

Overcoming Social and Environmental Vulnerability:

A Working Environment Approach



Working Environments in the Gulf Coast: A definition

Working environments

- *allow and create healthy ecosystem,*
- *sustain regional economies and family income,*
- *protect communities.*



Vulnerability: Different perspectives

- Geo-physical: wetlands loss, hurricanes, oil spill
- Local economies and household income
- Broader social criteria



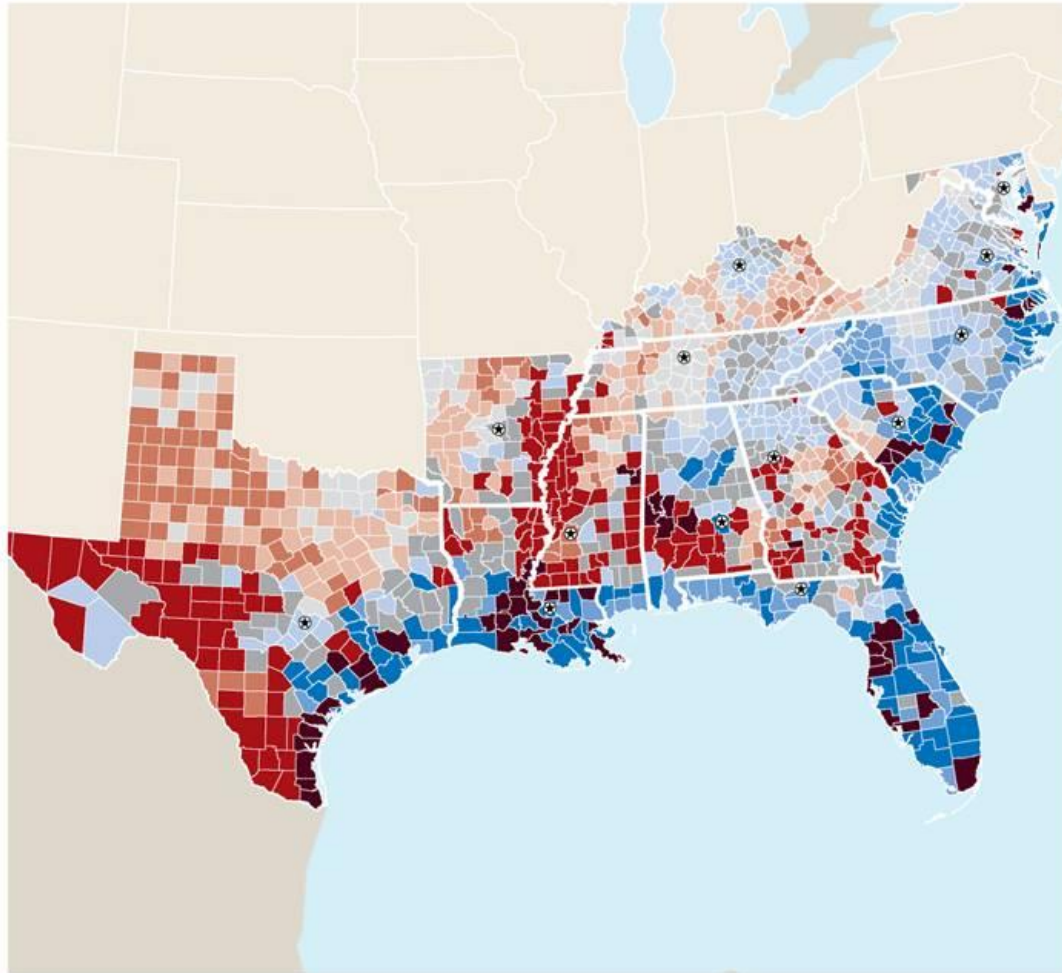
Environmental vulnerability

- Wetlands and land loss: 272 square miles in 10 years
- Damages from storms: \$250 billion over six years
- Damages from oil spill and industry



