

Finding Affordable Shelter

Federal Reserve Bank of Dallas & Real Estate Center at Texas A&M University
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Assessing Texas' Affordable Housing Market

Dr. James P. Gaines

Chief Economist

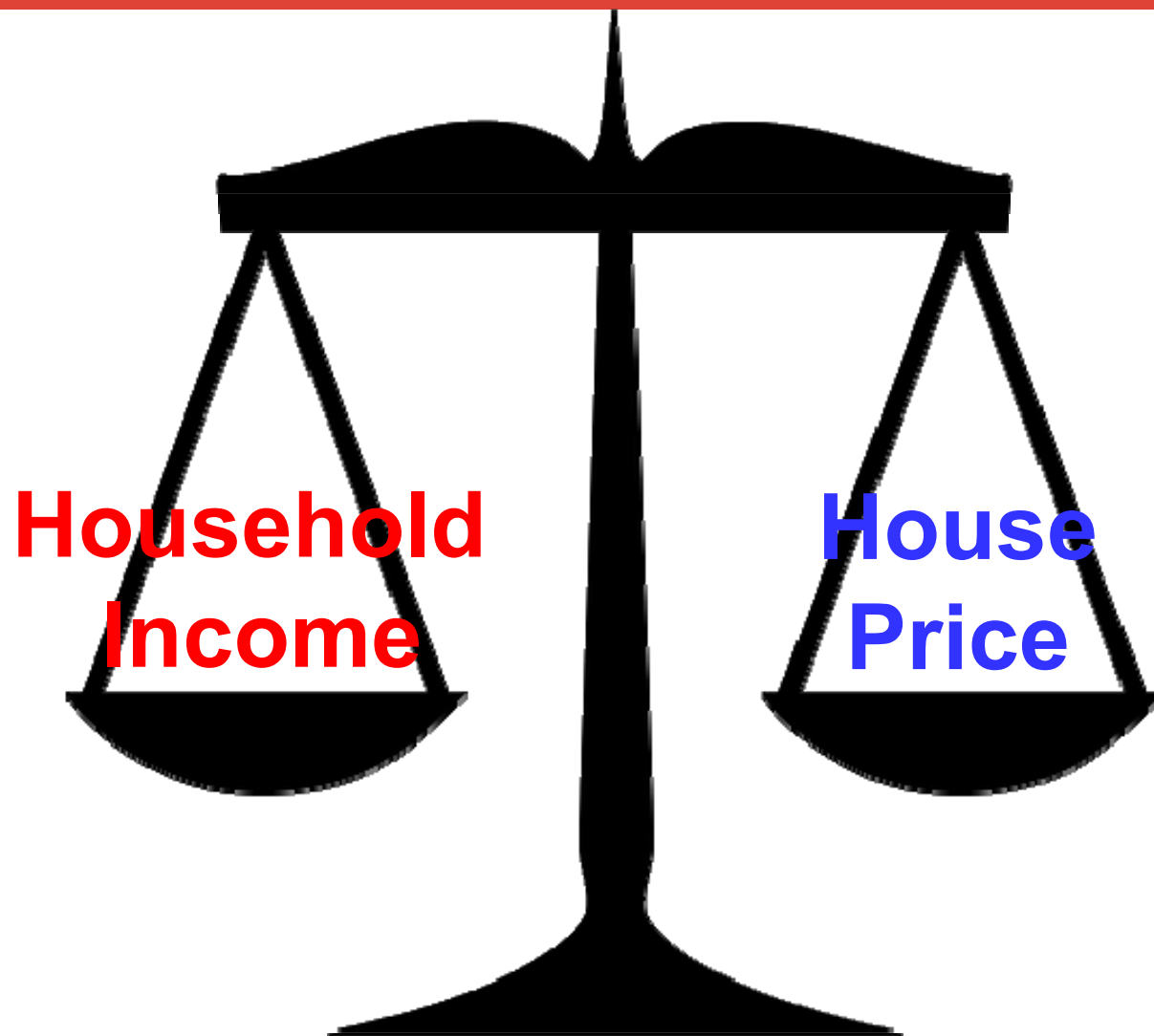


REAL ESTATE CENTER
TEXAS A & M UNIVERSITY
MAYS BUSINESS SCHOOL

Macro Housing Issues

1. **Affordability**: the main challenge for the next several years (decades?); income growth vs. price changes
2. **Demographics**: generational life cycles; shifting tastes, preferences, attitudes & desires
3. **Capital Flows & Lending Requirements**: equity requirements; interest rates and monetary/fiscal policies
4. **Infrastructure**: transportation, education, utilities, water
5. **Development**: Design, Density, Resources and Processes
6. **Regulatory**: lending; environmental; land use controls
Federal
State
Local

Affordability: Income to Price Balance



**Affordability:
How much down
and how much per
month?**

Future of Housing & Affordability: Supply & Demand

Demand Side

- **Income growth relative to home price changes**
- **Demographics and shifts in housing attitudes & preferences**
- **Mortgage availability: currently a demand constraint**
 - Underwriting and risk rating: ease of credit & terms
 - Interest rates
- **Effective buyer education**

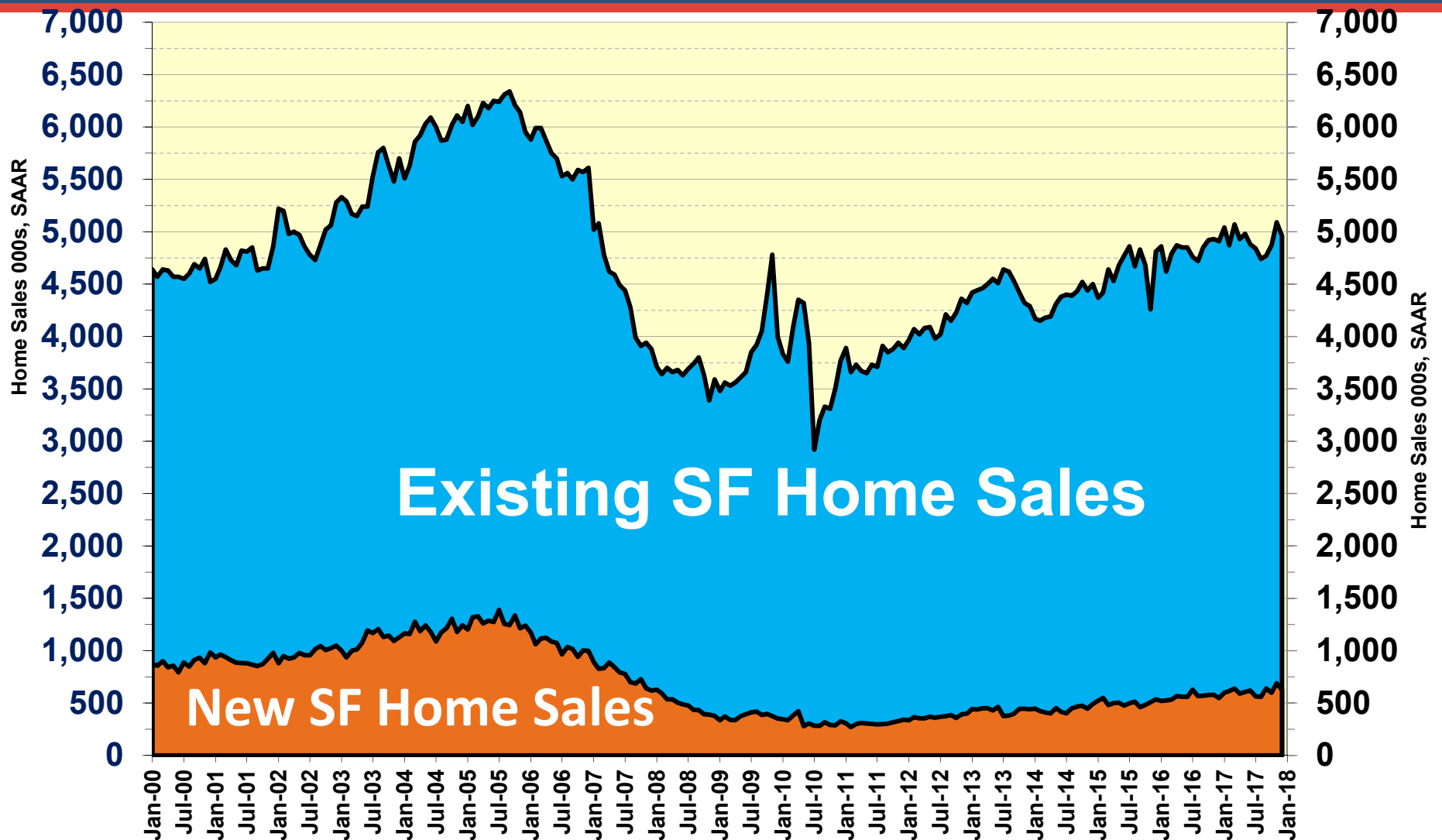
Future of Housing & Affordability: Supply & Demand

