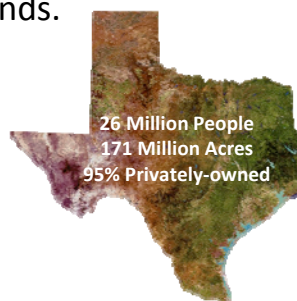


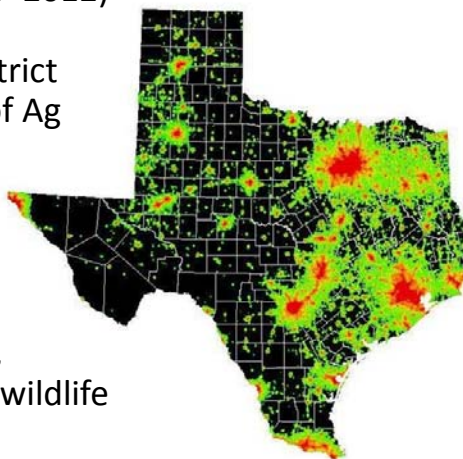
Value of Rural Lands

- Rural working lands play an unseen yet critical role in water/food sustainability and national/energy security.
- *Effective* conservation will require innovative solutions to sustaining private rural working lands.
- **Presentation Outline:**
 - Changes in human demographics
 - Changes in land uses
 - Changes in landowner values



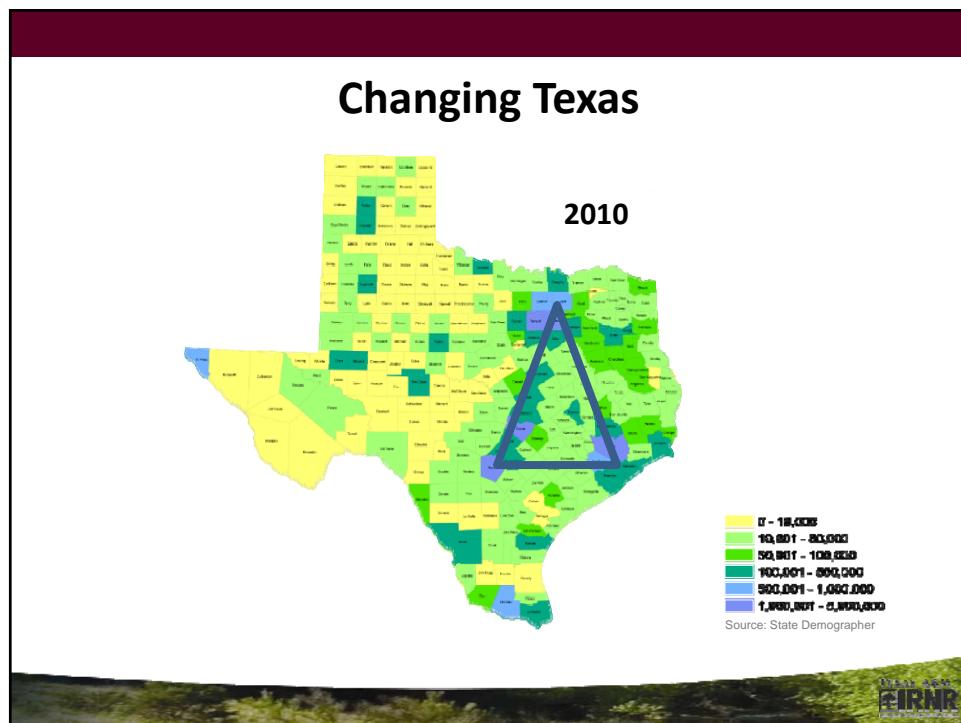
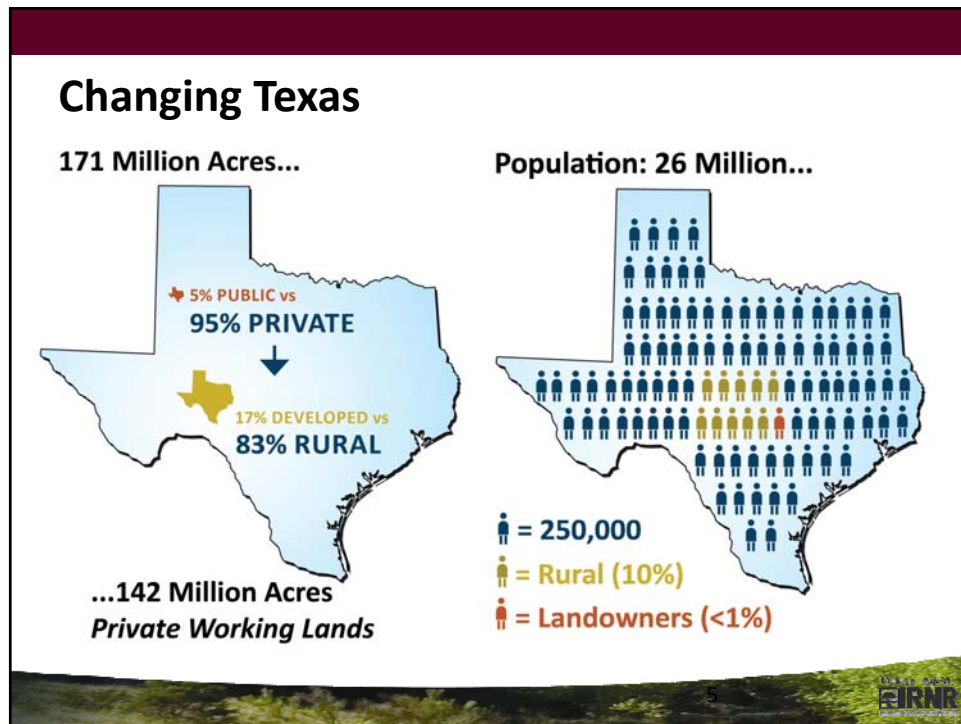
Texas Land Trends – *The Data*

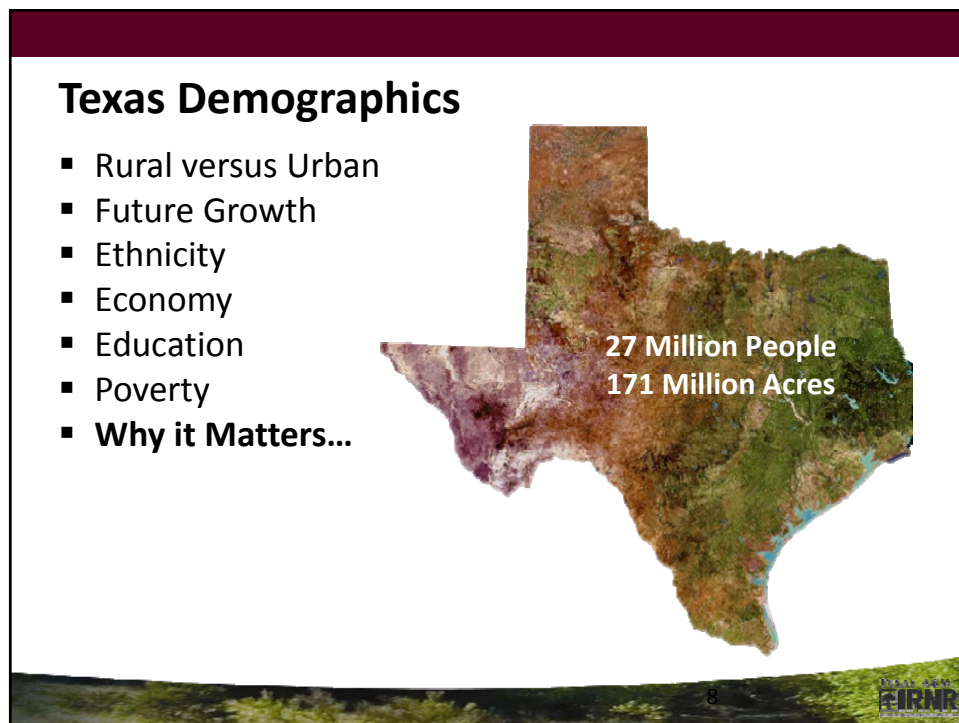
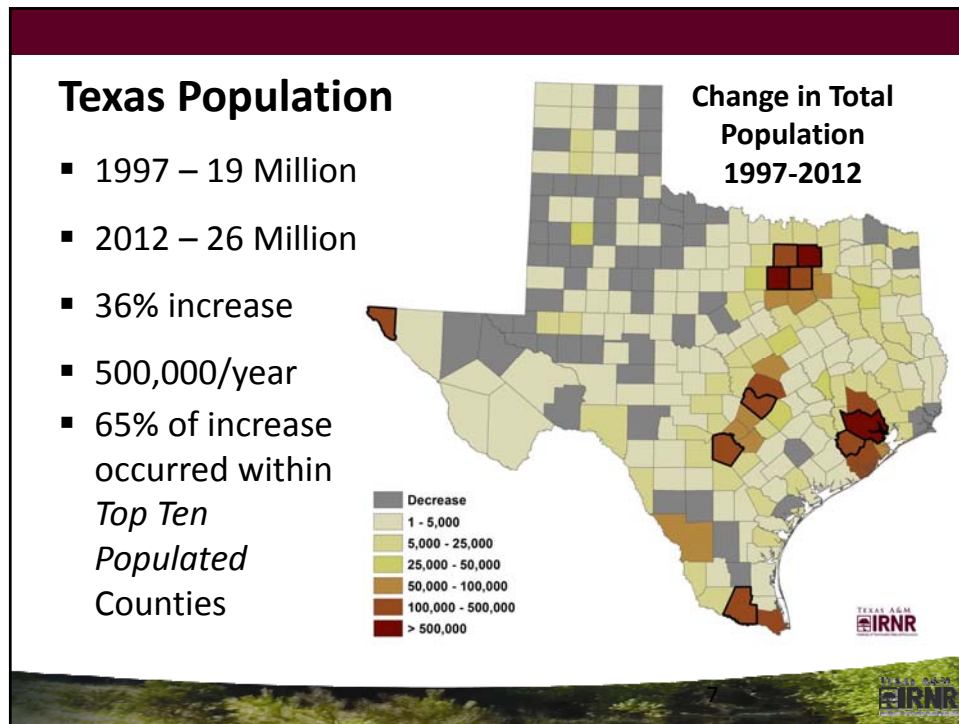
- Trends in land use (1997-2012)
- Primary datasets used
 - County Appraisal District
 - USDA NASS Census of Ag
 - Others
- Relationships among
 - Land Value
 - Land Ownership
 - Land Use
- **Working Lands** – farms, ranches, family forests, wildlife (e.g., 1D, 1D1)