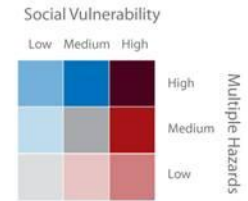
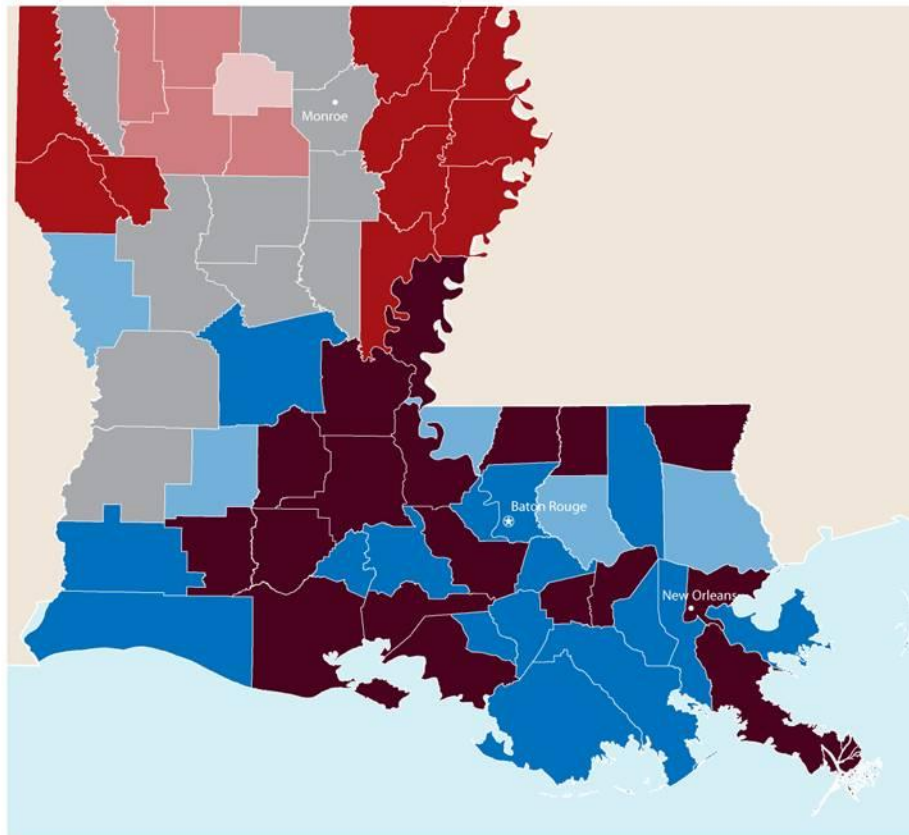
Social Vulnerability Index

Social Vulnerability to Multiple Hazards Southeastern Border States



The Social Vulnerability Index (SVI) examines both the potential impacts of natural hazards and which populations are most likely to be negatively affected. The SVI overlays social variables such as income, age, race, and gender over climate change-related hazards.

Social Vulnerability to Multiple Hazards | Louisiana



Geospatial analysis and mapping provided by the Hazards and Vulnerability Research Institute at the University of South Carolina

