

Harvey's Economic Impact on Aransas County

November 14, 2017

**Rockport-Fulton Chamber of
Commerce Luncheon**



SOUTH TEXAS ECONOMIC
DEVELOPMENT CENTER

Hurricane's Costs

List of impacts from immediate to long term ...

- Casualties (economic losses due to deaths/injuries)
- Property damages (windstorm and flood damage)
- Infrastructure damages (industry and public facilities)
- Disruption to local business and economic activity before full recovery
 - **Evacuation Period:** Temporary shutdown of most businesses
 - **Recovery Period:** *Transitory loss of operational facilities and infrastructure, customer base, and displaced workforce*
- Permanent loss of local businesses and residents
- Permanent increase in insurance cost (homes and businesses)

Disaster Areas

TAMUCC UAS began surveillance 2 weeks after landfall ...



Location: Holiday Beach community in Rockport, Texas.

Community Profile

Sources of vulnerability to storms ...

- The median age is remarkably high at 49, compared to 35 for Nueces County
 - Residents aged 60 years and older (33%) and Winter Texans may be less likely to return
- More than one in five housing units are mobile homes that were more likely to receive wind damage
- A large portion of businesses are home-based, without an office
- 75% of households have insurance coverage, but the percentage of households applying for FEMA Individual Assistance in the wake of Harvey is among the highest
- Drawing on local officials' estimates and damage assessments, the area sustained an average loss of 26% in the total value of residential and business properties

Community Profile

	Rockport	Fulton	Aransas County
Population (2016 Census)	10,645	1,577	25,721
Median Age	47.7	50.1	49
Housing Units	6,290	992	15,614
- Single-Family Units	3,993	81	10,145
- Attached, Multi-Family Units	1,470	463	1,979
- Mobile Home	746	28	3,288
- RV, boat, van	81	0	202
Annual Business Sales (\$Mil)	\$779	\$106	\$885
No. of Businesses	1,316	775	2,712
Business Establishments	388	228	615
Property Damage from Harvey:			
% FEMA Individual Assistance	68%	65%	45%
% Destroyed (equivalence)	35%	33%	26%

Sources: 2016 Census, EMSI, FEMA, and South Texas Economic Development Center.

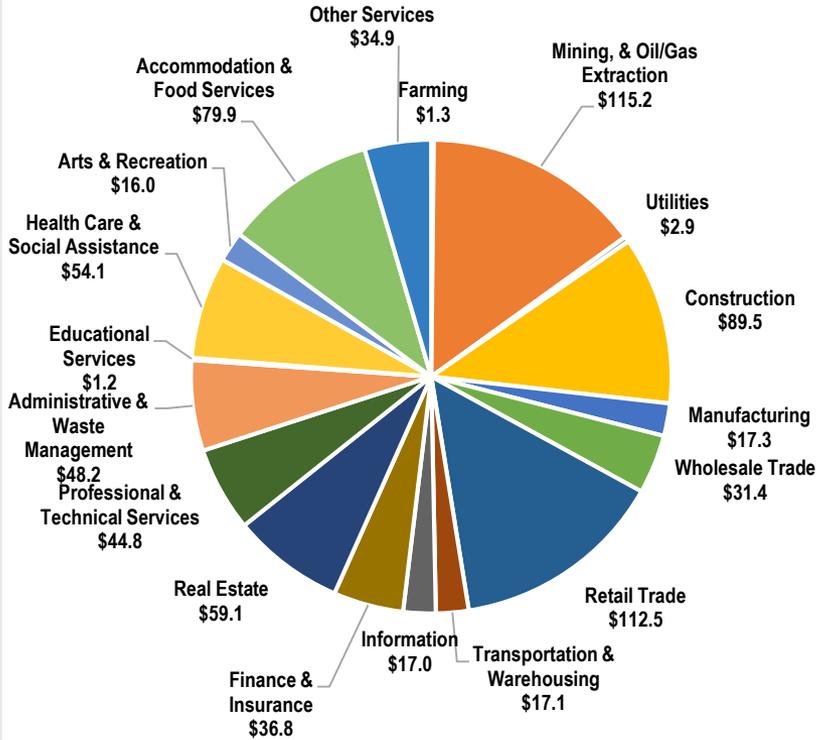
Economic Profile

Aspects of resiliency ...