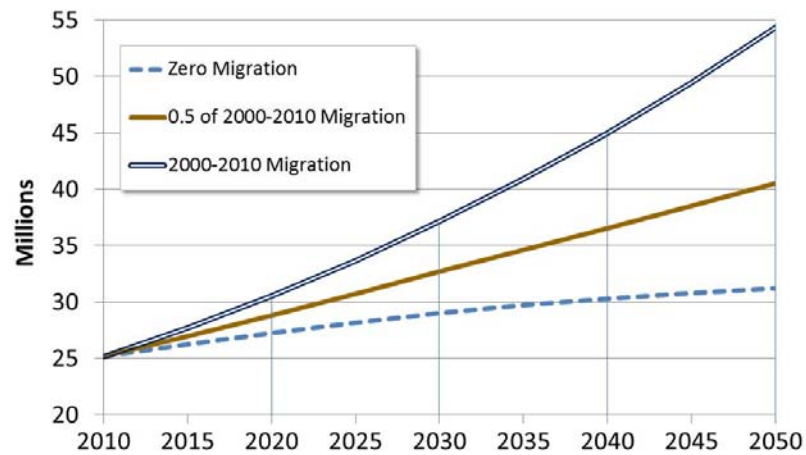
CHANGING PEOPLE







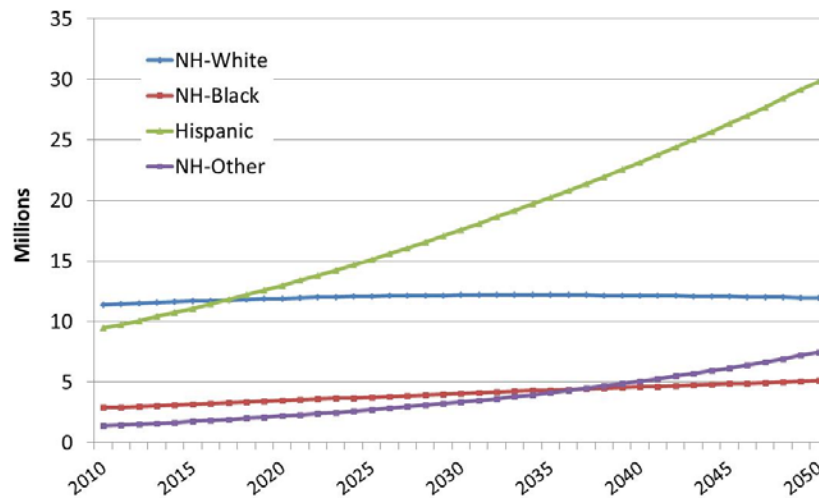
Texas Projections (2010-2050)



Source: State Demographer

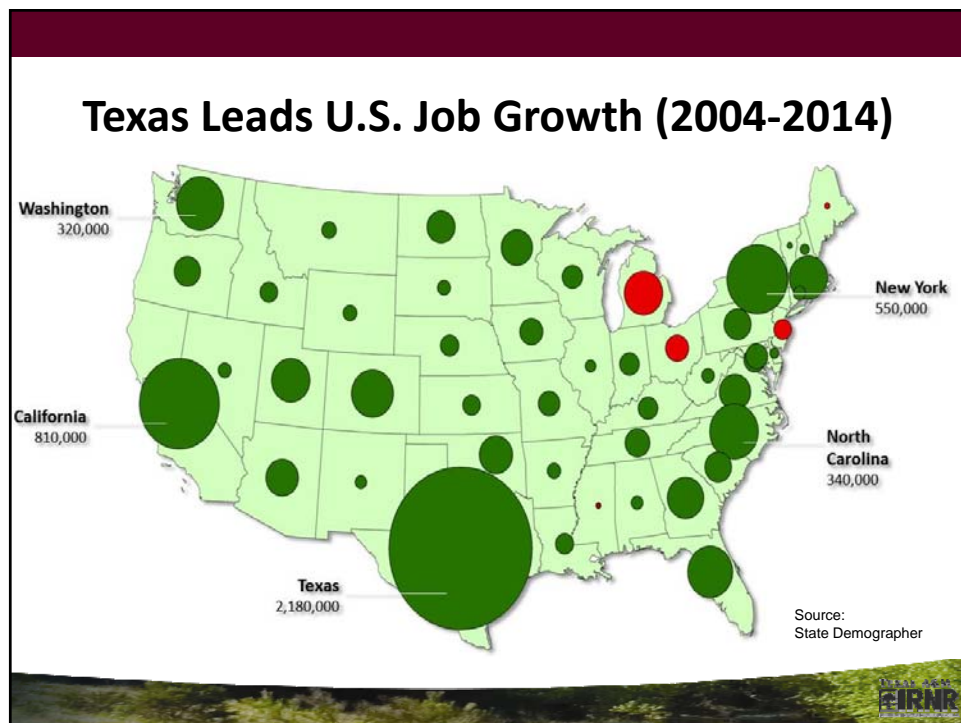
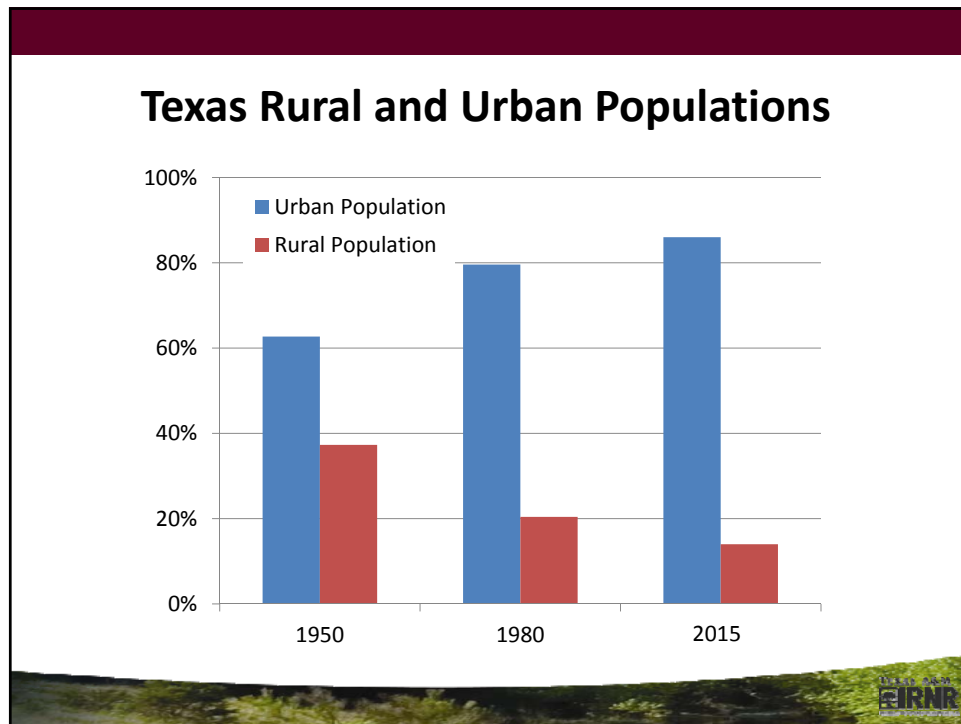
2010-2050
FIRNR

