

## **Environmental Studies Program: Ongoing Study**

**Study Area(s):** Gulf of Mexico (all Planning Areas)

**Administered By:** Gulf of Mexico OCS Region

**Title:** Estimating the fiscal, spending, and profit impacts of offshore oil and gas activities (NSL #GM-17-06)

**BOEM Information Need(s) to be Addressed:** BOEM estimates the scales and geographic distributions of economic impacts arising from Gulf of Mexico (GOM) offshore oil and gas activities for National Environmental Policy Act documents, 5-Year Program Documents, and annual U.S. Department of the Interior Economic Reports. BOEM needs more internal consistency among these analyses. BOEM also needs to improve its current methods in light of data updates and changed policies. For example, this contract shall improve upon BOEM's methods for calculating fiscal impacts in light of the implementation of Phase II of the Gulf of Mexico Energy Security Act (GOMESA), which expanded revenue sharing among federal, state and local governments.

**Total BOEM Cost:** \$399,997.34

**Period of Performance:** FY 2017–2020

**Conducting Organization(s):** Industrial Economics, Inc.

**Principal Investigator(s):** Jason Price (JPrice@indecon.com)

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### **Description:**

**Background:** BOEM estimates the scales and geographic distributions of economic impacts arising from GOM offshore oil and gas activities for various purposes. For estimating the industry spending impacts of future GOM offshore oil and gas activities, BOEM uses the most recently completed version of MAG-PLAN GOM (Kaplan et al., 2016). MAG-PLAN GOM estimates the costs associated with individual elements of an exploration and development scenario, allocates the costs for each activity to industry sectors, then allocates the sector spending to geographic areas. MAG-PLAN GOM also allows for some basic calculations of government revenue impacts. However, this contract shall improve upon BOEM's methods for calculating fiscal impacts, particularly in light of the implementation of Phase II of GOMESA, which expanded revenue sharing among federal, state and local governments.

BOEM has also developed a methodology for estimating economic impacts in prior years based on the values of sales of oil and gas from federal offshore areas. This methodology divides sales values into government revenues, corporate profits, and industry spending, then estimates the multiplier impacts (and the locations of these impacts). BOEM needs improved consistency between this approach and the approach used to analyze economic impacts in future years.

**Objectives:** This study will develop improved approaches for estimating the fiscal, spending, and profit impacts of GOM offshore oil and gas activities.

**Methods:** This study will build on BOEM's current economic models. In particular, this study will:

- 1) Conduct a literature review of relevant topics.
- 2) Develop a modeling structure that incorporates the changes associated with GOMESA.
- 3) Analyze economic impacts at sub-state levels.
- 4) Develop a software structure that allows BOEM to analyze fiscal, spending, and profit impacts in future years.
- 5) Develop a separate model for analyzing the impacts of specific program actions. This model will allow BOEM to examine the time trends of fiscal, spending, and profit impacts.
- 6) Develop a software framework that will allow BOEM to incorporate estimates for other OCS Regions, such as the Atlantic.

**Current Status:** The literature review is complete. Industrial Economics will soon submit detailed memorandums regarding the proposed methodologies for the cumulative and life-cycle impacts models.

**Final Report Due:** September 2019

**Affiliated WWW Sites:**

**Reference:**

Kaplan MF, Marvakov J, Meade B, Ertis D. 2016. MAG-PLAN GOM 2016: economic impact model for the Gulf of Mexico. New Orleans, LA: US Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region. OCS Study BOEM 2016-072. Website: <http://www.data.boem.gov/PI/PDFImages/ESPIS/5/5569.pdf>.

**Revised Date:** February 16, 2018