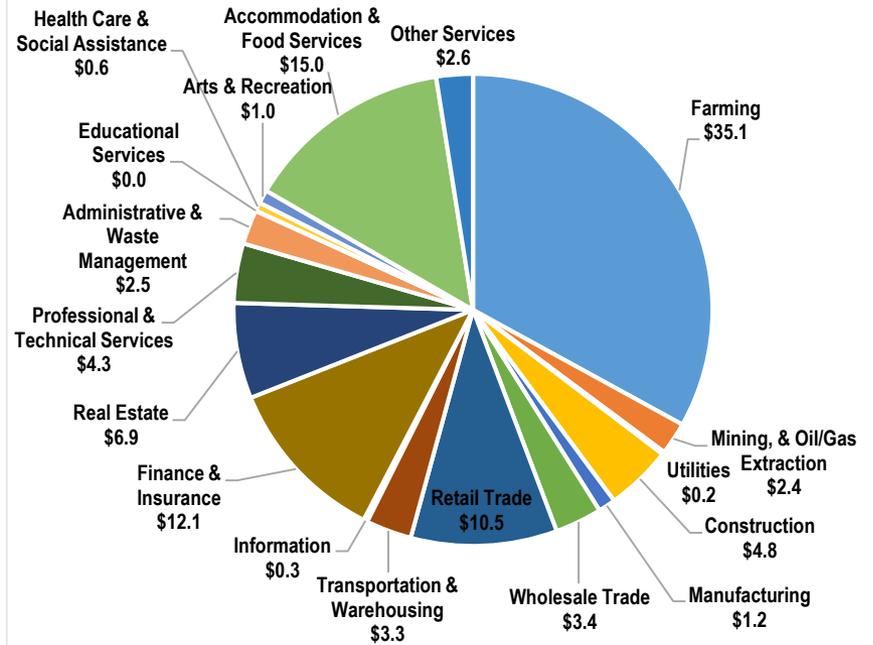
- Communities have concentration in different sectors
 - Oil & gas and construction are concentrated in Rockport, and farming is relatively large in Fulton
 - A more diverse economy is more resilient in the context of rapid recovery
 - Export industries do not rely on the local market
- Retail and hospitality (accommodation and restaurants) make up at last one in three business establishments
 - These businesses depend on the local market, so they can't fully recover without fully restoring the community

Pre-Harvey Economic Profile by Size

Rockport Economy (\$ Mil Sales)