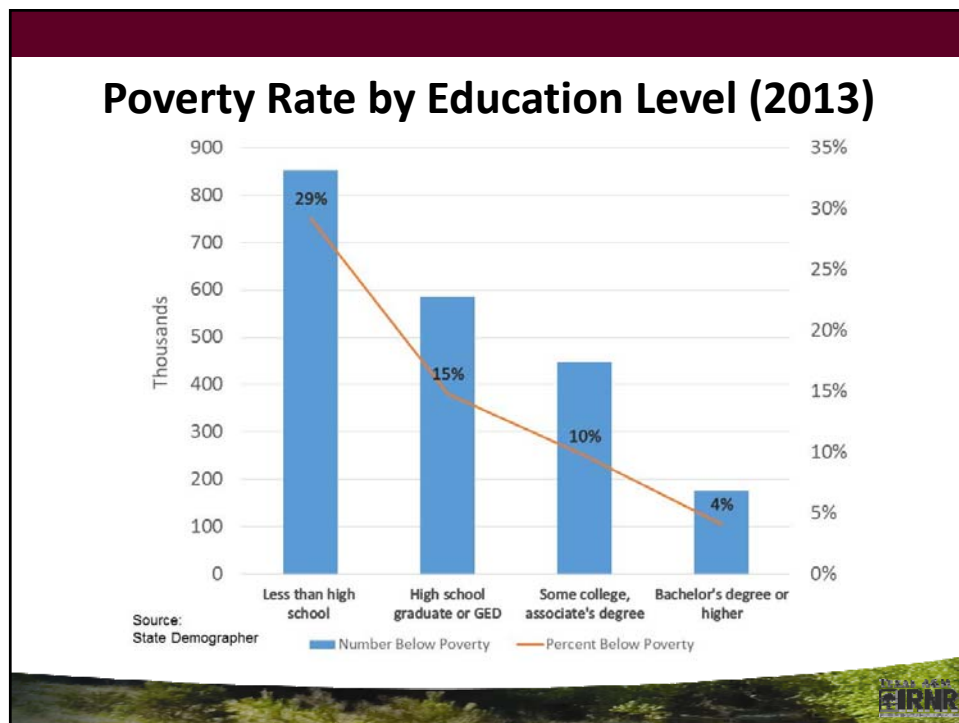
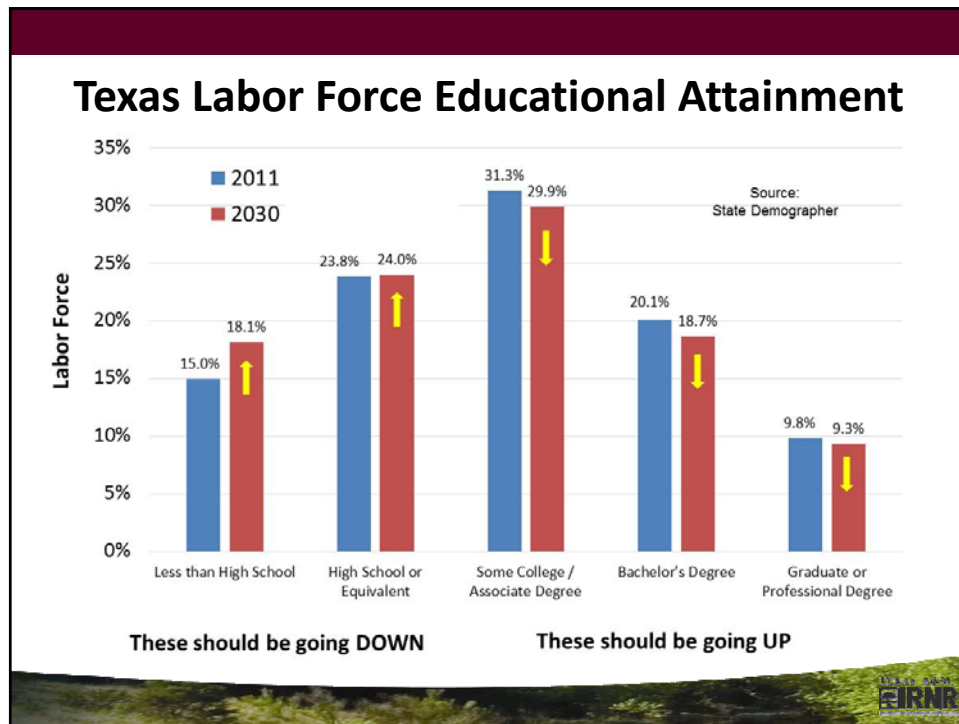
Texas Projections by Group (2010-2050)