Supply Side

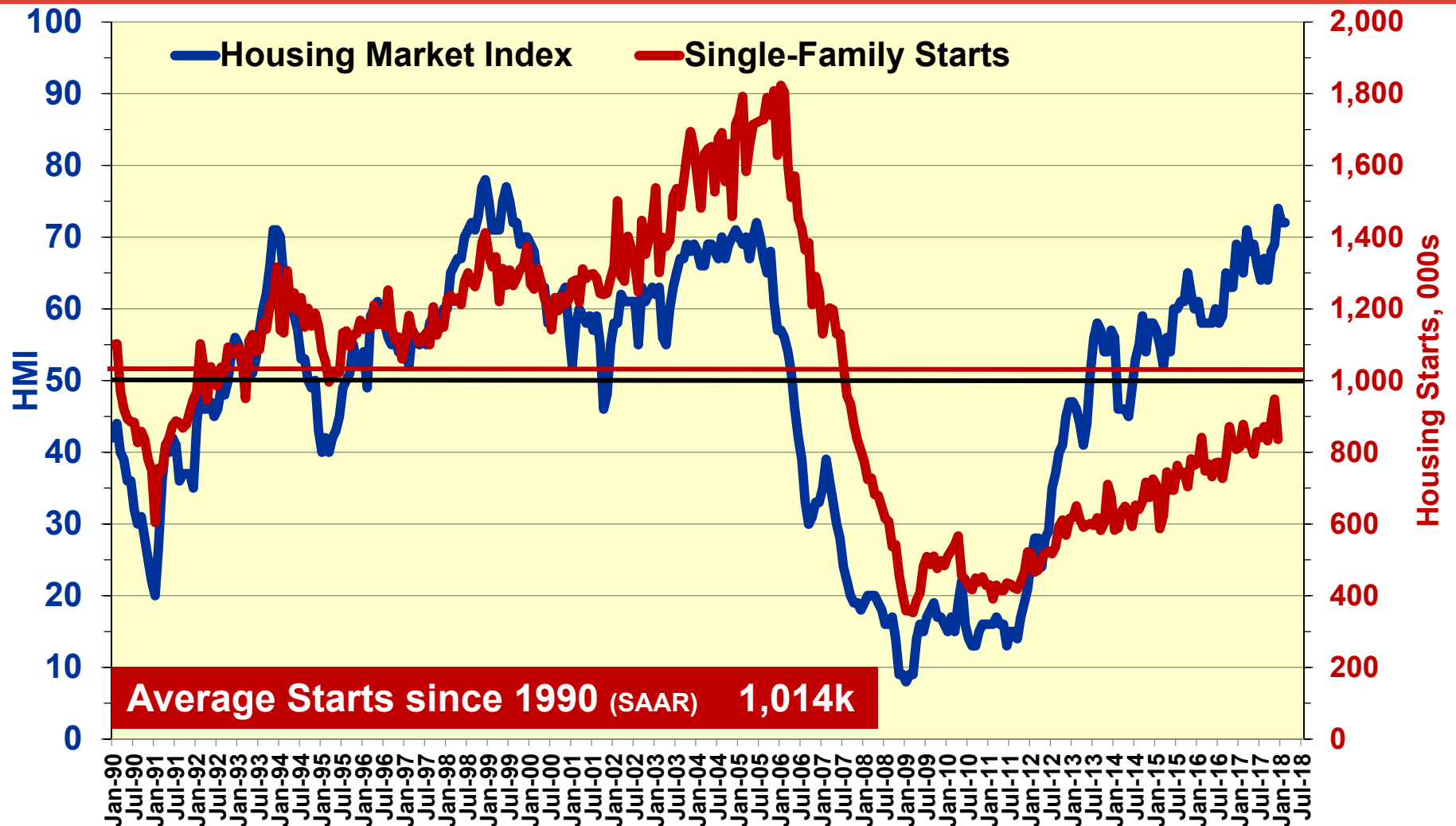
- **Land & land development costs**
- **Construction Costs: labor & materials**
- **Rent growth**
- **Regulatory Effects: federal, state and local constrain supply & lead to higher costs**
- **SF investor-rental market**

National Housing Market

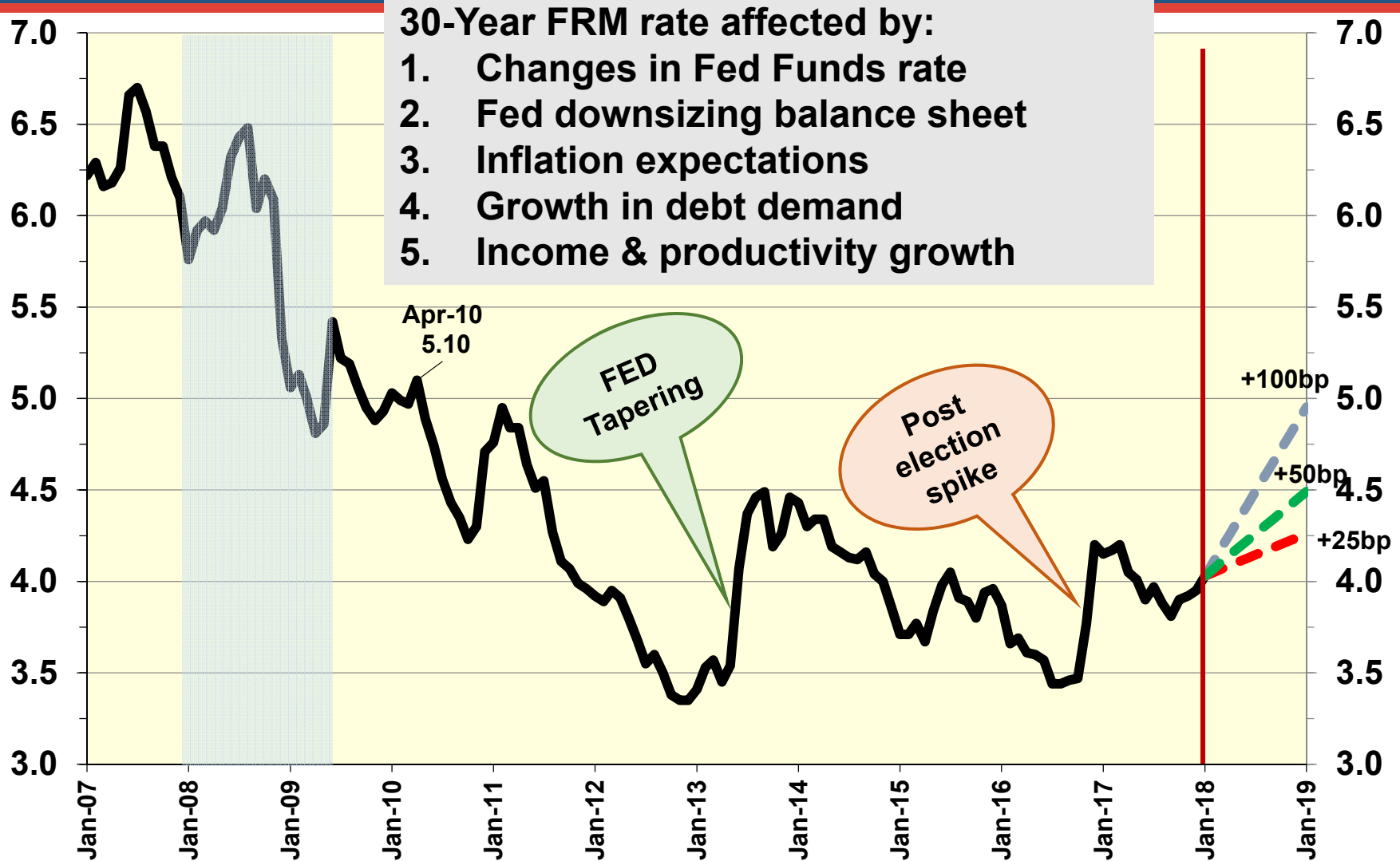
New and Existing SF Home Sales



NAHB-Wells Fargo Housing Market Index & SF Starts



Expected Interest Rate on a 30-Year, Fixed-Rate Mortgage in 2018



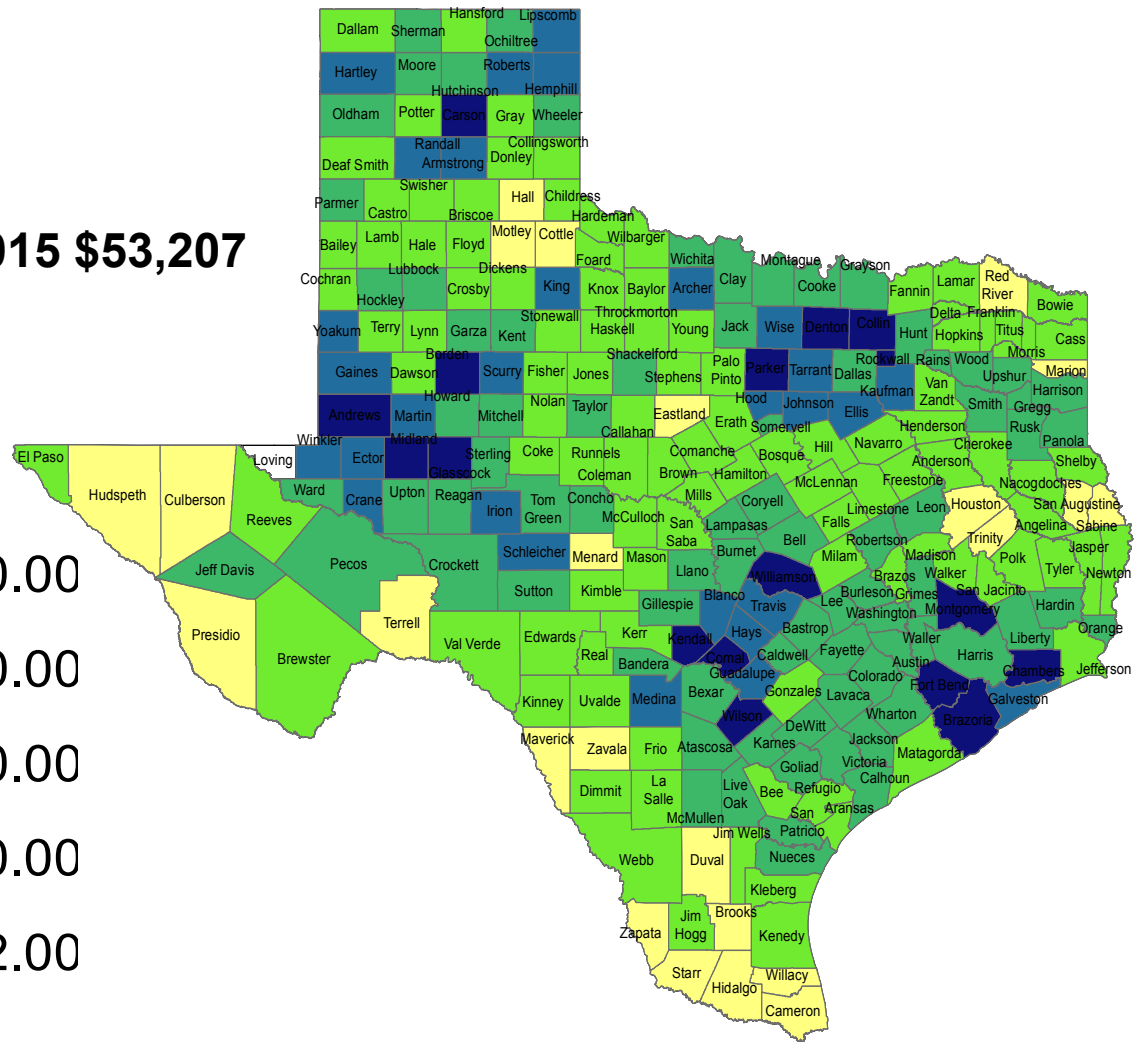
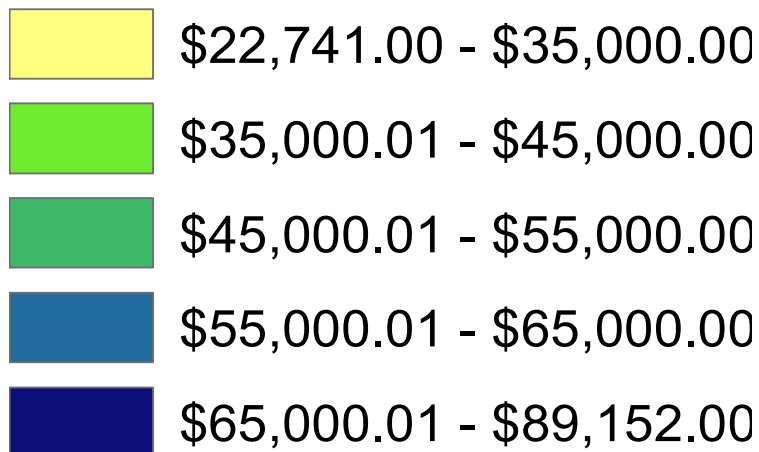
Texas Housing Market & Affordability