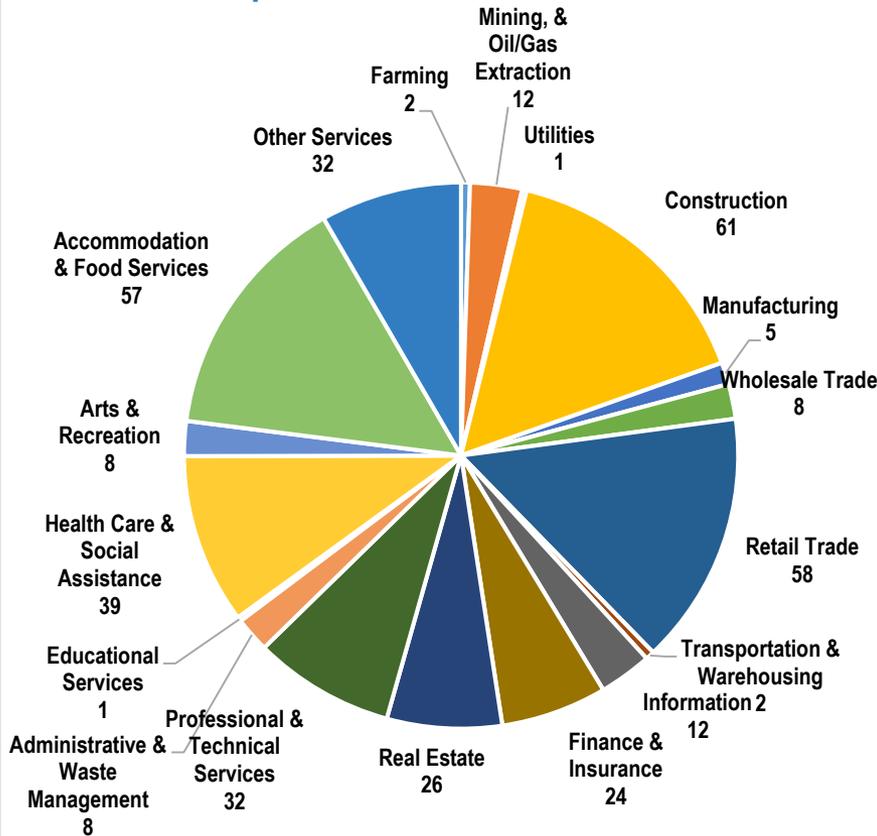
Fulton Economy (\$ Mil Sales)



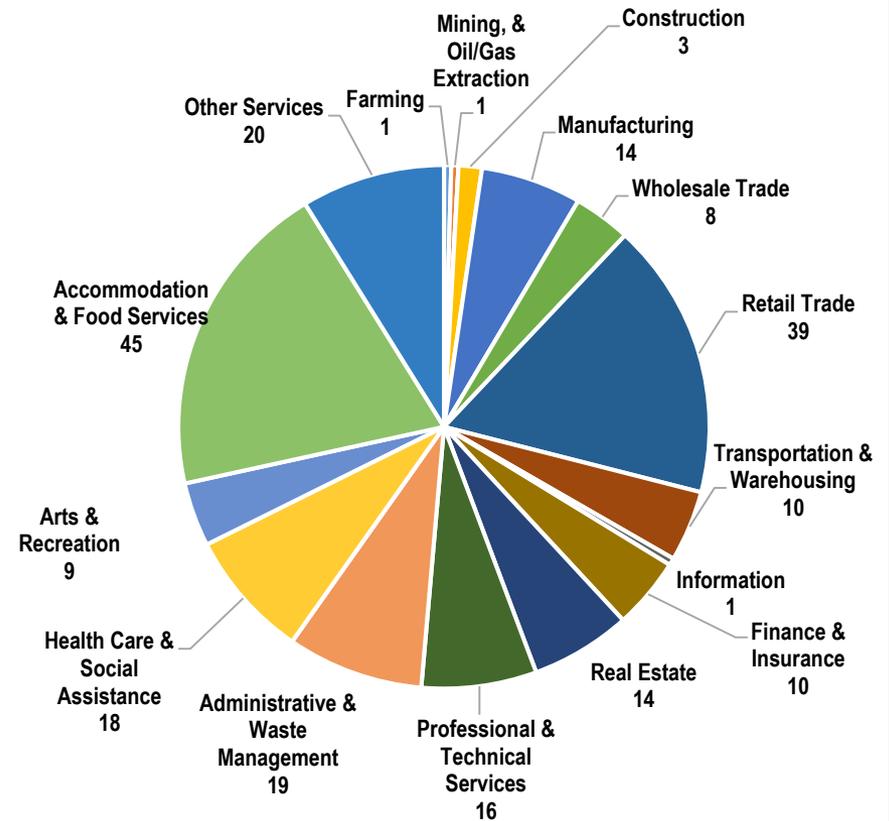
Source: EMSI, 2017.

Pre-Harvey Economic Profile by Number

Rockport Business Establishments



Fulton Business Establishments



Source: EMSI, 2017.

Harvey's Immediate Impacts

Immediate direct economic losses ...