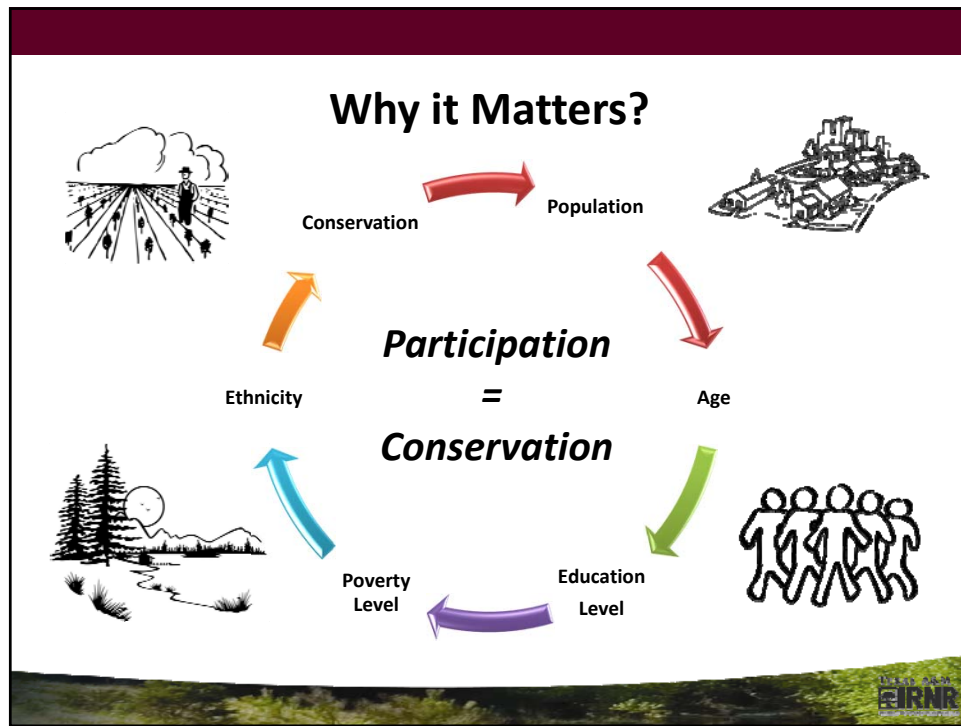


Source: State Demographer

2010-2050
FIRNR

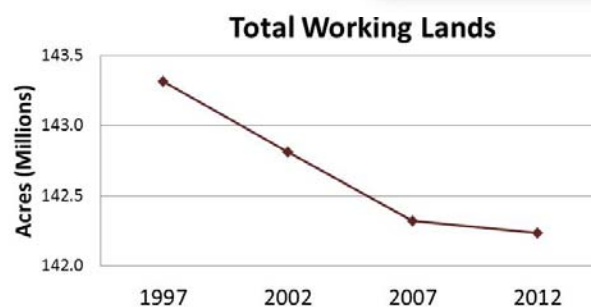






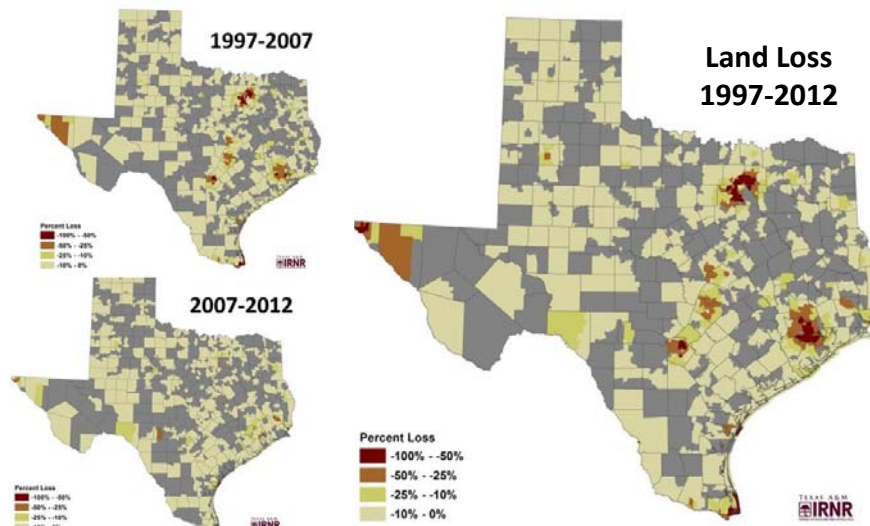
Working Land Loss

- 1997 – 143 Million acres
- 2012 – 142 Million acres
- Loss ~1 Million acres

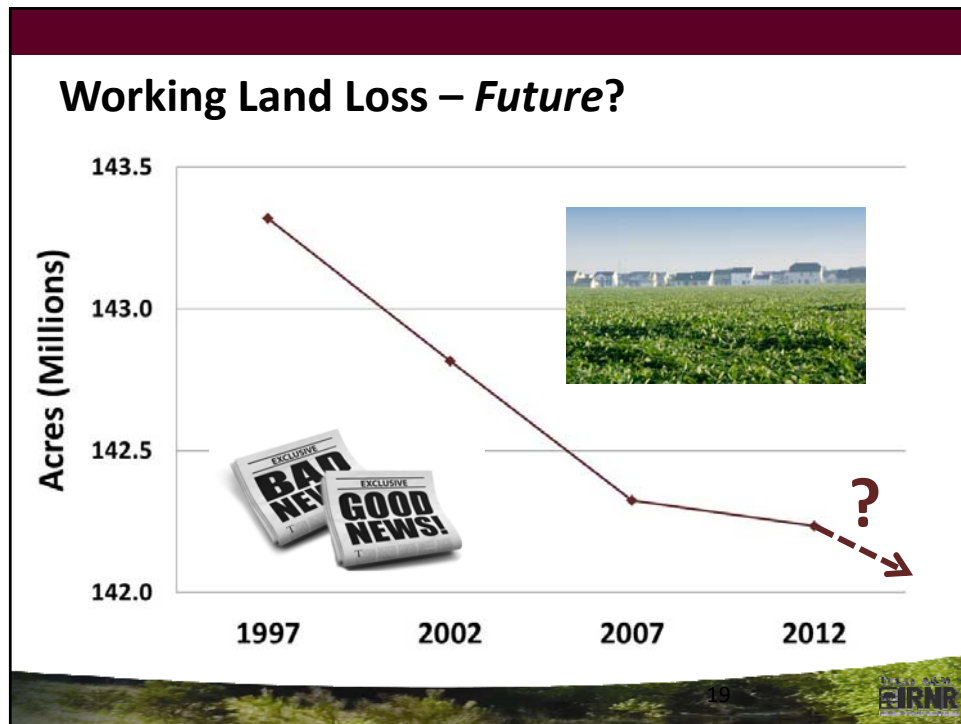


17

Working Land Loss



18

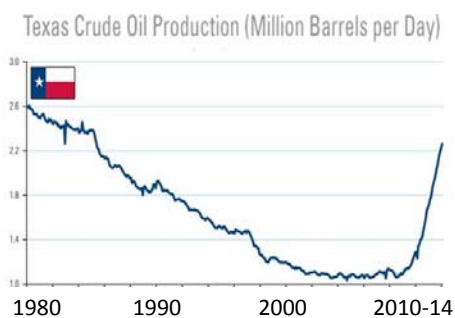


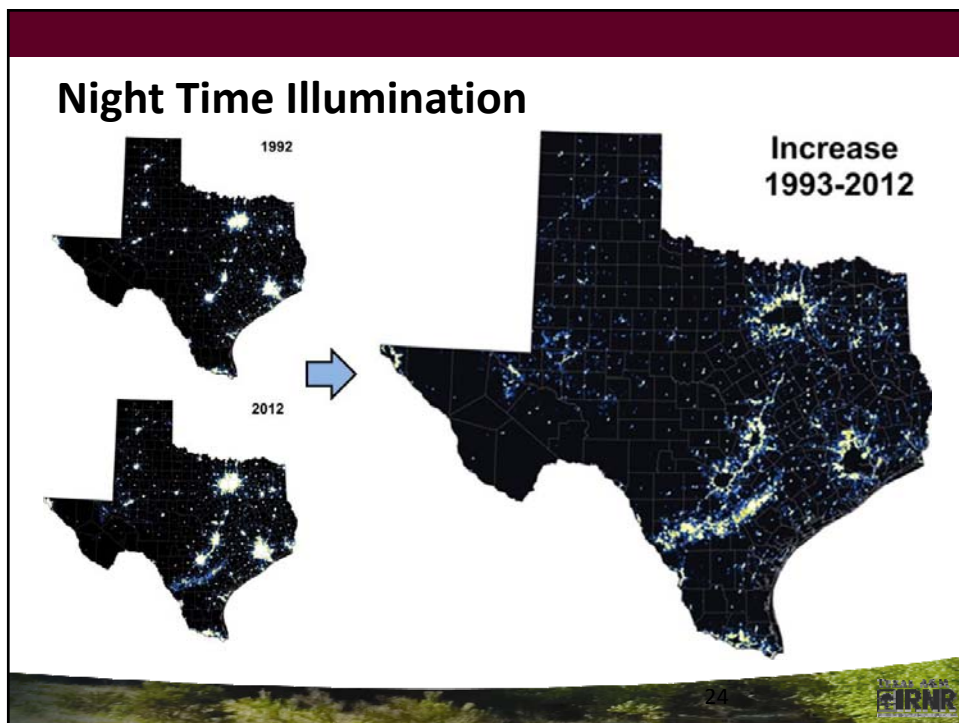
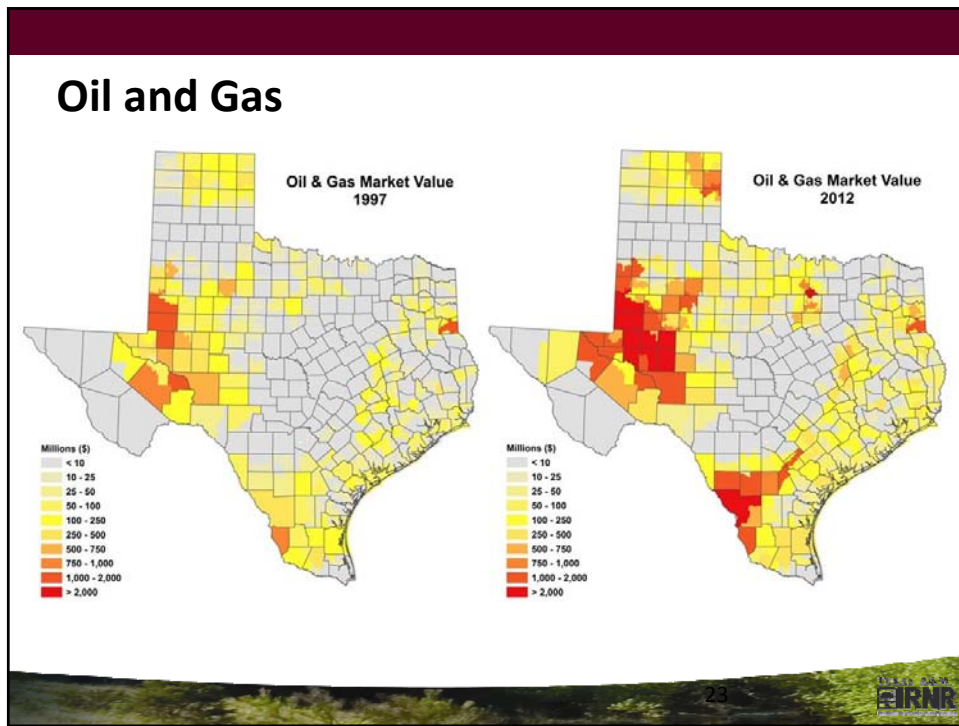
The Good....



Oil and Gas

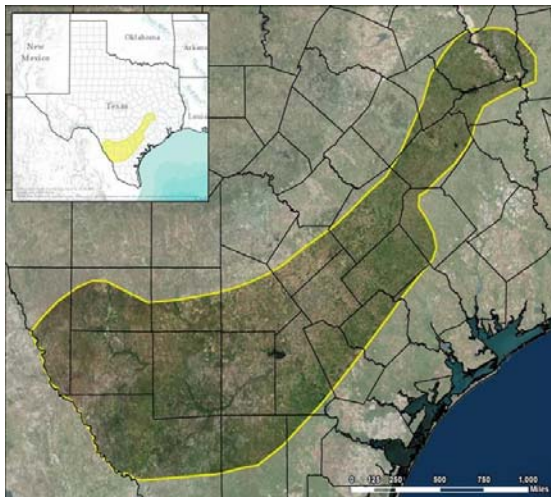
- *Game Changer*—Texas is leading crude oil production state in part to 3 large shale gas plays
 - Barnett, Haynesville and Eagle Ford
- U.S. oil production expected to exceed that of Saudi Arabia by 2017
- Eagle Ford Shale Story
 - \$87B in revenue (2014)
 - Since 2014, natural gas production has *doubled* and oil production has increased 6X.