Mortgage & Tenure Status of Homes in Texas 2006 & 2016

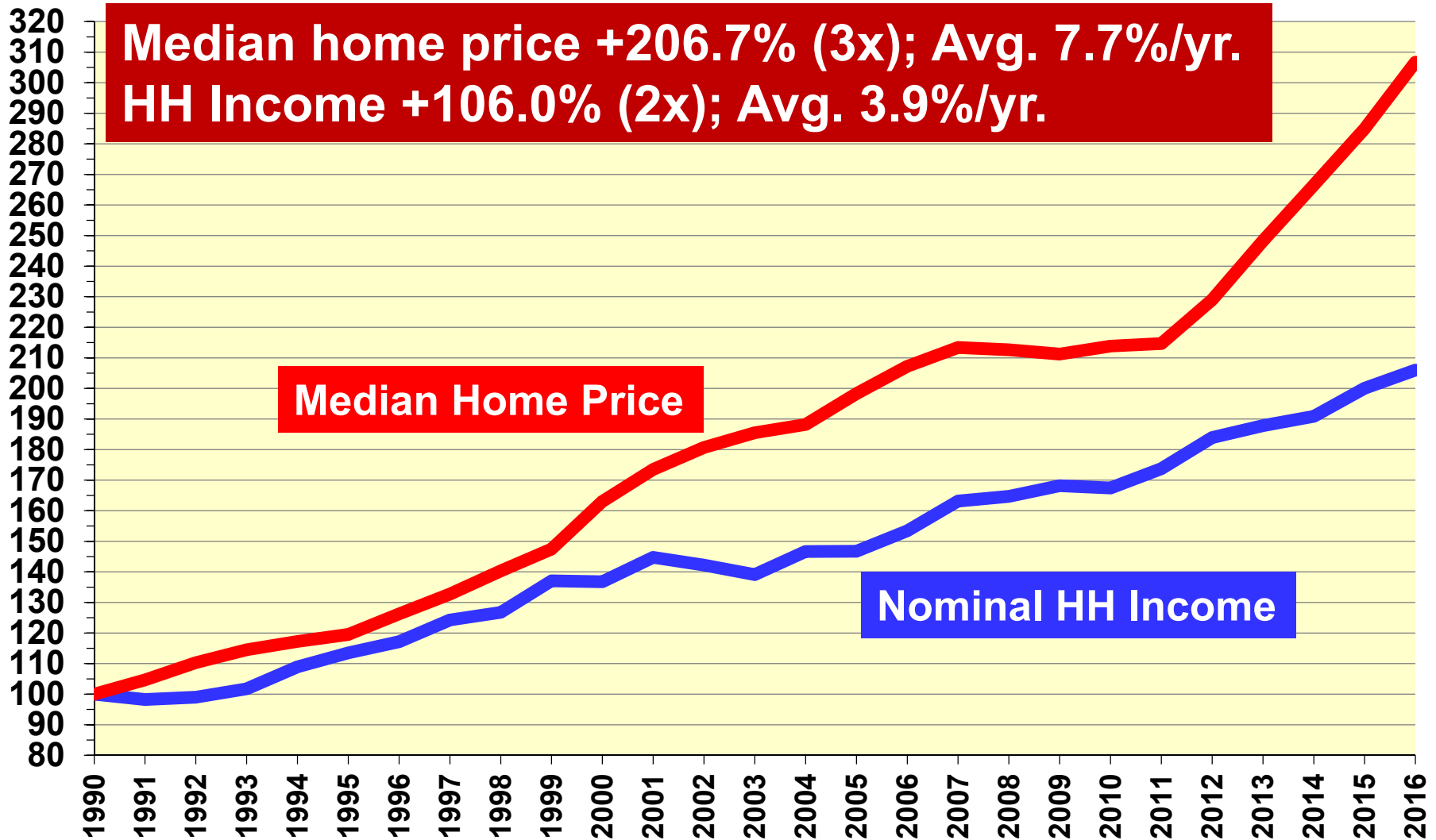
	2006		2016	
	Number	Percent of Total Units	Number	Percent of Total Units
Total Housing Units	9,224,920		10,754,268	
Total Occupied Units	8,109,388	87.9%	9,535,612	88.7%
Total Renter-Occupied Housing Units	2,818,343	34.8%	3,710,141	38.9%
Total Owner-Occupied Housing Units	5,291,045	65.2%	5,825,471	61.1%
O-O units with a mortgage	3,368,890	63.7%	3,366,378	57.8%
O-O units without a mortgage	1,922,155	36.3%	2,459,093	42.2%