Social Vulnerability Index- Southeast

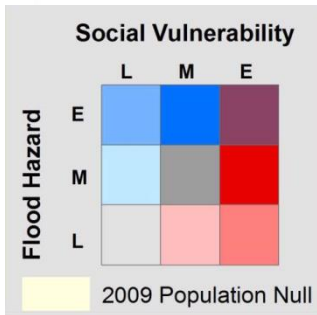
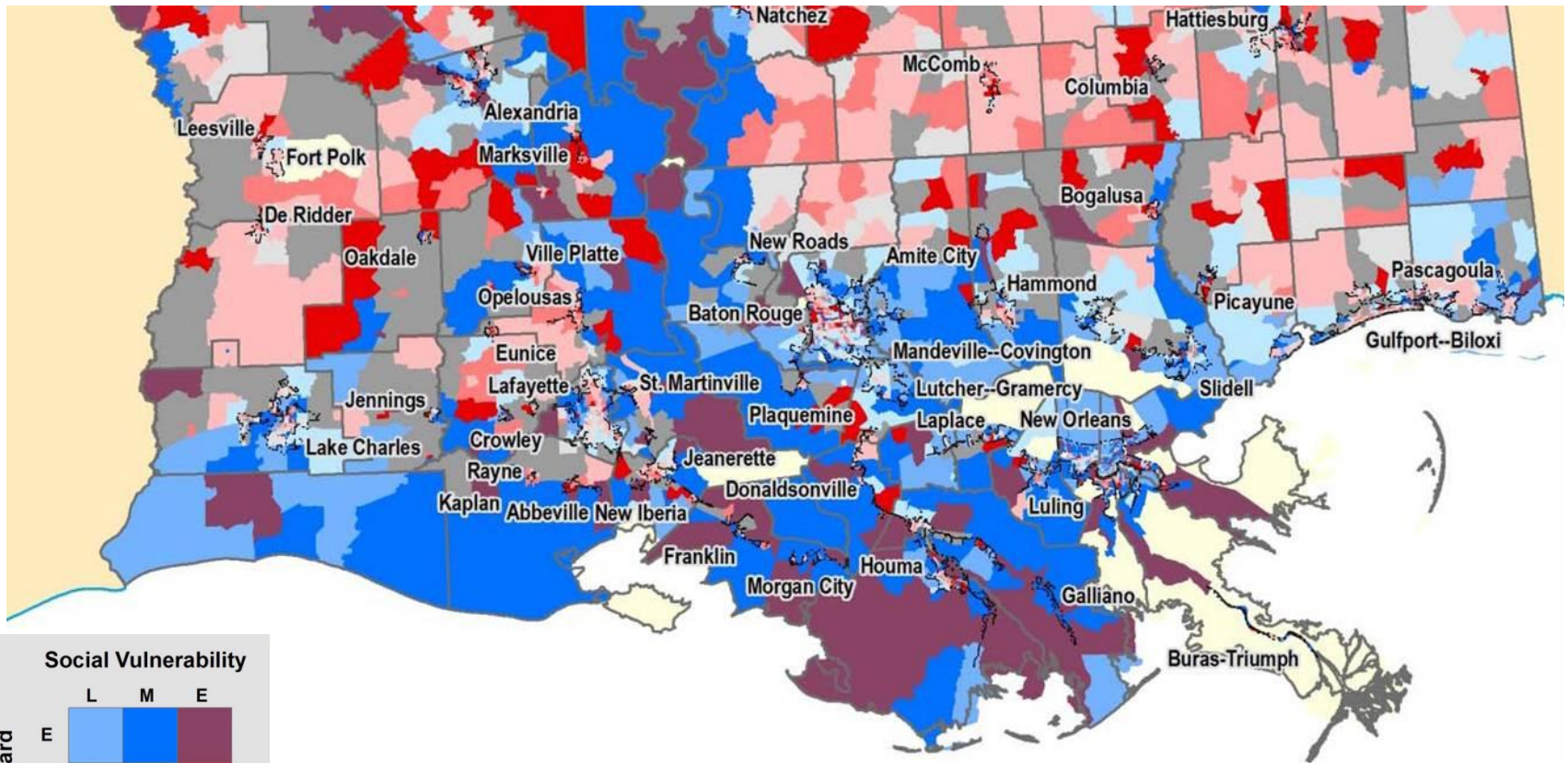
Component	Variable	% variance explained	Most influential variable/correlation	
1	Wealth	23.09	Per capita income (0.93), median rent (0.90), % poverty (-0.67)	
2	Age	14.64	People per housing unit (0.84), pop over 65 (-0.88), median age (-0.89)	
3	Race	10.79	% African American (0.87), % female headed household (0.84)	
4	Ethnicity	6.56	% Hispanic (0.72)	
5	Rural	5.1	% employed in natural resources extraction (0.55), % rural farm residents (0.50)	
6	Special needs populations	5.0	Hospitals per capita (0.70); Nursing home residents (0.62)	
	7	Gender	4.6	% females (0.91)
	8	Employment	4.6	% employed in utilities, transportation, or communications (0.73)
Total Variance Explained		74.40*		