- The majority of businesses are still closed (about half)
 - Loss of gross sales activity, including wage earnings, etc.
 - A portion of businesses/residents are displaced at least temporarily
- Loss in capital stock
 - \$90M damage to public facilities countywide (Rebuild Texas Commission)
 - Replacement costs for estimated damage to residential and business structures (26% average)

	Rockport	Fulton	Aransas County
Residential (\$ Mil)	\$327	\$52	\$812
Business (\$Mil)	\$118	\$7	\$134
<i>Total (\$ Mil)</i>	<i>\$446</i>	<i>\$59</i>	<i>\$1,035</i>

Recovery Scenarios

Simulations of direct impact and response over time with a regional economic model

- 3 Phases:

- **Direct Impact (immediate):** Loss of economic activity and capital
- **Recovery (transitory):** Rebuilding efforts take effect
- **New Normal (equilibrium):** Long-run occurs years later

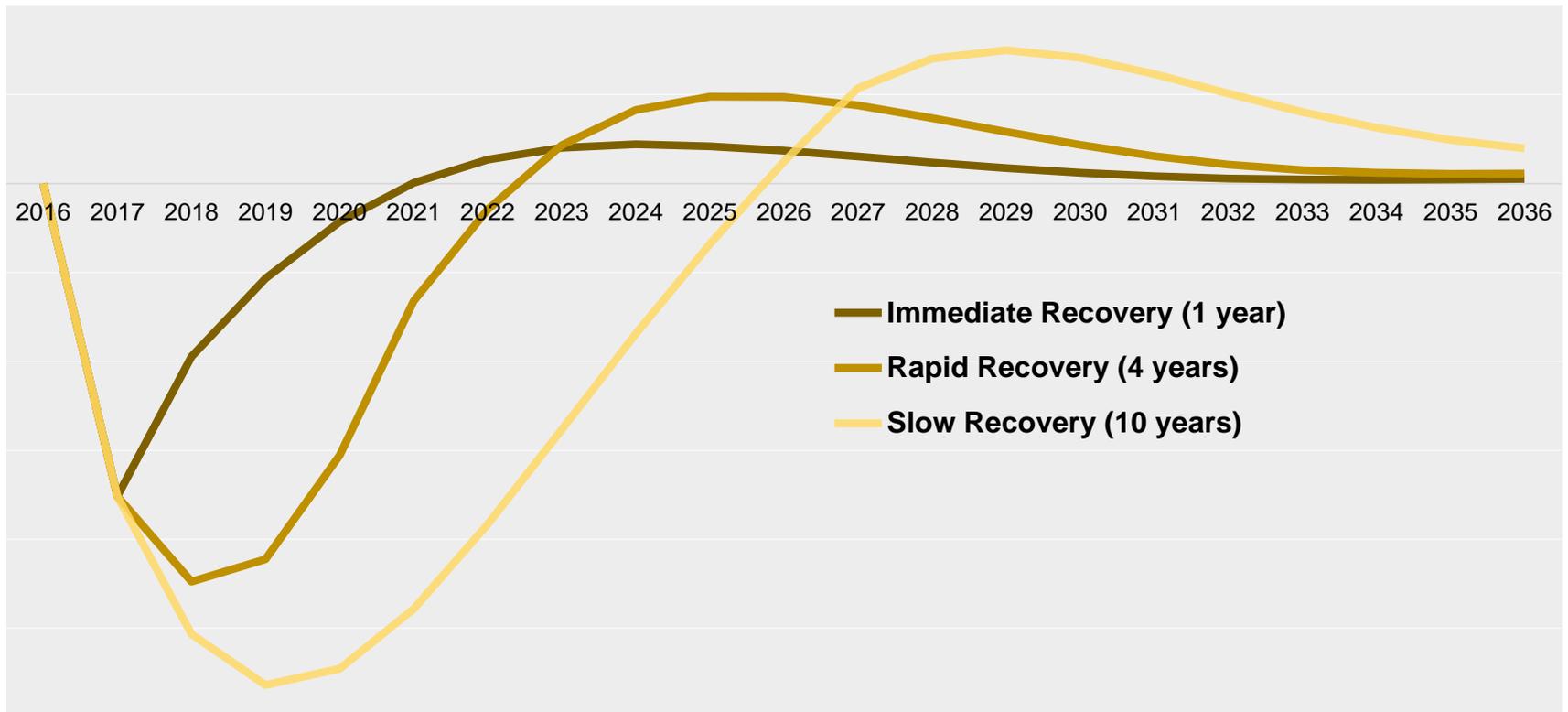
- Model Assumptions:

- All industries shut down when the area was hit
- Immediate loss of residential and nonresidential capital stock (values correspond to observed damages of homes and capital investment required for business operations)
- Separate capacity (resources) constraints for local and regional economies
- Three alternative speeds in restoring businesses and residential and nonresidential capital losses (100%; 25%; 10% per year)

Typical Recovery Paths

Cumulative losses of business sales will double if recovery lasts for 4 years instead of one year, and double again if recovery lasts for 10 years instead of 4 years ...

Output (\$ Mil Sales)



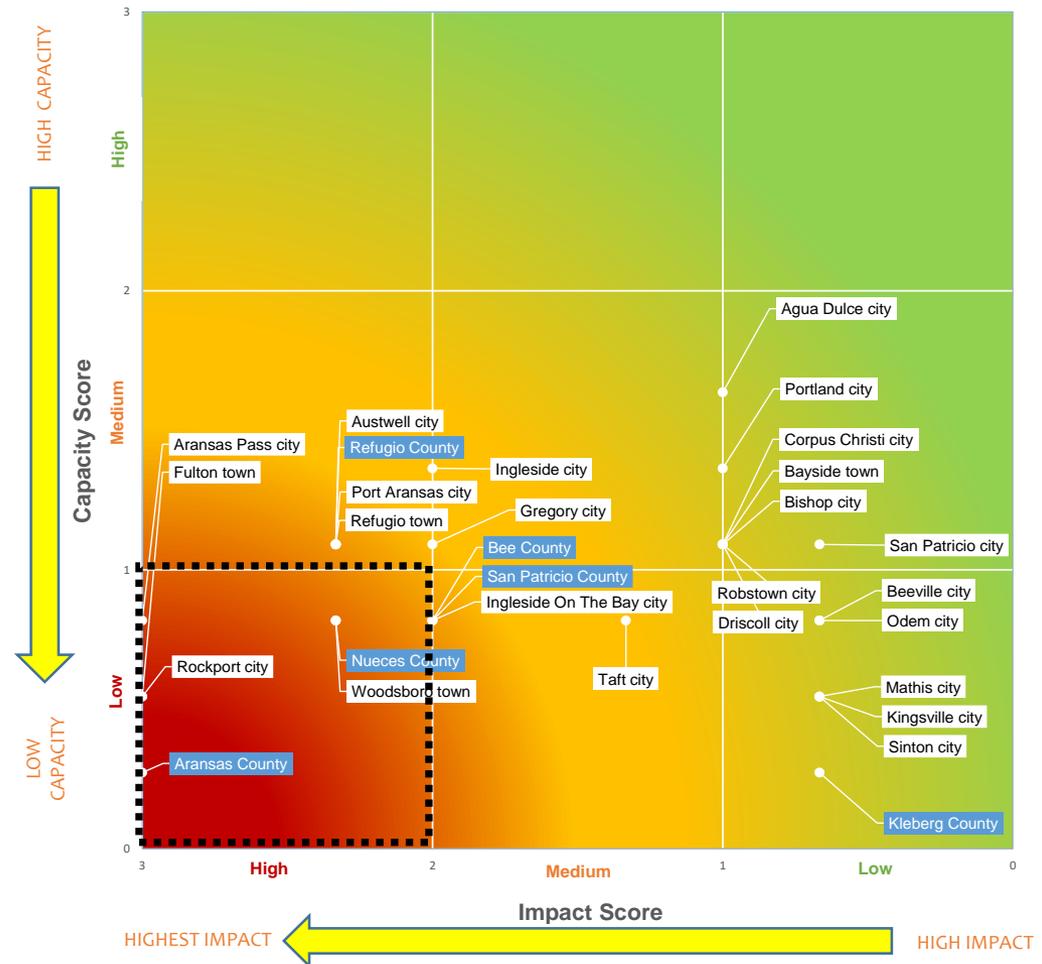
Source: South Texas Economic Development Center.