Median Household Income, Texas Counties, 2011-2015

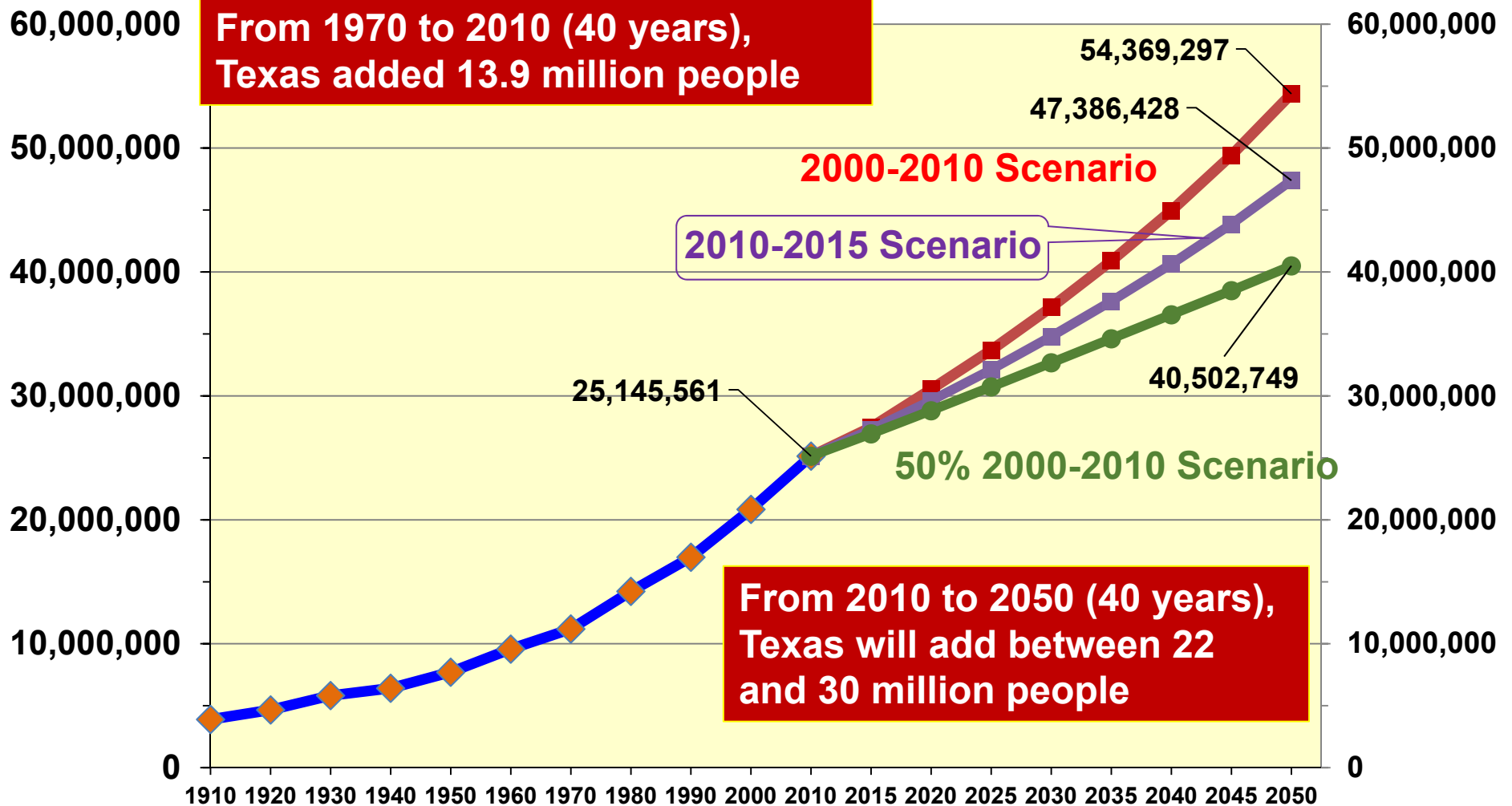
Median HH Income 2011-2015 \$53,207



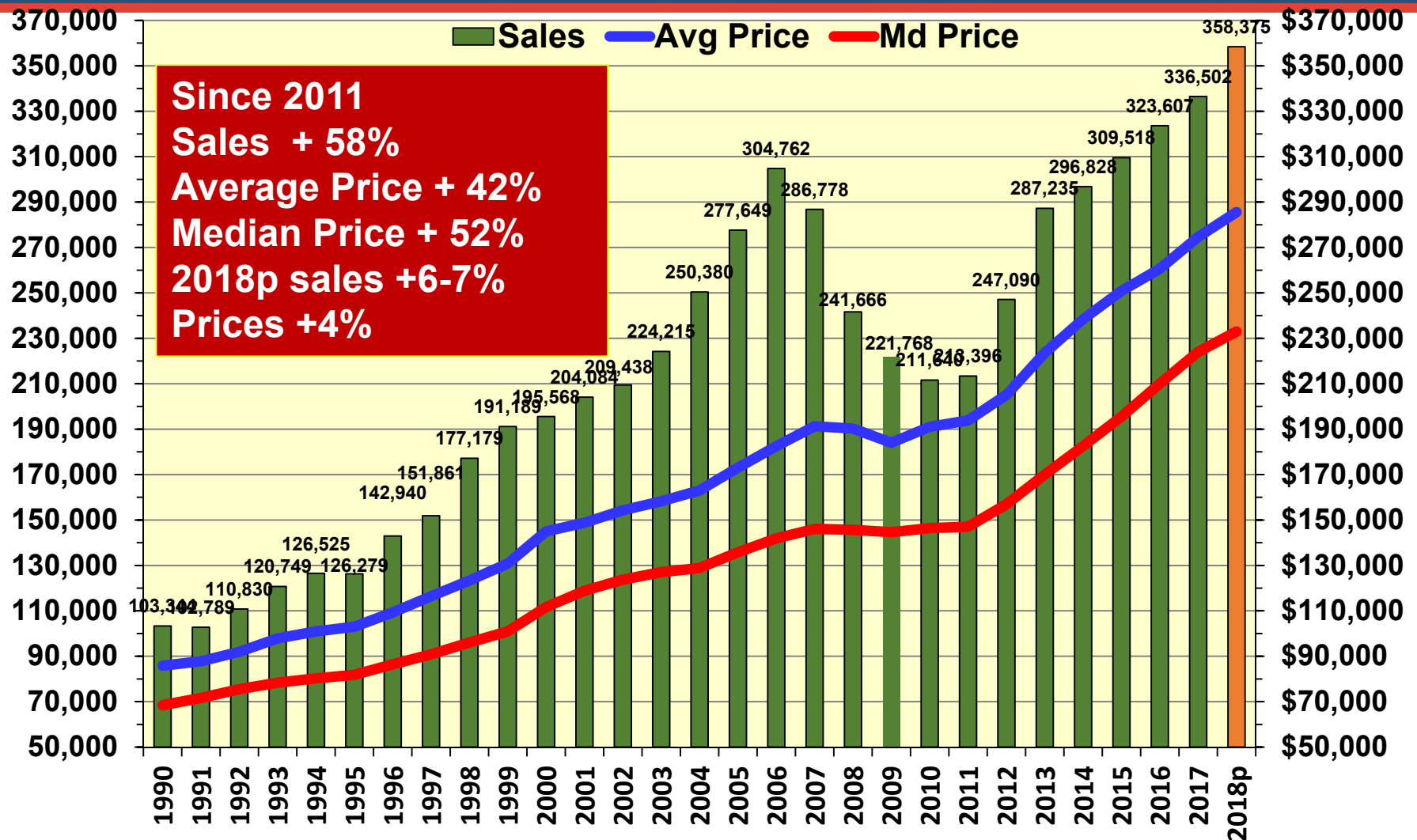
Texas Median HH Income & Median Home Price Indexed to 1990



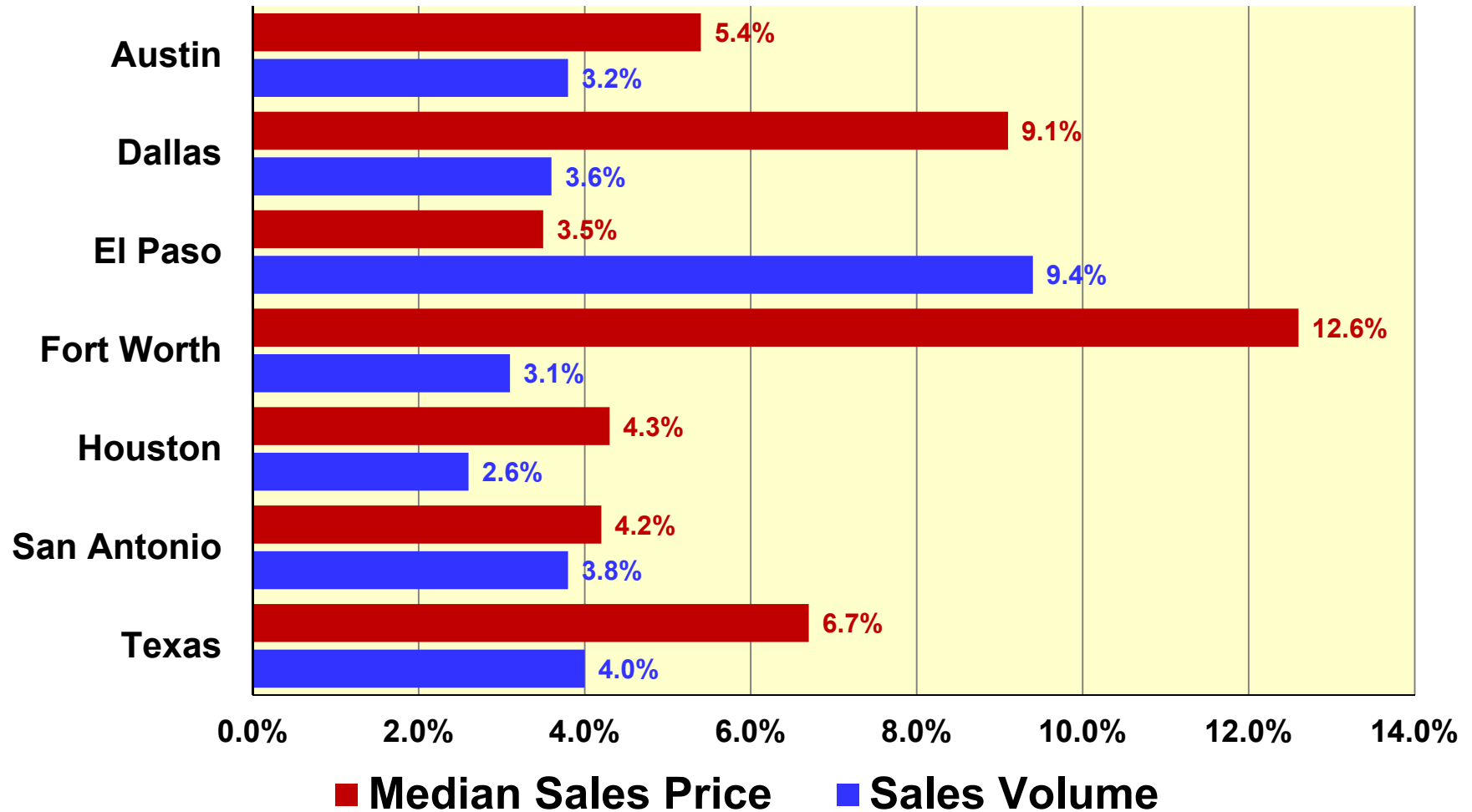
Alternative Texas Population Projections 2010-2050