gender, ethnicity, rural farm

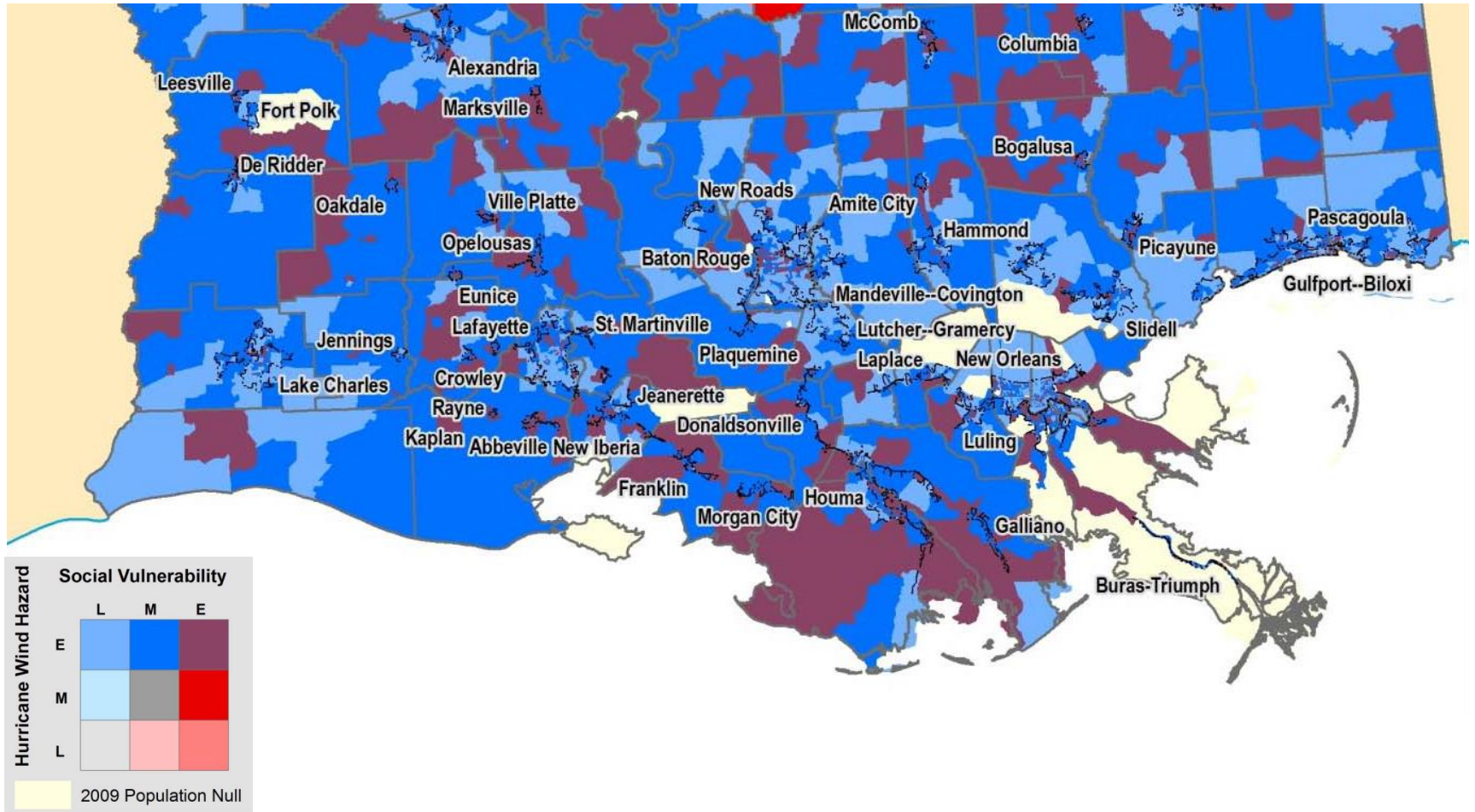
*Eight distinct social indicators explain 74% of the variance in the data for social vulnerability to climate hazards. These components include wealth, age, race and populations, special needs populations, and employment.

Equation for SoVI-SE = (-) Factor 1 + (|) Factor 2 + Factor 3 + Factor 4 + Factor 5 + Factor 6 + Factor 7 + (-)Factor 8