FEMA Assessments of Recovery

Implication of communities with highest storm impacts and lowest capacity for recovery ...

Coastal Bend Communities with highest storm impacts and lowest capacity:

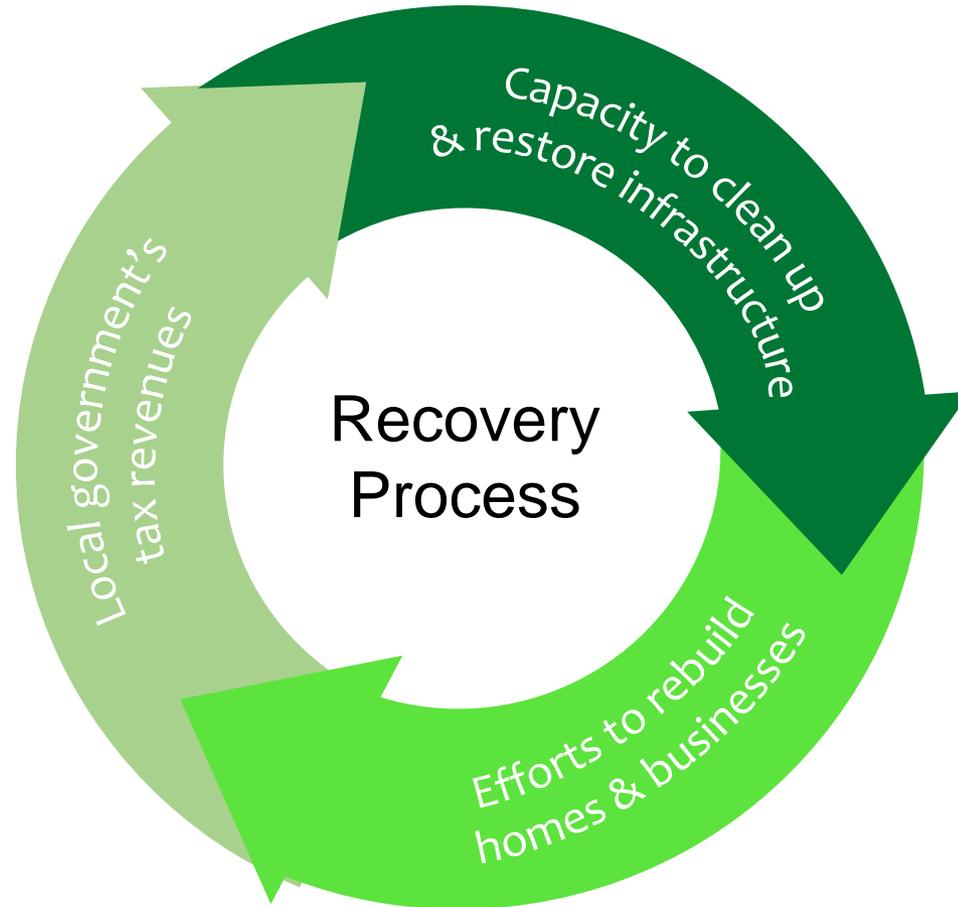
- Aransas Pass
- Fulton
- Rockport
- Woodsboro



Source: Community Planning and Capacity Building RSF, FEMA, October 31, 2017.