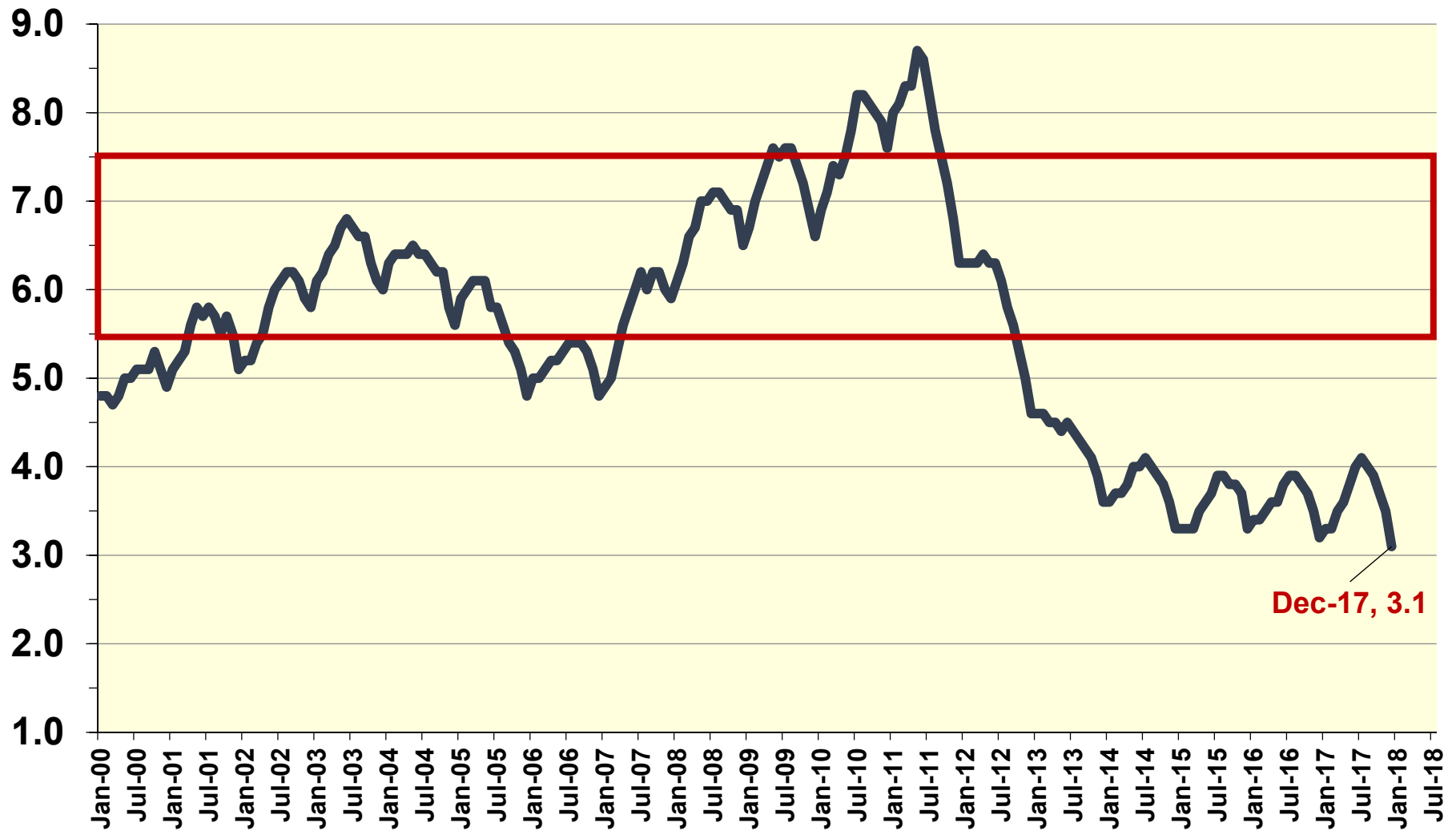
Annual Texas Home Sales



2017 Change in Home Sales and Median Prices by Metro Areas



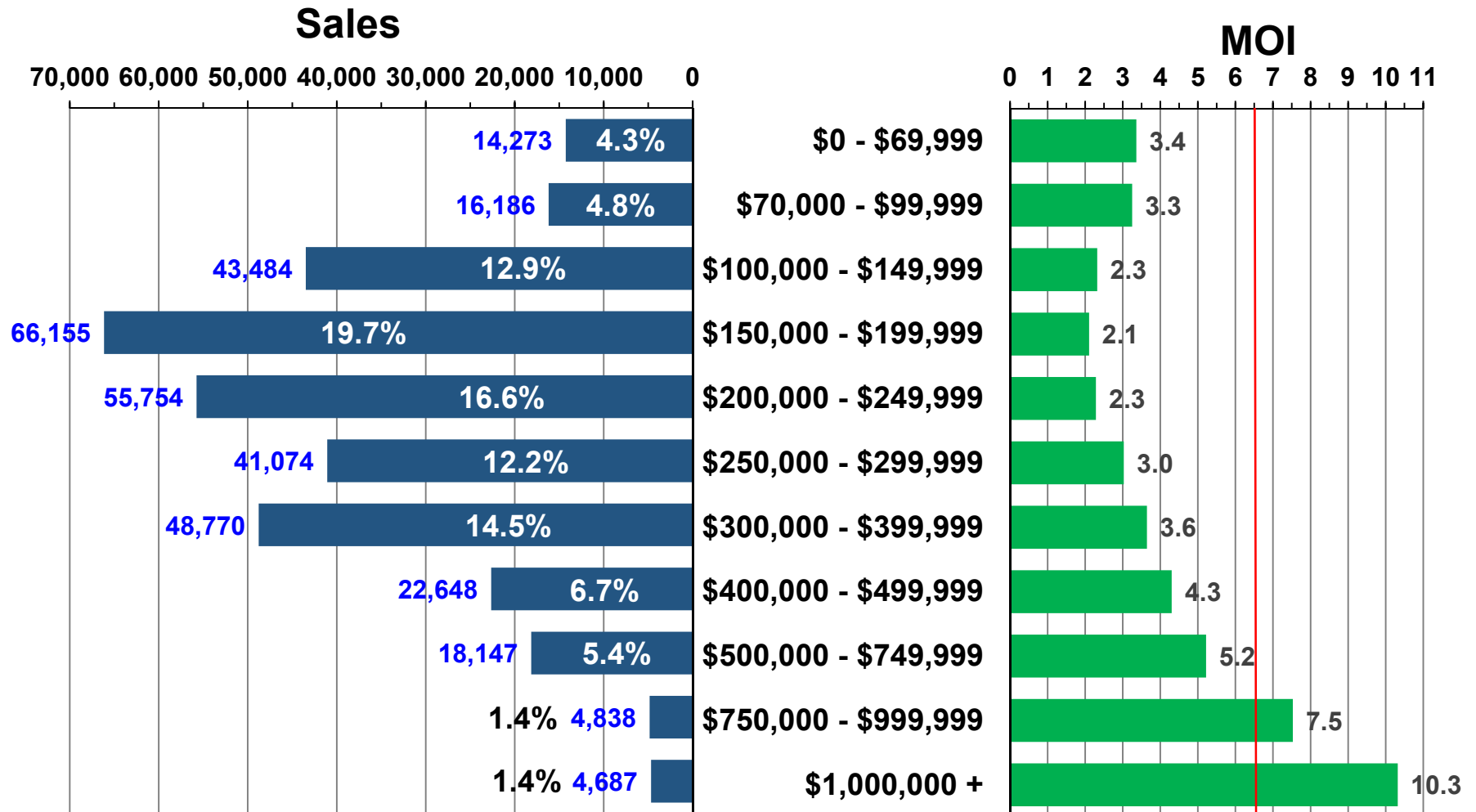
Texas Months' Inventory



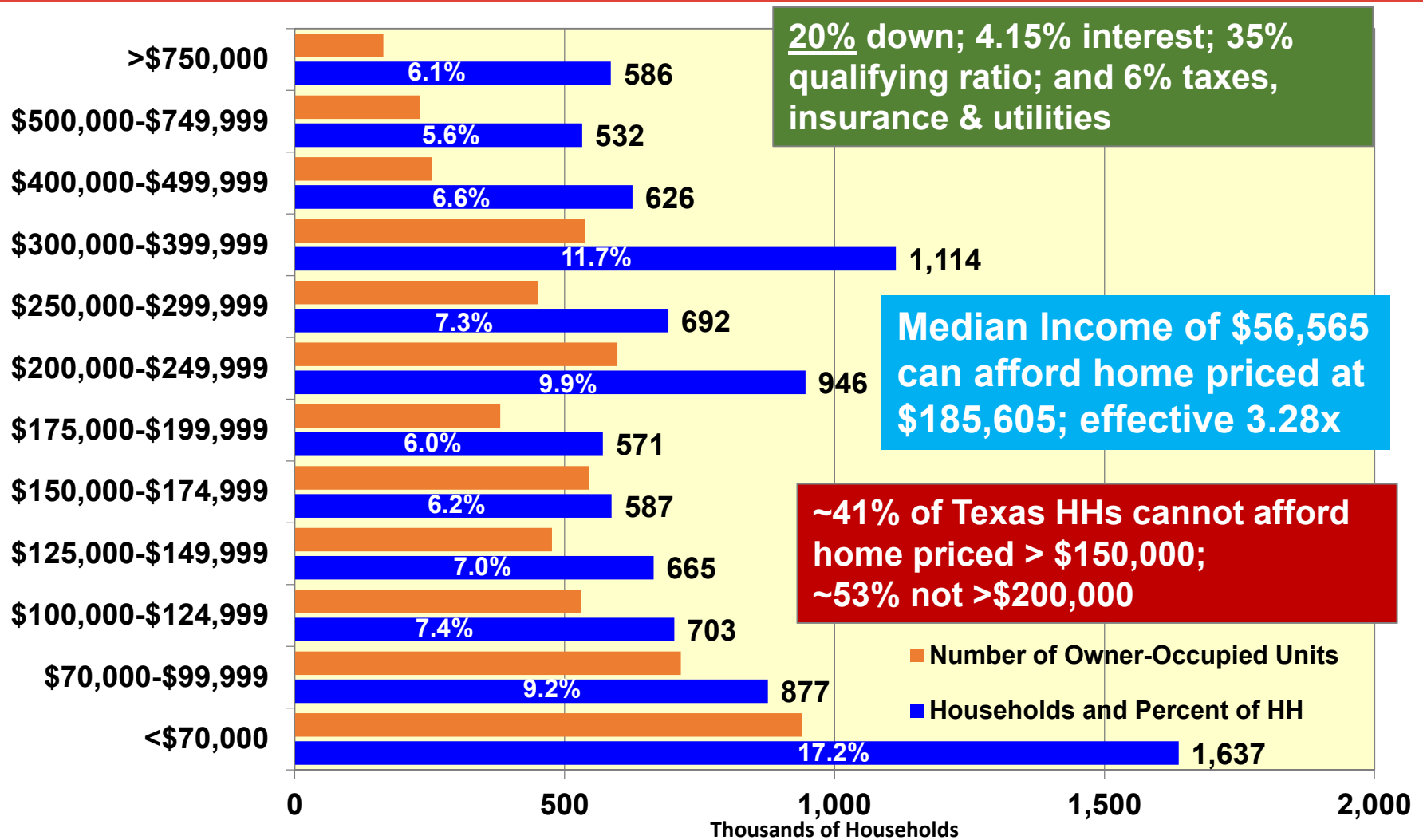
Texas Sales by Price Since 2011

Price Range		Percent Distribution						2017	
		2011	2012	2013	2014	2015	2016		
2011 69%	\$0 - \$69,999	15.1	12.7	9.2	7.2	6.1	5.0	4.2	2017 42%
	\$70,000 - \$99,999	12.5	11.3	9.5	8.2	6.8	5.6	4.8	
	\$100,000 - \$149,999	23.6	22.8	21.9	20.2	17.7	15.2	12.9	
	\$150,000 - \$199,999	17.5	18.5	19.7	20.3	20.7	20.6	19.7	
30%	\$200,000 - \$249,999	9.8	10.8	11.7	12.8	14.1	15.6	16.6	55%
	\$250,000 - \$299,999	6.9	7.6	8.3	9.1	10.2	11.3	12.2	
	\$300,000 - \$399,999	7.1	7.9	9.3	10.5	11.8	13.0	14.5	
	\$400,000 - \$499,999	3.0	3.6	4.5	5.1	5.6	6.2	6.7	
	\$500,000 - \$749,999	2.7	3.0	3.6	4.2	4.6	4.9	5.4	
	\$750,000 - \$999,999	0.9	1.0	1.1	1.2	1.3	1.3	1.4	
	\$1,000,000 +	0.9	0.9	1.1	1.2	1.2	1.2	1.4	