Oil and Gas – *Eagle Ford Shale*

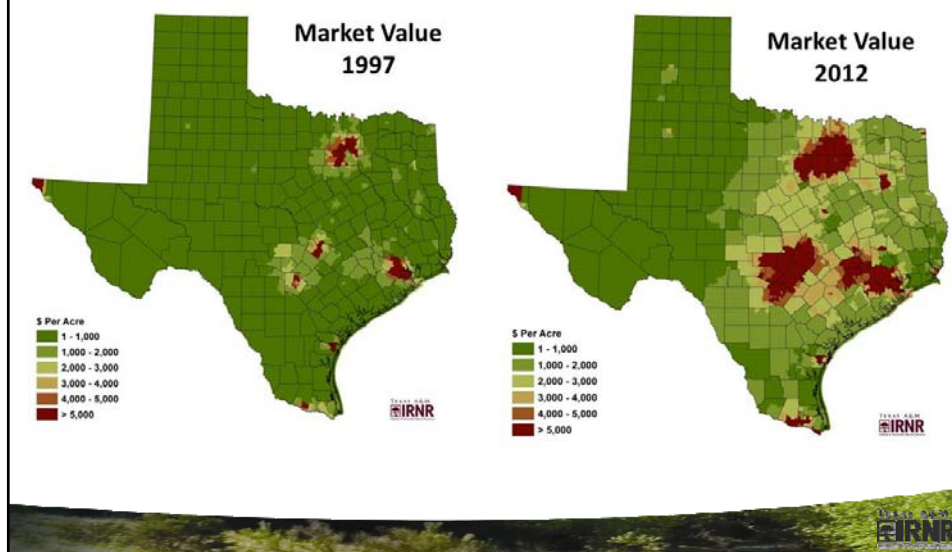
- Landsat 1993-2014 - CDA
- Estimated increase:
 - 23,000 well pads
 - 84,000 acres
 - 65% of construction occurred 2011-2014



The Bad....

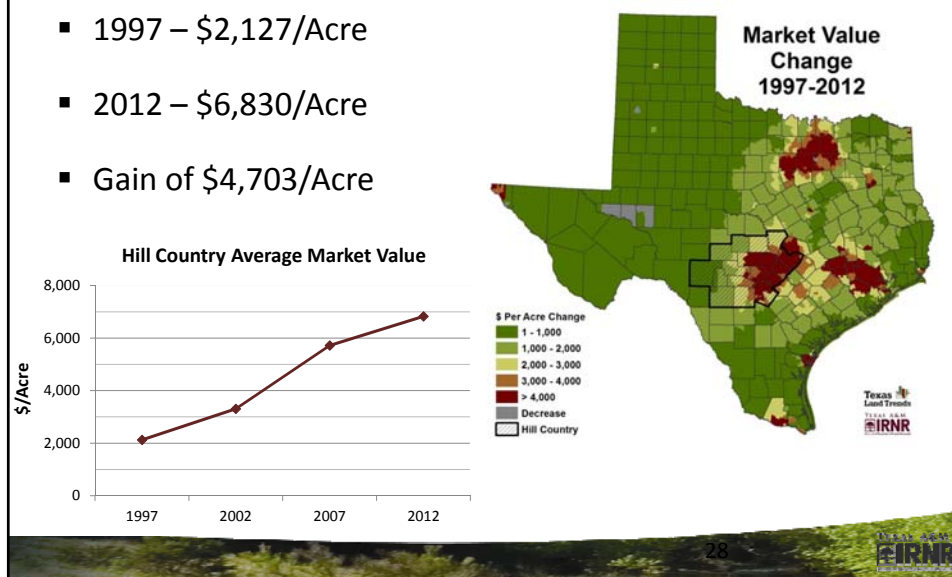


Market Value - *Driver*

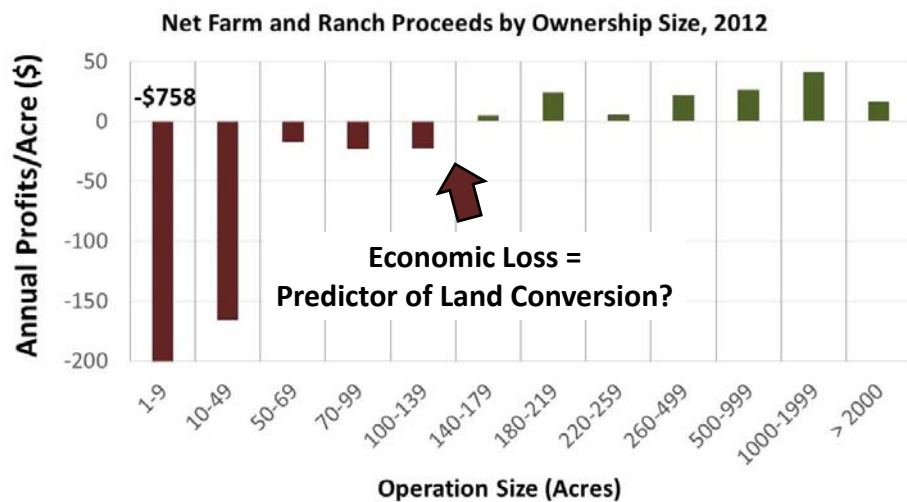


Market Value - *Hill Country*

- 1997 – \$2,127/Acre
- 2012 – \$6,830/Acre
- Gain of \$4,703/Acre

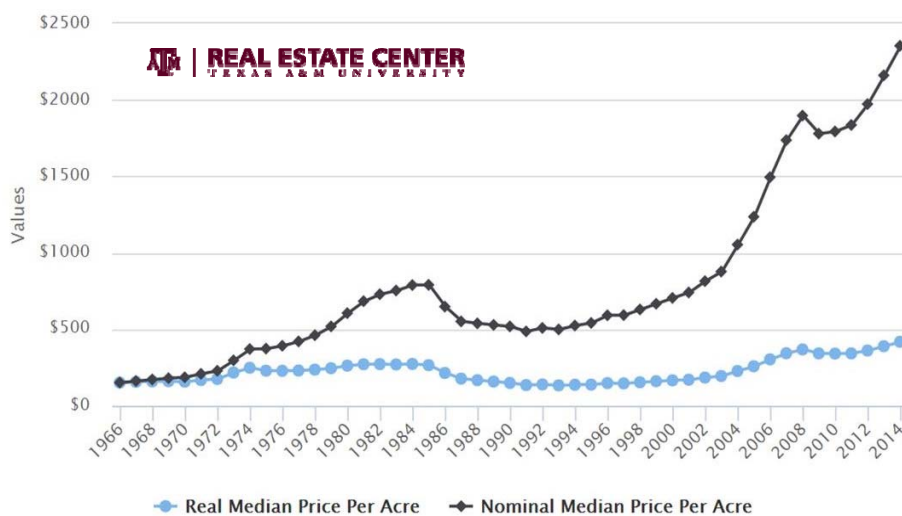


Farm and Ranch Proceeds - *Driver*

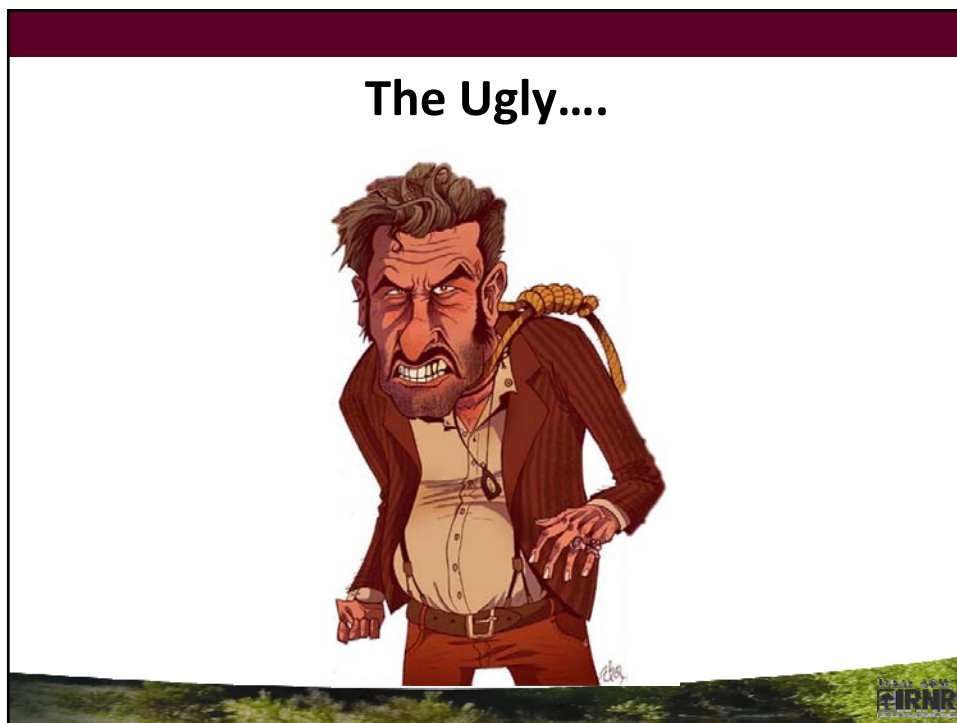
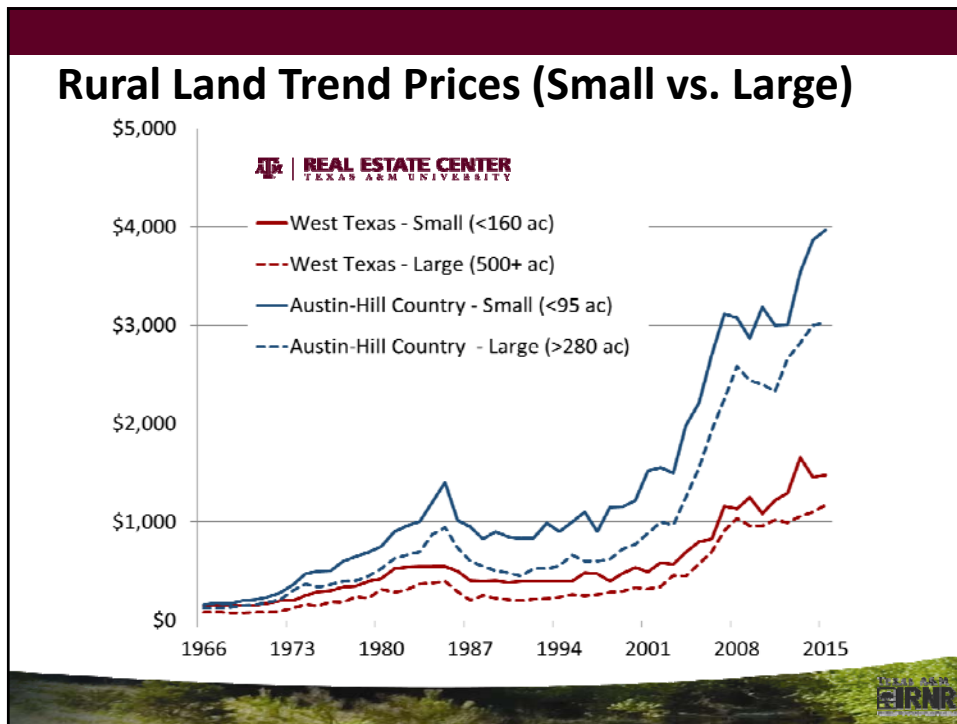


