

STUDY TITLE: Assessing Impacts of OCS Activities on Public Infrastructure, Services, and Population in Coastal Communities Following Hurricanes Katrina and Rita

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CONTRACT NUMBER: M07AC12489

SPONSORING OCS REGION: Gulf of Mexico

APPLICABLE PLANNING AREA(S): Central and Western

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BACKGROUND: One of the present challenges to BOEM in managing OCS-related activities is the impact that hurricanes Katrina and Rita have had and will continue to have on the coastal communities that service OCS-related enterprises. Many recent studies have investigated economic impacts of OCS-related activities on the larger U.S. Gulf Coast economy, long-run socioeconomic change on macro-economic variables for coastal parishes, and parish-level fiscal and public service impacts related to OCS activities. Each of these studies assesses the economic, fiscal, and public service impacts from a continuous annual evolution of OCS-related activities. Unfortunately, due to Katrina's and Rita's massive destruction of public infrastructure and private capital investment in these coastal communities, economies have struggled to rebound to pre-storm conditions and made historical modeling approaches to address future impacts more challenging.

OBJECTIVES:

- 1) Develop a socio-economic baseline and assessment of public sector infrastructure and services of coastal communities in Louisiana.
- 2) Develop a Coastal Community Impact Model (CCIM) for assessing public sector revenue and expenditure impacts from OCS-related activities.
- 3) Construct and apply OCS-related or post-storm development (or both) (or policy) scenarios to assess short run economic impacts and long run impacts on public service revenue and expenditure in coastal Louisiana communities after hurricanes Katrina and Rita.

DESCRIPTION: Research evaluated several techniques to understand socio-economic change brought about by hurricanes Katrina and Rita. A spatial shift-share analysis technique was applied to tease out spatial economic change driven by these natural disasters. Further, panel and quantile regression approaches were used to measure the Louisiana coastal labor markets and local government changes.

SIGNIFICANT CONCLUSIONS: After hurricanes Katrina and Rita, parishes with deepwater ports, and parishes along the Interstate 10 corridor, in Louisiana showed measurable employment gains in Mining employment gains in these regions showed a positive spillover effect to neighboring parishes. Parishes tended to use their most recent year's public sector expenditures when budgeting future public sector expenditures rather than use demographic or economic change. Parish governments in coastal Louisiana tended to reduce spending proportionally less as fiscal conditions worsened, compared to their proportional growth when fiscal conditions improved.

STUDY RESULTS: A statistically significant regional spatial shift share effect of employment change was found separate from the localized employment effects before and after hurricanes Katrina and Rita for the Mining sector. Louisiana coastal parishes tend to follow the Bureaucratic model for local public sector spending over the median voter model. Lafayette Parish showed much resilience in employment to short-term reductions in outer continental shelf oil and gas drilling as compared to projections suggested by the fiscal module estimates.

STUDY PRODUCT(S): Fannin, J.M., M. Schafer, and W. Keithly. 2015. Assessing Impacts of OCS Activities on Public Infrastructure, Services, and Population in Coastal Communities Following Hurricanes Katrina and Rita. U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study 2015-003. 267 pp.

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