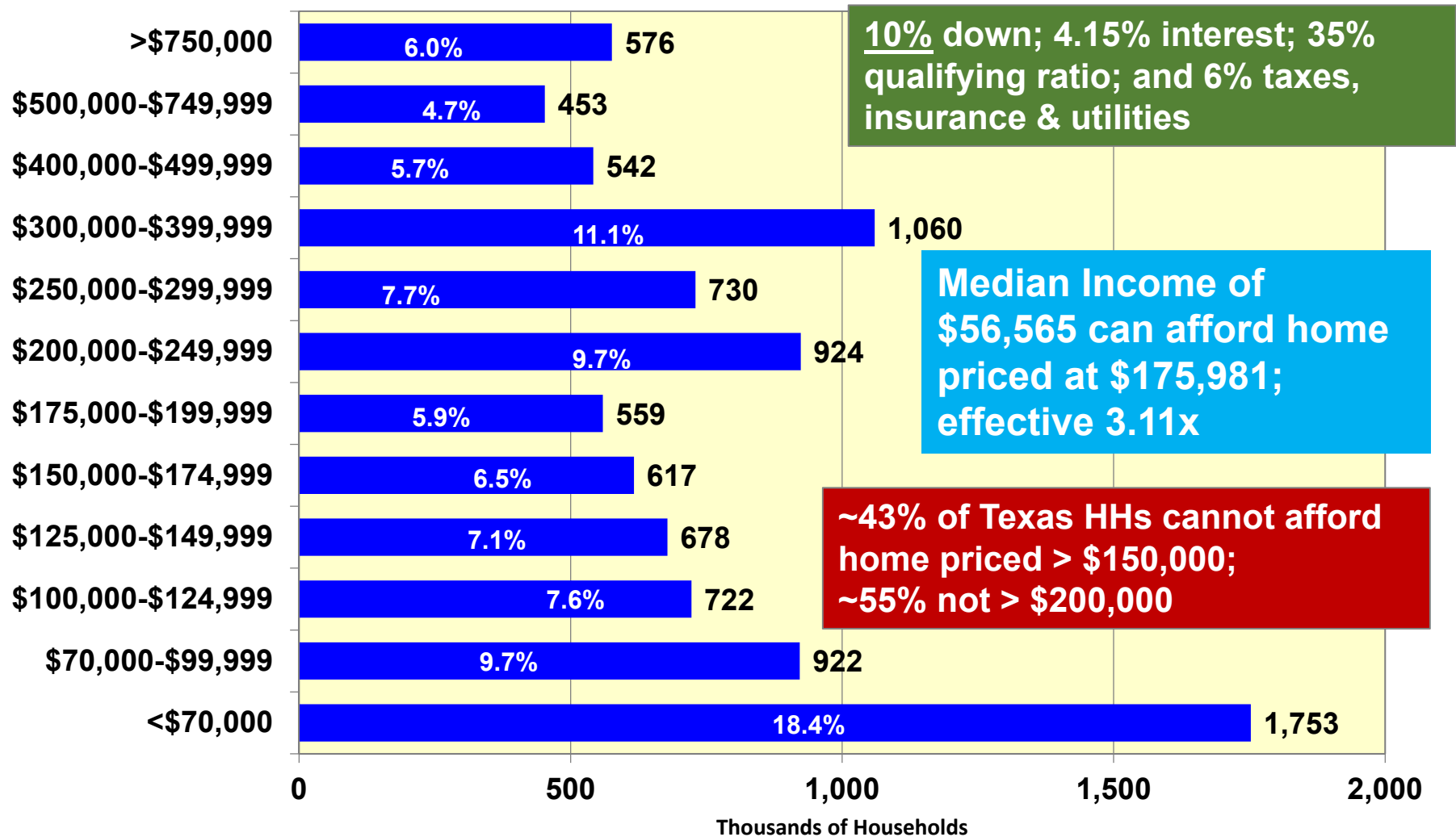
Texas 2017 Sales and EoY Months Inventory by Price



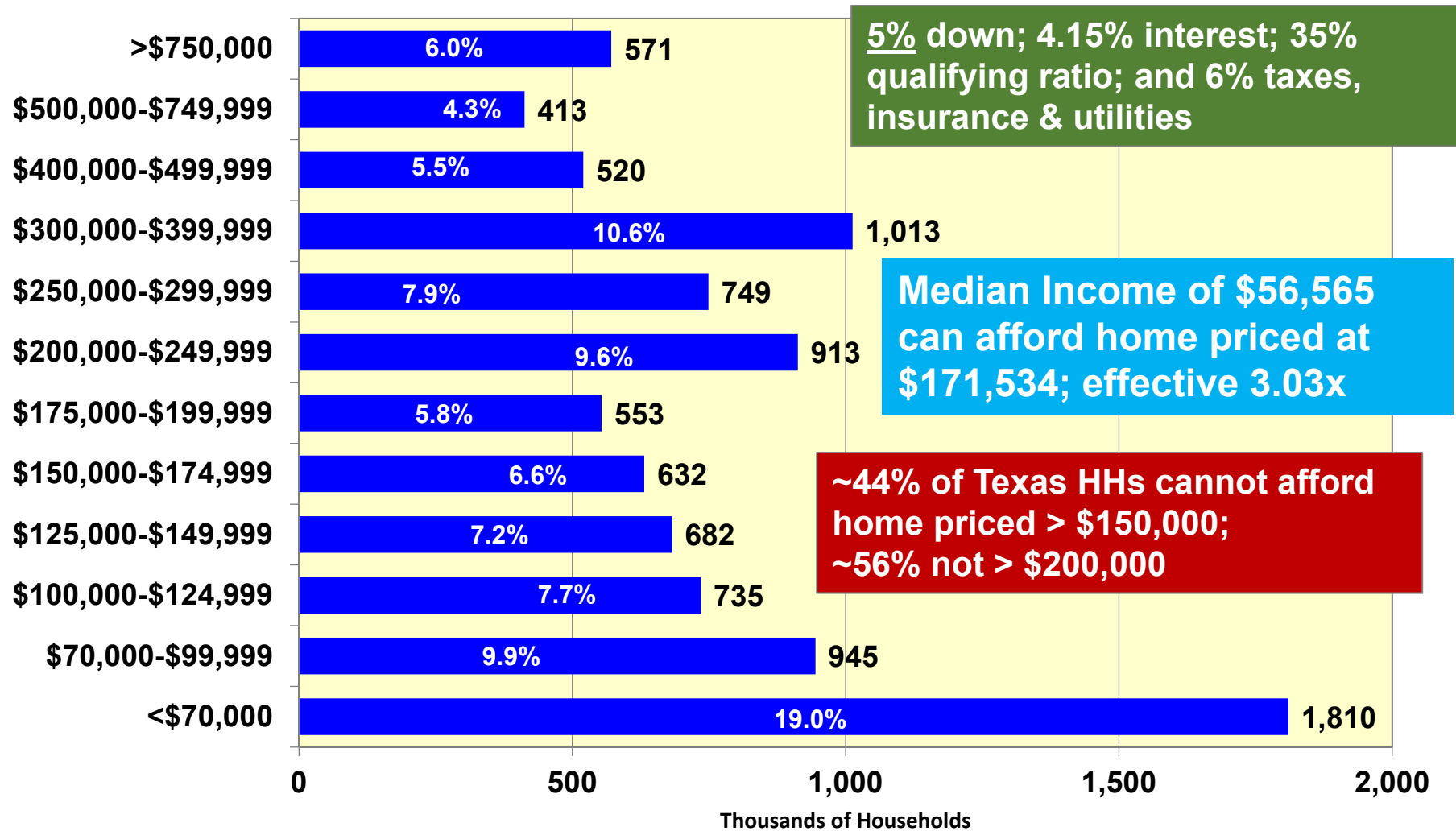
Texas Households by Highest Affordable Price: 20% Down



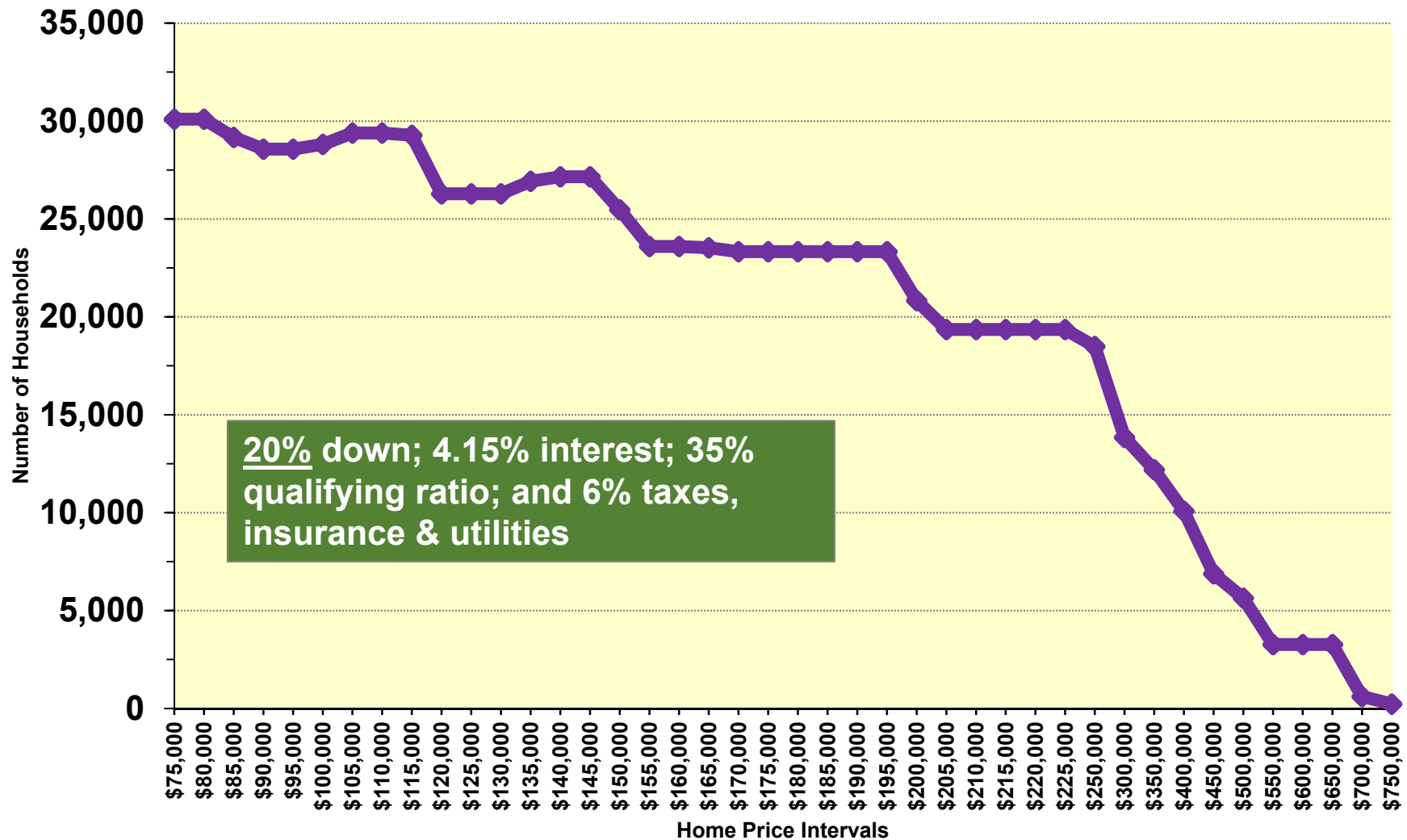
Texas Households by Highest Affordable Price: 10% Down