29

Rural Land Trend Prices



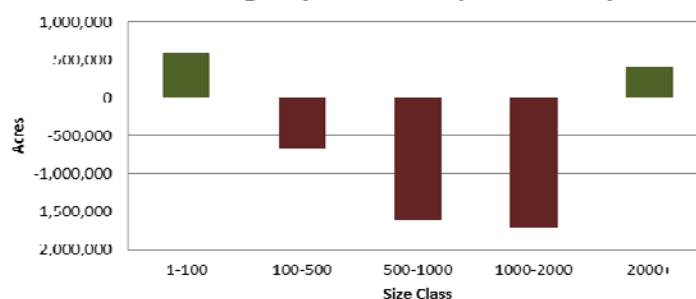
30



Ownership Size - Acres

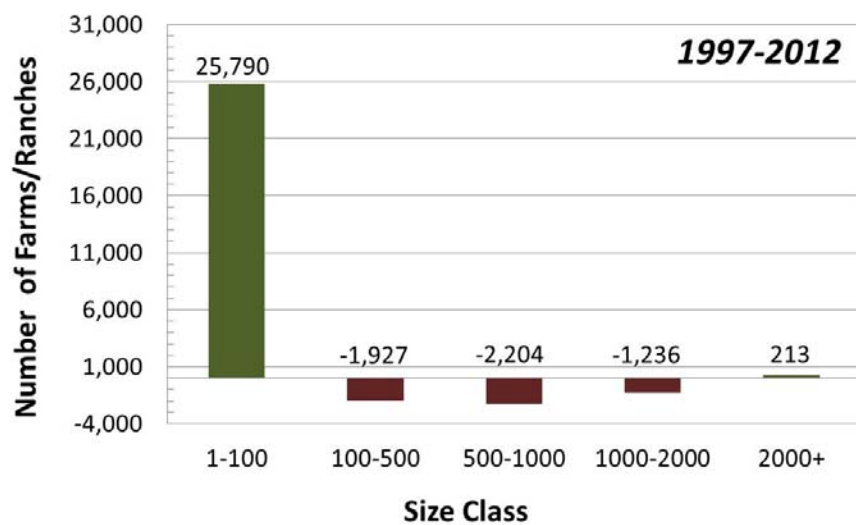
- Ownership size = fragmentation
- Increase (500K acres) of <100 acre farms
- Decrease (4M acres) of 100-2000 acre farms
- Increase (400K acres) of >2000 acre farms

Acres Change By Size Class (1997-2012)

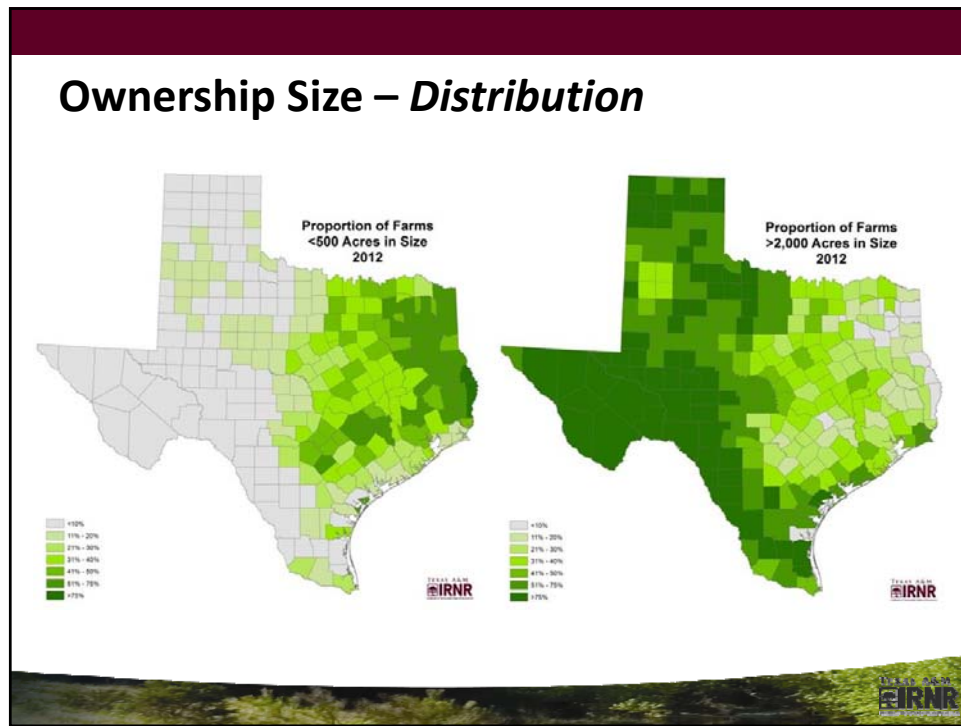


33

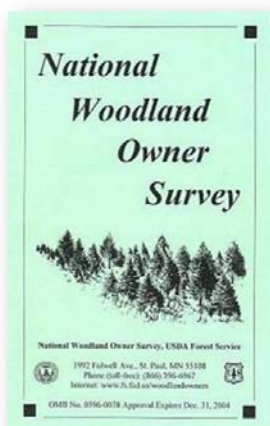
Ownership Size – Number



34



The Data...



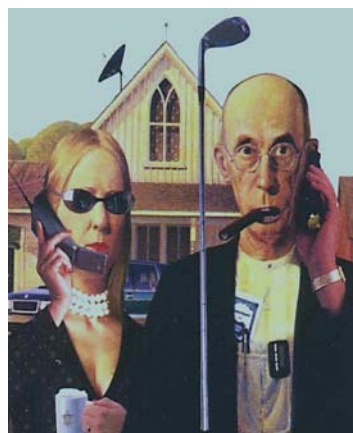
Landowner Demographics

- In 2007, the average farmer – 57 years old; average forest landowners – 65 years old.
- During the next two decades, the U.S. will witness the largest intergenerational transfer of rural lands in its history.



