td>
<td>71</td>
<td>5.0%</td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>131</td>
<td>9.3%</td>
</tr>
<tr>
<td>$150,000 - $199,999</td>
<td>239</td>
<td>20.1%</td>
</tr>
<tr>
<td>$200,000 - $249,999</td>
<td>191</td>
<td>16.9%</td>
</tr>
<tr>
<td>$250,000 - $299,999</td>
<td>229</td>
<td>16.2%</td>
</tr>
<tr>
<td>$300,000 - $399,999</td>
<td>116</td>
<td>8.2%</td>
</tr>
<tr>
<td>$400,000 - $499,999</td>
<td>70</td>
<td>4.9%</td>
</tr>
<tr>
<td>$500,000 - $749,999</td>
<td>0.7%</td>
<td>10</td>
</tr>
<tr>
<td>$750,000 - $999,999</td>
<td>0.8%</td>
<td>12</td>
</tr>
<tr>
<td>$1,000,000 +</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Current Mos. Inventory

<table>
<thead>
<tr>
<th>Price Range</th>
<th>Quantity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $69,999</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>$70,000 - $99,999</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>$100,000 - $149,999</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>$150,000 - $199,999</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>$200,000 - $249,999</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>$250,000 - $299,999</td>
<td>3.0</td>
<td></td>
</tr>
<tr>
<td>$300,000 - $399,999</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>$400,000 - $499,999</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>$500,000 - $749,999</td>
<td>4.1</td>
<td></td>
</tr>
<tr>
<td>$750,000 - $999,999</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>$1,000,000 +</td>
<td>9.0</td>
<td></td>
</tr>
</tbody>
</table>

About 67% of sales in $150k to $400k range

Source: Temple-Belton BoR; Real Estate Center at Texas A&M University

Sales & Prices by Zip Code

Residential** Closed Sales YoY Percentage Change

Granbury
Decordova
Pecan Plantation

2.9 Months Inventory

Residential** Avg Close Price Per SqFt YoY Percentage Change

Granbury
Decordova
Pecan Plantation

Price/sf +10.7% YTD
Median +10.2% YTD

Sales -0.7% YTD
Existing -8.4%
New +36.7%

Source: Temple-Belton BoR; Real Estate Center at Texas A&M University
Hood County Housing Report

Median price $238,600
Up 10.2%
Compared to same quarter last year

2018 Q1 Price Distribution

<table>
<thead>
<tr>
<th>Price Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - $99,999</td>
<td>8.8%</td>
</tr>
<tr>
<td>$100,000 - $199,999</td>
<td>29.2%</td>
</tr>
<tr>
<td>$200,000 - $299,999</td>
<td>32.8%</td>
</tr>
<tr>
<td>$300,000 - $399,999</td>
<td>13.7%</td>
</tr>
<tr>
<td>$400,000 - $499,999</td>
<td>8.5%</td>
</tr>
<tr>
<td>$500,000 - $749,999</td>
<td>5.3%</td>
</tr>
<tr>
<td>$750,000 - $999,999</td>
<td>0.7%</td>
</tr>
<tr>
<td>$1,000,000+</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Active listings
Up 11.1%
340 in 2019 Q1

Closed sales
Down 0.7%
285 in 2019 Q1

Days on market
- Days on market 45
- Days to close 31
Total 76
6 days less than 2018 Q1

Months of inventory
2.9
Compared to 2.5 in 2018 Q1

About the data used in this report:
Data used in this report come from the Texas REALTOR® Data Relevance Project, a partnership among the Texas Association of REALTORS® and local REALTOR® associations throughout the state. Analysis is provided through a research agreement with the Real Estate Center at Texas A&M University.
Market Statistics for 2019 Q1 - Hood County

- **Median Price**: $238,600 (▲ 10.2% YoY)
- **Closed Sales**: 285 (▼ -0.7% YoY)
- **Active Listings**: 340 (▲ 11.1% YoY)
- **Days on Market**: 45 (4 days less than 2018 Q1)
- **Days to Close**: 31 (2 days less than 2018 Q1)
- **Months Inventory**: 2.9 (Compared to 2.5 in 2018 Q1)

Price Distribution for 2019 Q1 - Hood County

- <$100K: 8.8%
- $100-200K: 29.2%
- $200-300K: 32.8%
- $300-400K: 13.7%
- $400-500K: 8.5%
- $500-700K: 5.3%
- $700K-1M: 0.7%
- $1M+: 1.1%

Sales & Median Price in Hood County

Top 5 Zip Codes (Association-wide)

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Median Price</th>
<th>Median Price Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>76077</td>
<td>$505,000</td>
<td>▲ 9.4%</td>
</tr>
<tr>
<td>76035</td>
<td>$387,500</td>
<td>▲ 6.3%</td>
</tr>
<tr>
<td>76462</td>
<td>$347,000</td>
<td>▲ 5.0%</td>
</tr>
<tr>
<td>76476</td>
<td>$323,500</td>
<td>▲ 3.3%</td>
</tr>
<tr>
<td>76044</td>
<td>$309,900</td>
<td>▲ 3.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Active Listings</th>
<th>Fewest Days on Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>76033</td>
<td>183</td>
<td>76033: 38</td>
</tr>
<tr>
<td>76049</td>
<td>173</td>
<td>76049: 45</td>
</tr>
<tr>
<td>76048</td>
<td>144</td>
<td>76048: 46</td>
</tr>
<tr>
<td>76401</td>
<td>100</td>
<td>76048: 46</td>
</tr>
<tr>
<td>76033</td>
<td>83</td>
<td>76033: 38</td>
</tr>
</tbody>
</table>
Hood County SF Permits

2017 Last Year We Have Data

Source: US Census Bureau; Real Estate Center at Texas A&M University
Fort Worth Prairie LMA 23
Johnson, Hood, Parker, Tarrant, Palo Pinto, Somervell & Wise Counties

Source: Real Estate Center at Texas A&M University
Rural Land Prices per Acre: Land Market Area 23

Since 2010: +64% average +9% per year

Source: Real Estate Center at Texas A&M University
Longer-Term Outlook

- **Population** Growth Continues to Outpace U.S.; Concentrated in Urban Triangle
- **Infrastructure** Trying to Keep Up with Growth: roads, water/sewer, utilities, schools
  - Water West of I-35 Major Limiting Factor for Growth
- **Infrastructure Financing** higher rates; bond market competition for capital; private vs. public financing; taxes
- **Land** and land resources & government regulatory actions
- **Money** Capital & Money Markets: debt, inflation and interest rates