Texas Households by Highest Affordable Price: 5% Down



Average Number of Texas Households That Cannot Afford a Home Price Increase of \$1,000

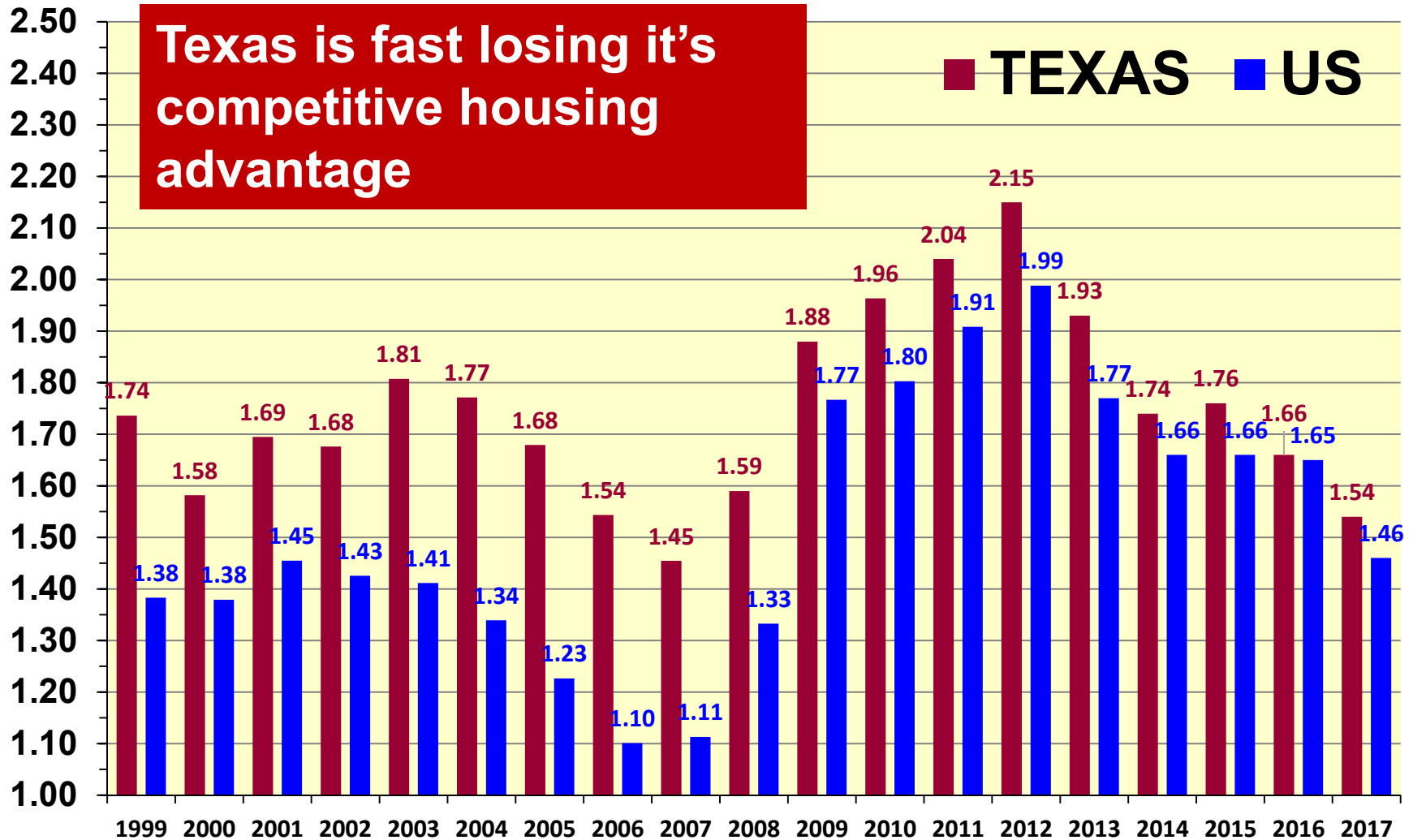


Average Number of Households Unable to Afford a \$1,000 Price Increase

20% down; 4.15% interest; 35% qualifying ratio; and 6% taxes, insurance & utilities

Home Price Intervals	Average Number of HH Per \$1,000 Price Increase
\$50,000-\$100,000	28,449
\$100,000-\$150,000	27,362
\$150,000-\$200,000	23,156
\$200,000-\$250,000	19,213
\$250,000-\$300,000	16,169
\$300,000-\$500,000	9,726
\$500,000-\$750,000	2,130
Average thru \$250,000	25,315
Overall Average	21,358

Texas & US Housing Affordability Indexes



Measuring Affordable Housing

Measuring Affordable Housing: Demand and Supply at the Local Level:

Austin/Travis County Case Study on
Affordability

Affordable Price and Rent by Median HH Income Cohorts

- What is an “affordable” unit?
 - Owner-occupied units:
Price-to-income ratio of 3.33
 - Renter-occupied units:
Rent-to-income ratio of 35%

2015 Median Household Income
 Travis County = \$65,269
 City of Austin = \$62,250

	Travis County				City of Austin			
Income Cohorts	Income Distribution		Price Range of “Affordable”	Rent Range of “Affordable”	Income Distribution		Price Range of “Affordable”	Rent Range of “Affordable”
0-30% MHI	\$0	\$19,581	\$0 - \$65,205	\$0 - \$571	\$0	\$18,675	\$0 - \$62,188	\$0 - \$545
>30-60% MHI	\$19,582	\$39,161	\$65,206 - \$130,406	\$572 - \$1,142	\$18,676	\$37,350	\$62,189 - \$124,376	\$546 - \$1,089
>60-80% MHI	\$39,162	\$52,215	\$130,407 - \$173,876	\$1,143 - \$1,523	\$37,351	\$49,800	\$124,377 - \$165,834	\$1,090 - \$1,453
>80-120% MHI	\$52,216	\$78,323	\$173,877 - \$260,816	\$1,524 - \$2,284	\$49,801	\$74,700	\$165,835 - \$248,751	\$1,454 - \$2,179
>120-140% MHI	\$78,324	\$91,377	\$260,817 - \$304,285	\$2,285 - \$2,665	\$74,701	\$87,150	\$248,752 - \$290,210	\$2,180 - \$2,542
>140% MHI	\$91,378	-	>\$304,285	>\$2,665	\$87,151	-	>\$290,210	>\$2,542

Source: American Community Survey and REC Estimates

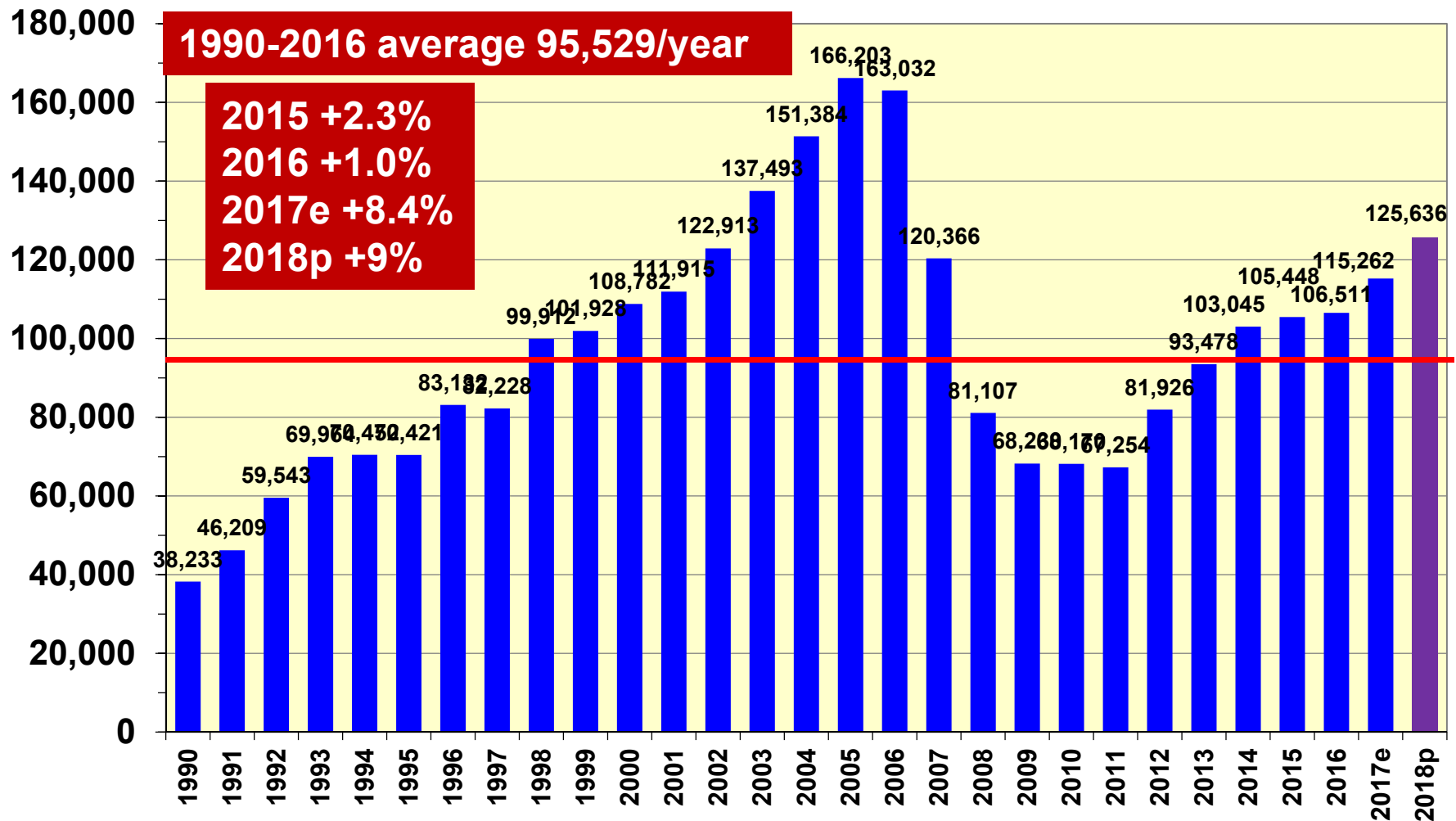
REC Estimate of Distribution of “Affordable” Owner- and Renter-Occupied Units in 2015