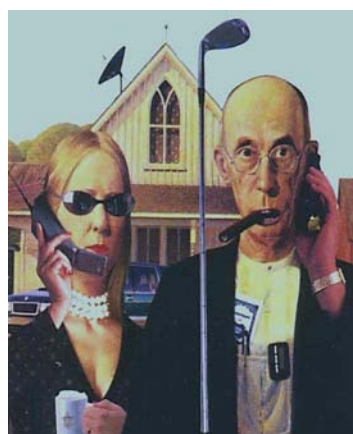
Landowner Demographics

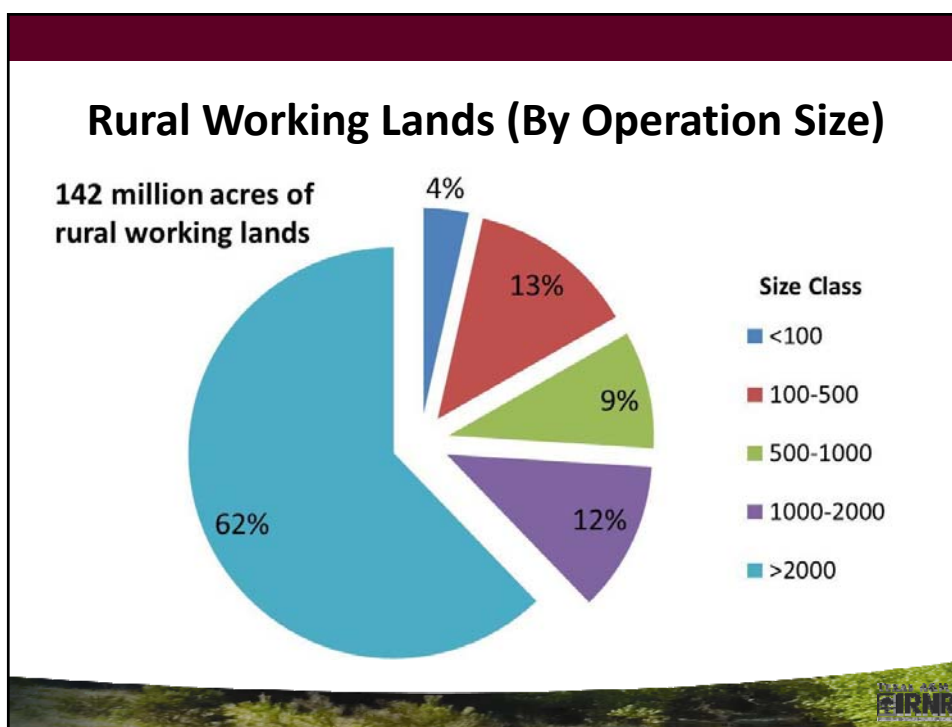
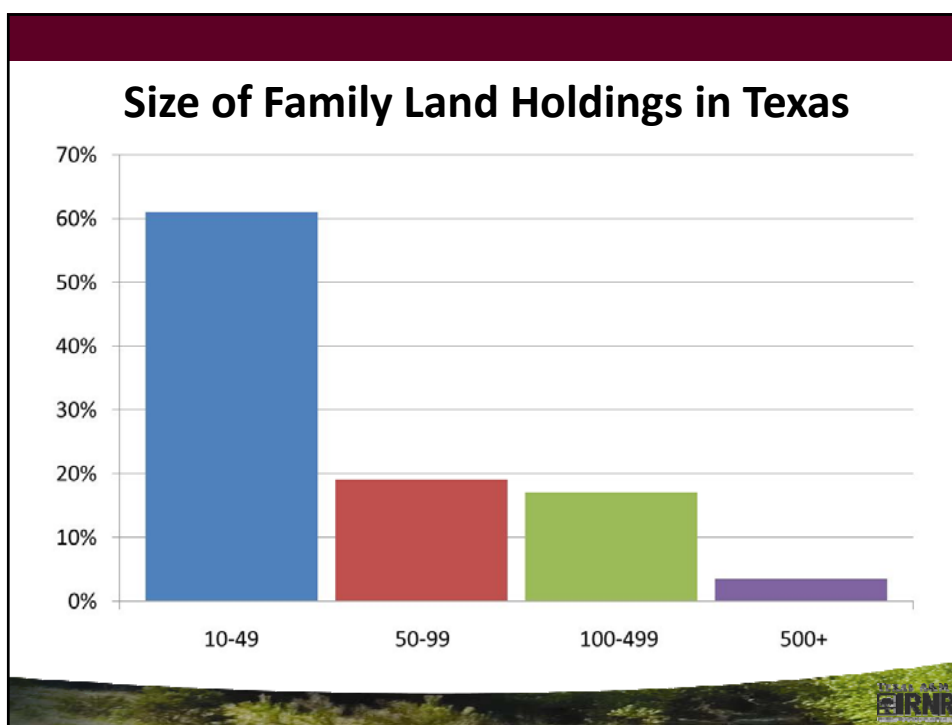
- Future private landowner?
- Younger generation less tied to the land.
- Concerns - estate taxes on holdings
- Buyers/developers who want to make a better return on their investments than farming or ranching can provide.

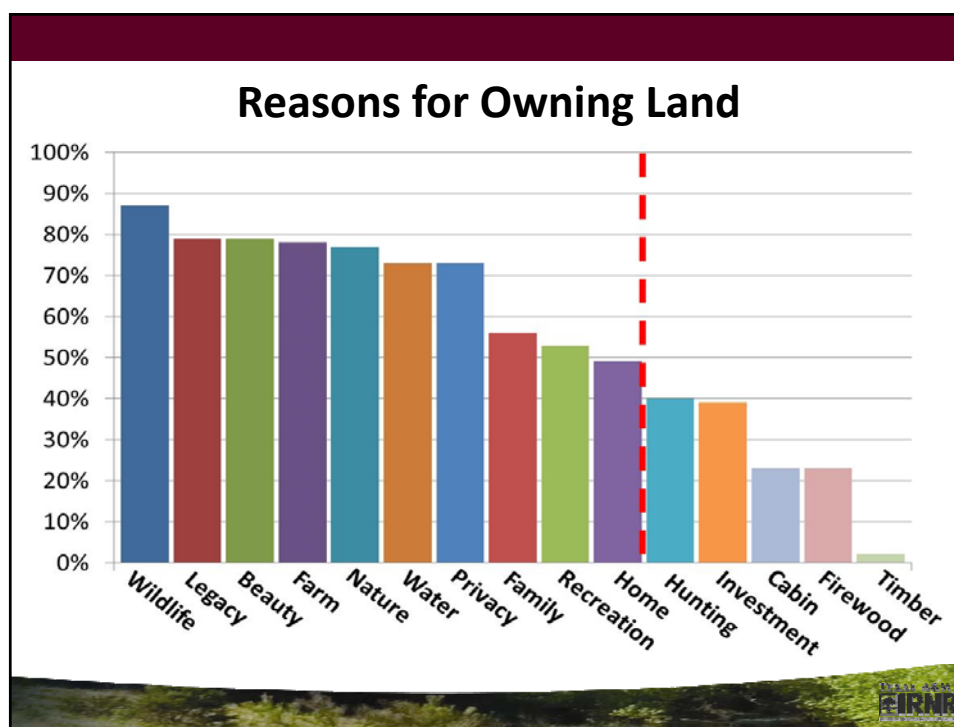
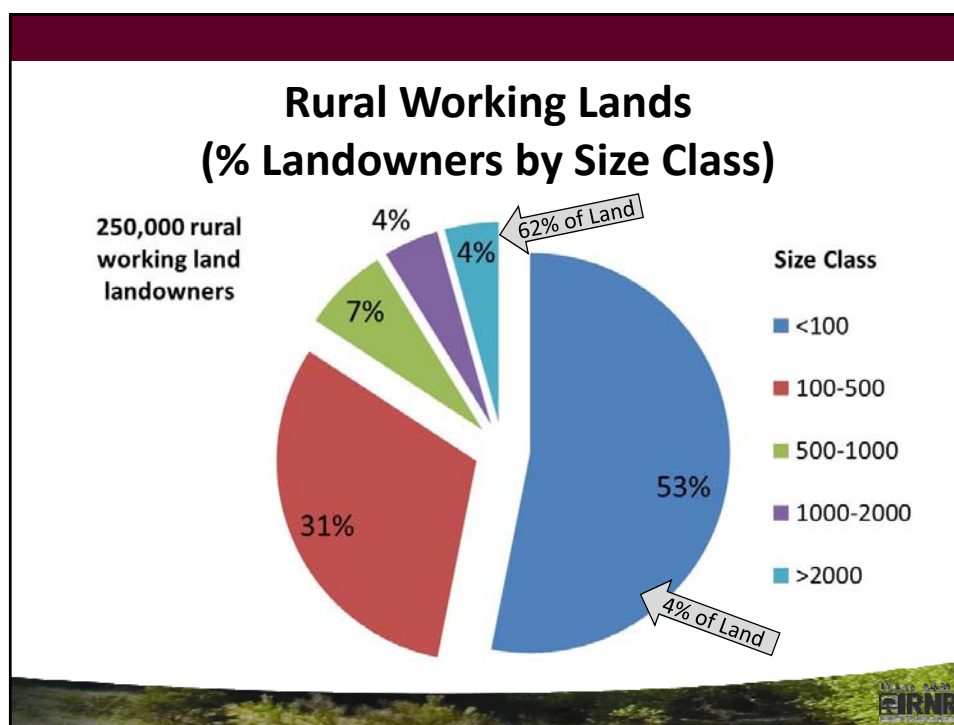


Landowner Demographics

- Absentee ownerships
 - 45% of ownerships
- Part of farm
 - 42% of ownerships
- New ownerships (<10 yrs)
 - 25% of ownerships

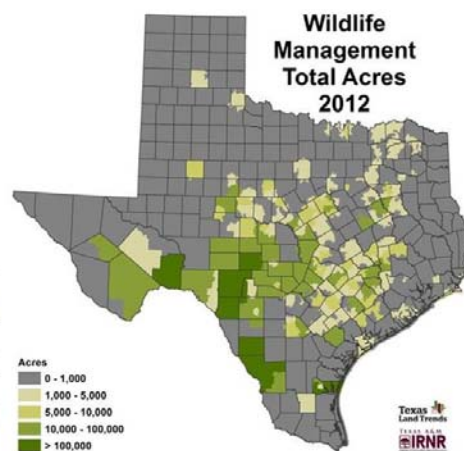
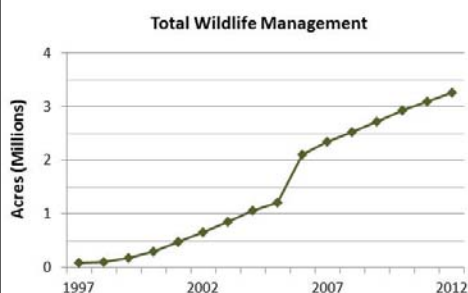