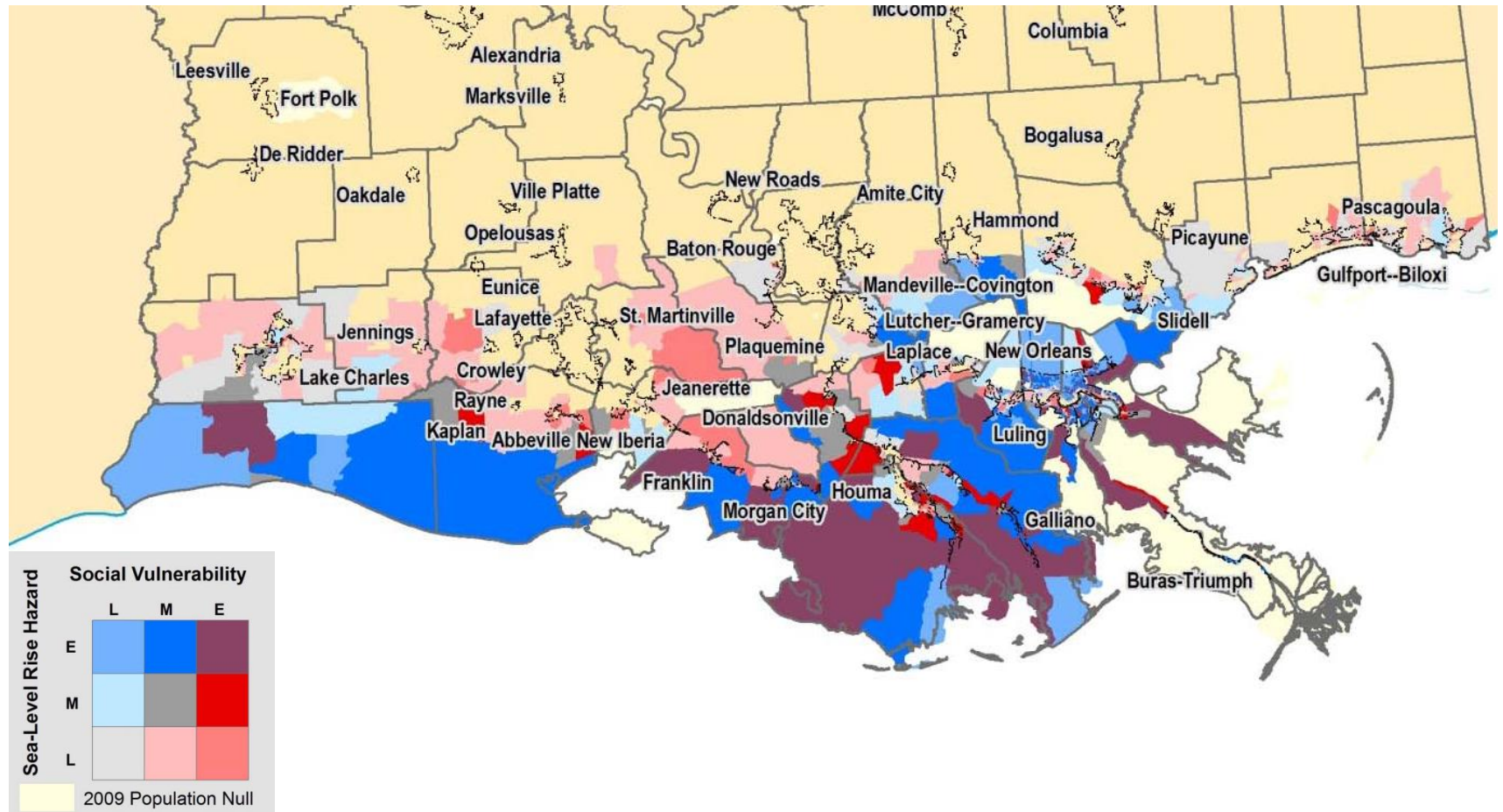
Social vulnerability to flood hazard



Social vulnerability to hurricane-force winds

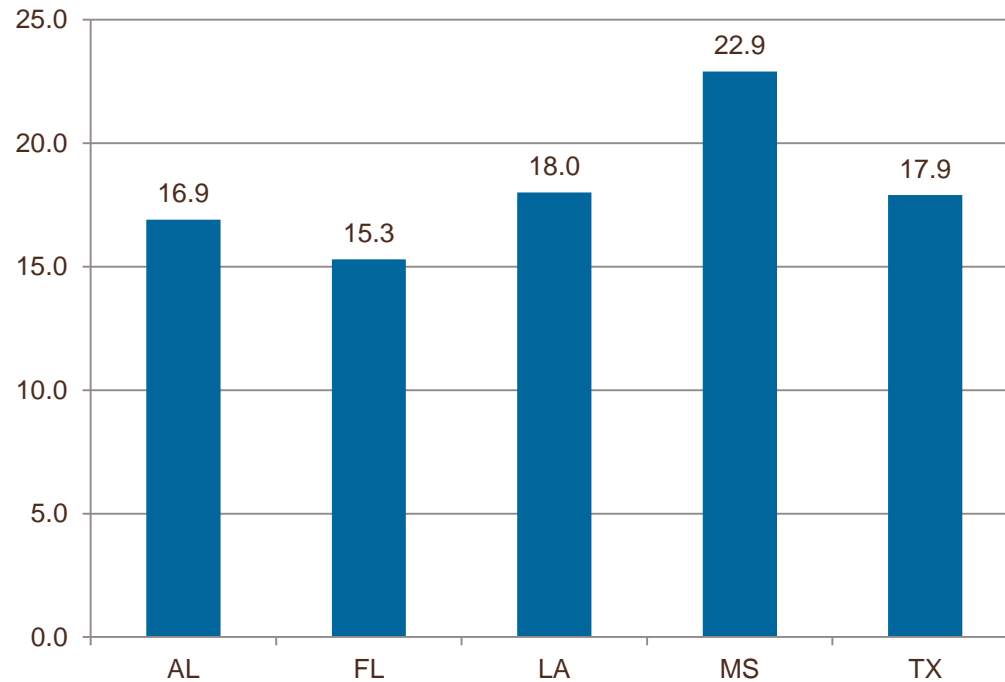


Social vulnerability to sea-level rise



Poverty

Percentage of People in Poverty
(2-year average 2009-2010)



Source: US Census Bureau, *Income, Poverty and Health Insurance in the United States: 2010*

Rising House Costs Outstrip Wages



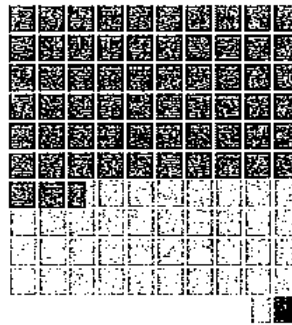
From: Mirror on America, p. 7, Oxfam America, © 2008

Tourism

WORKING GULF

Oil dominates revenues from the Gulf, but the employment giant is tourism. Louisiana, regional leader in commercial fishing before the spill, normally harvests a third of the U.S. shrimp and oyster catch.

Annual Revenue
\$101.5 billion



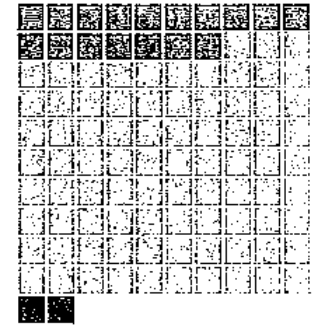
1 block = \$1 billion

OIL AND GAS
62.7 **107,000**

TOURISM
38.1 **524,000**

COMMERCIAL FISHING
0.7 **14,000**

Jobs*
645,000



1 block = 6,324 jobs

*Estimates

Chart credit: National Geographic, Oct. 2010, p 53)

Millions of visitors travel to the Gulf Coast each year, spending more than \$100 billion across the region.

Social vulnerability and restoration

- *” These new decision-making processes should include consideration of disproportionate impacts and outcomes often faced by economically and socially vulnerable populations from natural hazards and environmental degradation.”*
- **Gulf of Mexico Regional Ecosystem Restoration Strategy**
Gulf Coast Ecosystem Restoration Task Force
December 2011

Resilience through Restoration (I)

- multiple lines of defense
- mitigates wetlands loss
- preserves habitats
- protects communities



Resilience through Restoration (I)

- Protects livelihoods, creates jobs, offers opportunities
 - \$1 million investment creates 28 jobs
 - Local hiring is critical
 - Workforce training



Housing Solutions



Terrebonne Readiness and Assistance Coalition's
"Louisiana Lift House"

Big Idea #1

Critical challenge in environmental agenda is not conservation and preservation.

It's about sustainability with development.



Big Idea #2

Critical challenge in development agenda is not economic growth and overcoming poverty.

It's about development with sustainability.



Thank You for your
engagement, questions,
and feedback!