Vicious Cycle

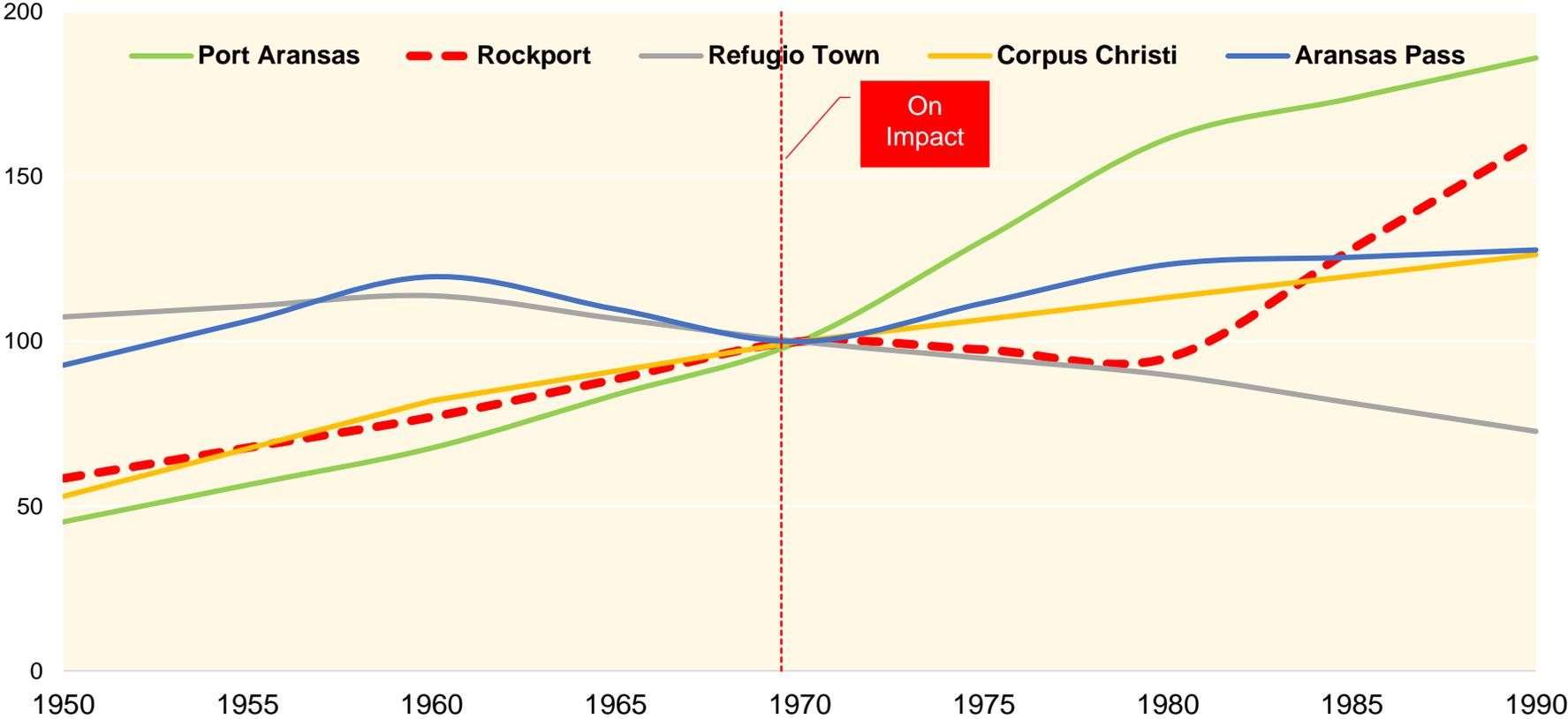
Why race against time for communities with high storm impacts and low rebuilding capacity?



Lesson from Celia of 1970

The storm only extended existing upward or downward momentum ...