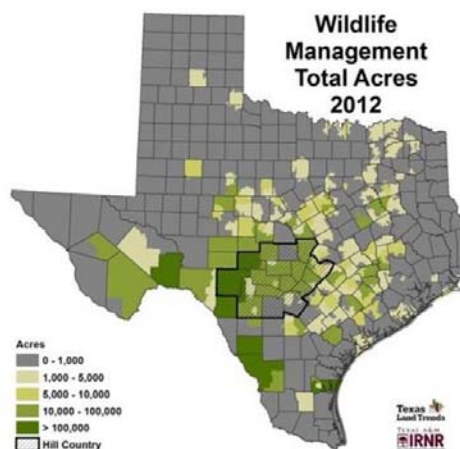
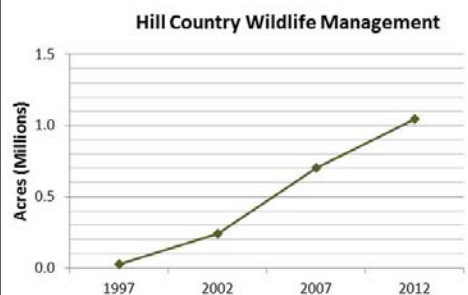
Wildlife Management: Statewide

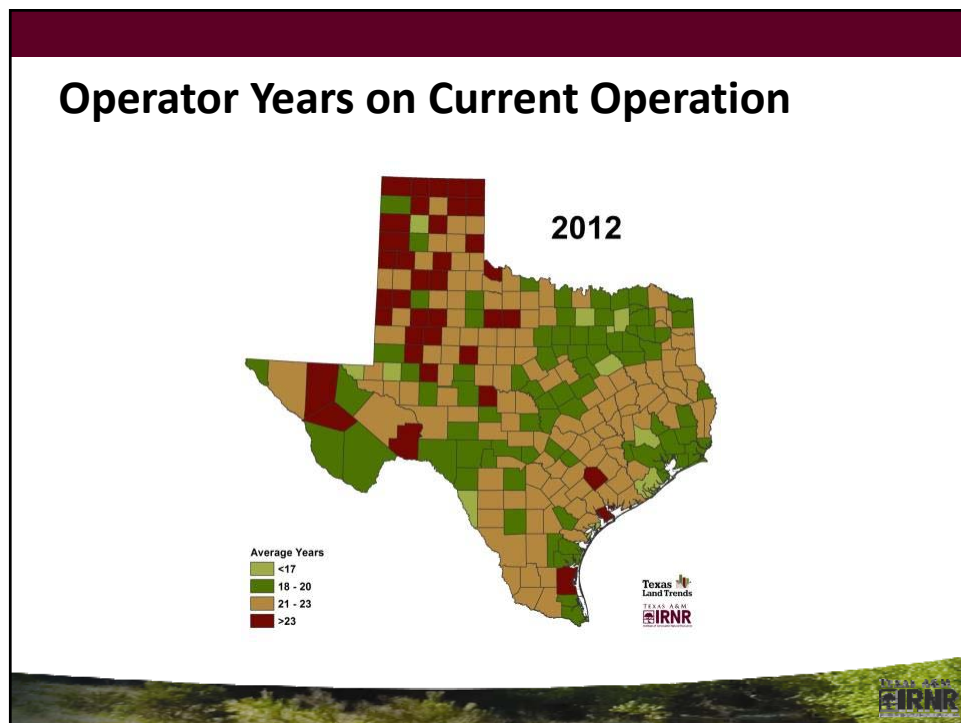
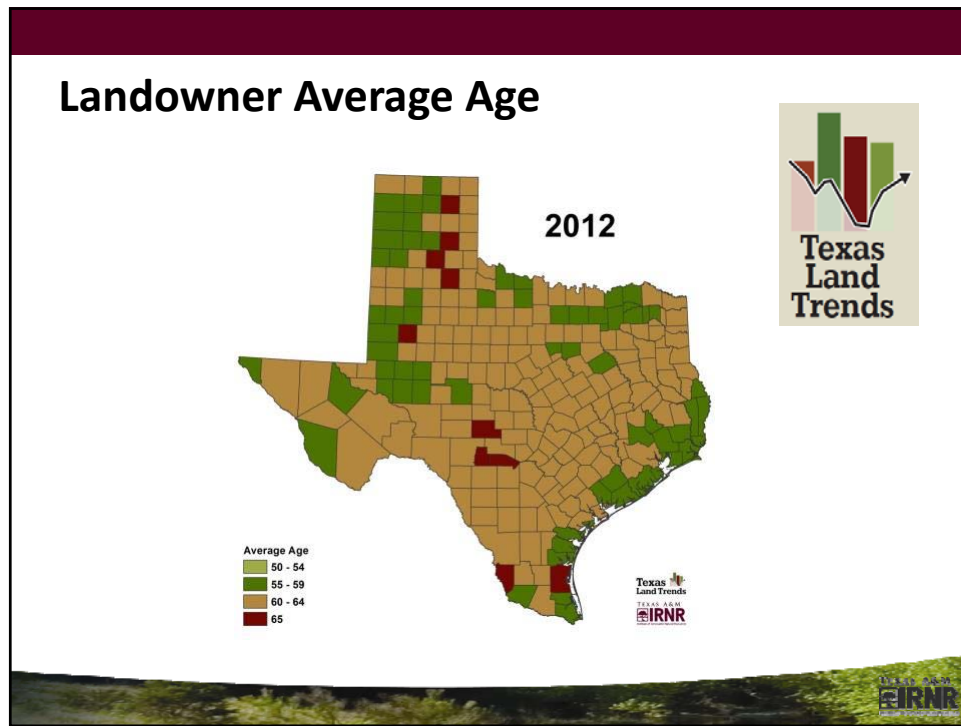
- 1997 – 92K acres
- 2012 – 3.3 Million acres
- Gain of 3.2 Million acres



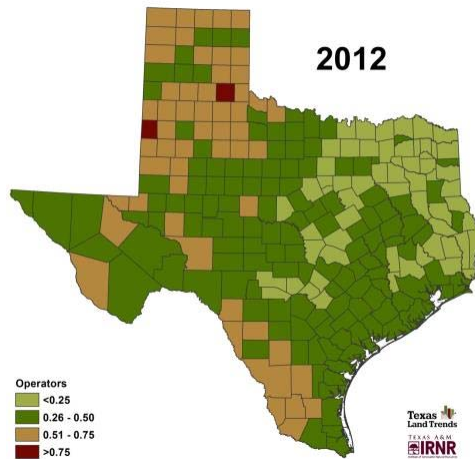
Wildlife Management: Hill Country

- 1997 – 28K acres
- 2012 – 1M acres
- Gain of ~1M acres





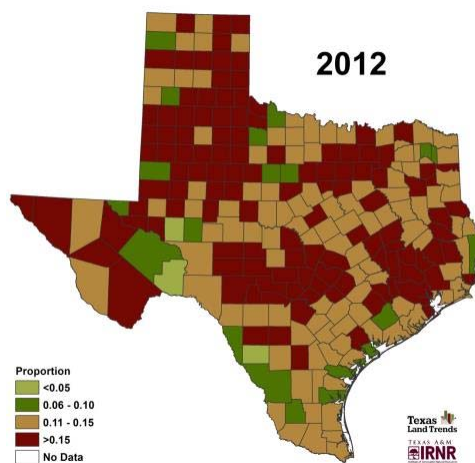
Absentee Operators (Ratio)



49

TEXAS A&M
IRNR

Female Operators (Ratio)



50

TEXAS A&M
IRNR

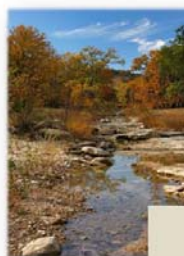
The Challenge...

- **Rapid Change in Rural Landscapes.** *How do we maintain rural lands with increasing human population?*
- **Different Actors – Landowners and Urban Texas.** *How do we engage broader audience?*
- **Game Changers – Water, T&E, and Energy.** *How do we balance demands? How do we take these challenges and create opportunities?*



The Grand Challenges...

- **Changing Places** – Loss of working lands, fragmentation and conversion.
- **Changing Perspectives** – Aging landowners, different objectives, largest intergenerational transfer.
- **Changing People** – Increasing human population, shifts in ethnicity and urban residents.
- Communicate the public benefits of private lands...





TEXAS A&M
UNIVERSITY
AGRICULTURE & LIFE SCIENCES



TEXAS A&M
AGRI LIFE
RESEARCH/EXTENSION

*Promoting Private Lands Stewardship through
Research, Education, and Policy.*

<http://irnr.tamu.edu/>
<http://txlandtrends.org/>



TEXAS A&M
IRNR
Institute of Renewable Natural Resources

Roel R. Lopez
roel@tamu.edu



TEXAS A&M
IRNR
Institute of Renewable Natural Resources