	Travis County				City of Austin			
Income Cohorts	“Affordable” Owner-Occupied Units (2015)	“Affordable” Renter-Occupied Units (2015)	Total “Affordable” Occupied Housing Units (2015)	“Affordable” Housing Units as a Percentage of Total Stock (2015)	“Affordable” Owner-Occupied Units (2015)	“Affordable” Renter-Occupied Units (2015)	Total “Affordable” Occupied Housing Units (2015)	“Affordable” Housing Units as a Percentage of Total Stock (2015)
0-30% MHI	10,186	20,247	30,433	6.8%	5,388	15,035	20,423	5.6%
>30-60% MHI	18,819	84,734	103,553	23.2%	9,589	75,381	84,970	23.3%
>60-80% MHI	23,391	67,556	90,947	20.4%	13,248	61,787	75,035	20.5%
>80-120% MHI	50,699	37,479	88,178	19.8%	36,685	41,446	78,131	21.4%
>120-140% MHI	22,855	4,344	27,199	6.1%	18,333	5,646	23,979	6.6%
>140% MHI	101,963	4,069	106,032	23.7%	78,594	3,761	82,355	22.6%
	227,913	218,429	446,342	100%	161,837	203,056	364,893	100%

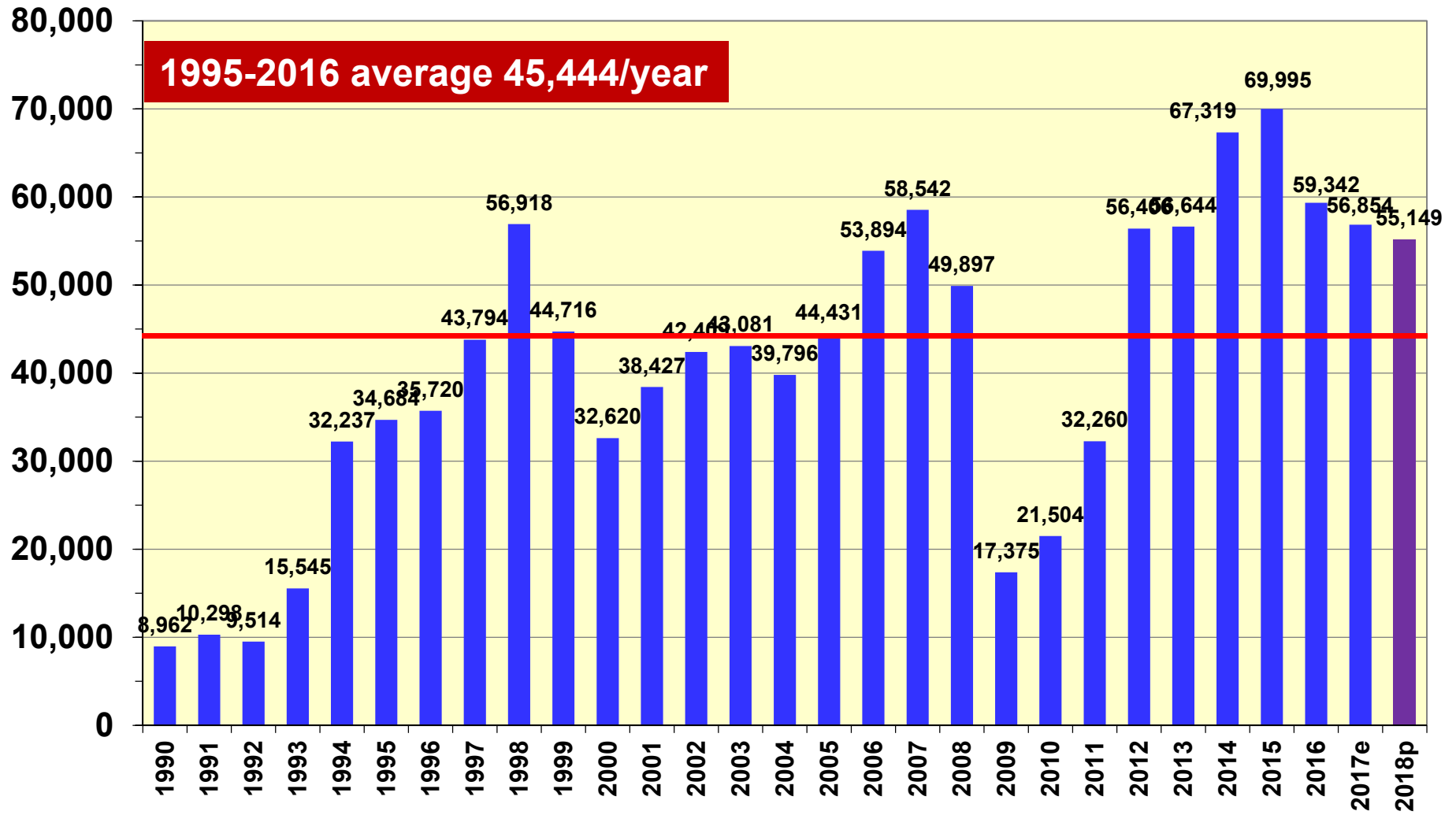
Projected Housing to Meet Affordability Needs: Travis Co.

Income Cohorts	Price Range of "Affordable" Price-to-income ratio of 3.33	Rent Range of "Affordable" Rent-to-income ratio of 35%	# of HHs in the Income Cohort (2015)	# of "Affordable" Occupied Housing Units by Income Cohort (2015)	Level of (Under) or Oversupply in 2015	Projected # of Households by 2025	Change in # of Occupied Housing Units to Meet "Affordability" of Each Income Cohort by 2025
0-30% MHI	\$0 - \$65,205	\$0 - \$571	53,184	30,433	(22,751)	71,266	40,833
>30-60% MHI	\$65,206 - \$130,406	\$572 - \$1,142	77,253	103,553	26,300	103,519	(34)
>60-80% MHI	\$130,407 - \$173,876	\$1,143 - \$1,523	48,038	90,947	42,909	64,371	(26,576)
>80-120% MHI	\$173,877 - \$260,816	\$1,524 - \$2,284	80,469	88,178	7,709	107,828	19,650
>120-140% MHI	\$260,817 - \$304,285	\$2,285 - \$2,665	30,066	27,199	(2,867)	40,288	13,089
>140% MHI	>\$304,285	>\$2,665	157,332	106,032	(51,300)	210,826	104,794
			446,342	446,342	-	598,098	151,756

Texas SF Building Permits

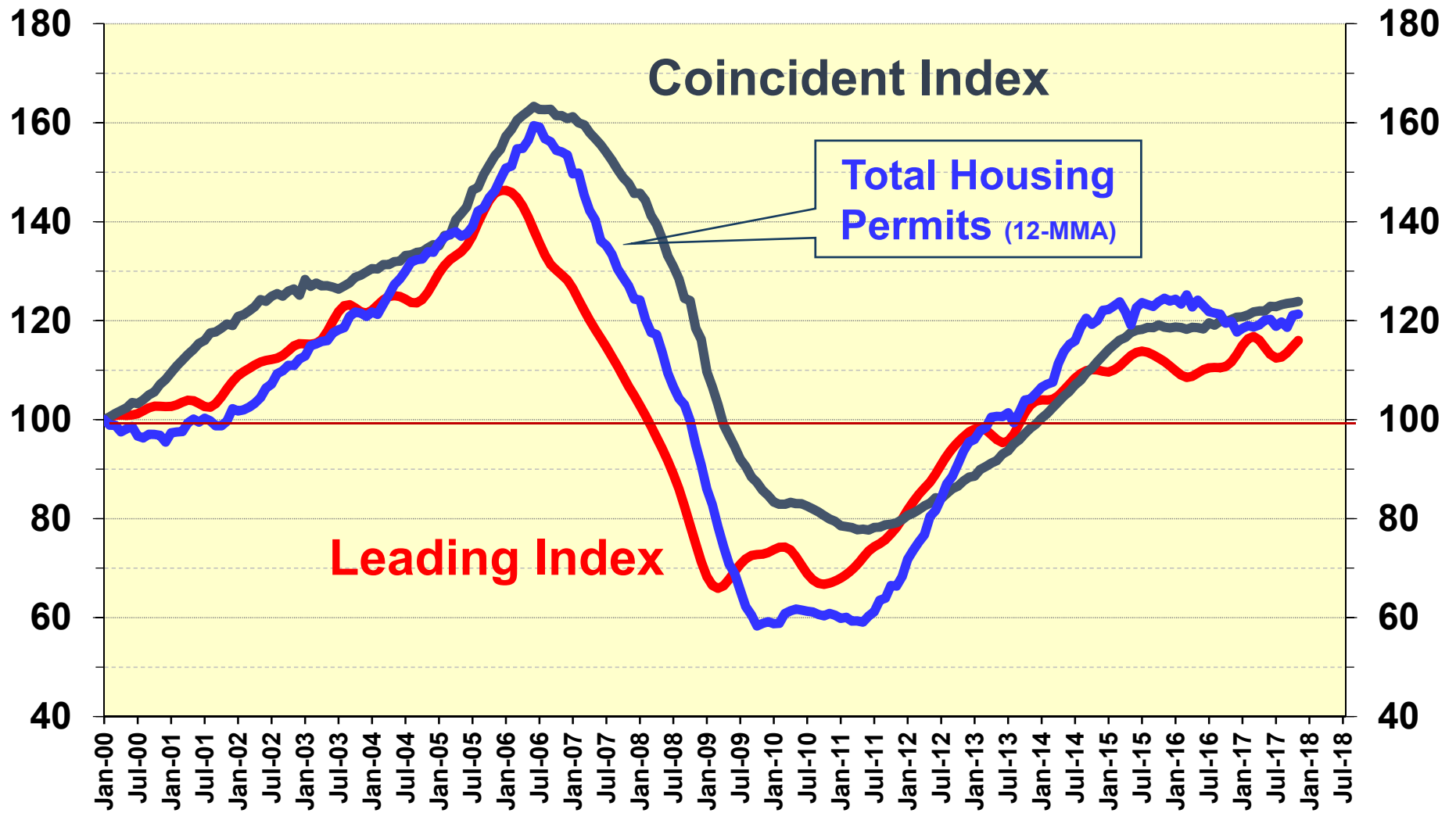


Texas MF Building Permits



Texas Residential Construction Leading and Coincident Indexes

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What We Have to Look Forward To!



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Assessing Texas' Eroding Affordable Housing Market

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