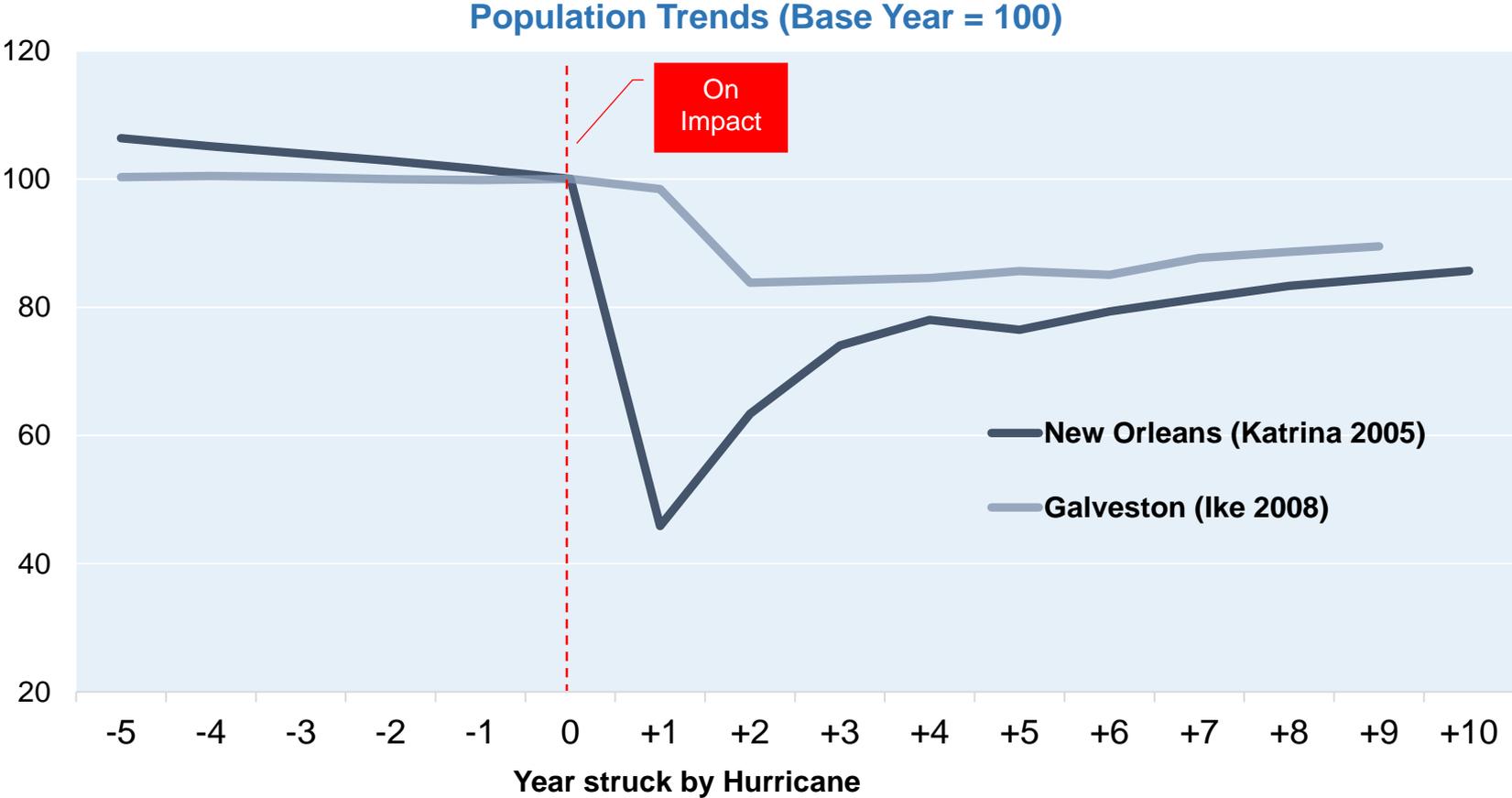
Post-Celia Population Trends (Year 1970=100)



Sources: U.S. Census Bureau, and South Texas Economic Development Center

Lessons from Recent Storms

Both cities experienced a permanent loss of population by >15%



Source: U.S. Census Bureau.

Thank you!

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