

## Environmental Studies Program: Ongoing Study

Title	Socioeconomic Impacts Likely to Result from Initial Oil and Gas Projects in Frontier Areas (NT-20-x13)
Administered by	DES in collaboration with DEA, ECONDD, and regional OE offices
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Conducting Organization(s)	Industrial Economics, Inc.
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PICOC Summary	
<i><u>Problem</u></i>	BOEM has a variety of socioeconomic information but does not have a set of comprehensive narratives describing in a consistent manner the widely varying geographic and temporal distribution of socioeconomic impacts likely to result from oil and gas activities in and near each of the diverse frontier planning areas (those other than the Central and Western GOM and S. California) BOEM is responsible for managing.
<i><u>Intervention</u></i>	The study will describe the area-specific patterns of socioeconomic impacts likely to occur as an initial new representative project in each frontier area progresses through each project development phase from exploration through decommissioning.
<i><u>Comparison</u></i>	The narrative descriptions and select quantitative data will reflect the variation in nature, level, and geographic and temporal distribution of impacts caused by area-to-area differences in geology and technological requirements, the demography of nearby areas, the existing state of industrial development and proximity to infrastructure and support, and other factors.
<i><u>Outcome</u></i>	The study will produce a comprehensive set of narratives with supporting data that describe representative, area-specific projects and the pattern of socioeconomic impacts likely to occur as a result of the baseline characteristics (e.g., resources and operating conditions, along with demography and economic development of nearby communities) of each area. These narratives would support NEPA analyses, program decision documents, and responses to inquiries from stakeholders and public officials.
<i><u>Context</u></i>	OCS oil and gas projects have the same development stages (exploration, development, production, and decommissioning), but their length, the required spending levels, and patterns of resulting socioeconomic impacts could vary considerably in their geographical and temporal distribution, especially with the wide range of circumstances OCS lessees could face in the various frontier areas.

**BOEM Information Need(s):** Of the 26 OCS planning areas, three—the Western and Central Gulf of Mexico (GOM) and Southern California—have a long history of oil and gas development activities. For all three, OCS-related activities were an extension of activities on shore and in state waters—they could rely on extensive networks of supporting infrastructure, local oil and gas companies and suppliers, experienced workers, etc. For these areas, especially the Central and Western GOM, additional projects reinforce the status quo and are unlikely to produce noticeable new socioeconomic impacts, they alone certainly would not change existing patterns of socioeconomic impacts. In contrast, for the other 23 “frontier” planning areas, any new projects would be the initial projects in the area and would result in new (and often noticeable) socioeconomic impacts. (The Beaufort Sea production from a project in state waters; the activities related to the small, isolated portion of the deep-water Eastern GOM available for leasing; and history of exploratory drilling in other areas are substantively unimportant in this regard and are ignored here for simplicity.) To varying degrees, even a single project could have noticeable impacts on some nearby communities. And, for most of the frontier areas, the geographical and temporal distributions of associated activities and resulting impacts would differ considerably from those seen in and near the three mature areas and certainly would vary across the OCS. A few of the frontier areas share some characteristics of the mature areas when oil and gas projects there first moved beyond state waters. Some have no oil and gas activities nearby but are near major, industrialized population centers and extensive infrastructure such as transportation centers (including ports) and networks. Others are far from any major population centers and infrastructure. The resource potential and feasible patterns of resource development also vary considerably.

BOEM has a considerable base of socioeconomic information on coastal communities but would benefit from a single set of consistently developed descriptions of the potential socioeconomic impacts from a representative initial project in each frontier planning area (or group of planning areas with similar impact patterns), effectively illustrating distinctions and identifying different geographical and temporal distributions of impacts that result from the huge differences in circumstances that exist for these planning areas. Such an approach would improve the quality and consistency of the bureau’s socioeconomic analyses at all levels, reduce the amount of staff time spent on these analyses, improve socioeconomic analysis in analytical documents, make it easier for decision-makers and readers to determine major takeaways, and enhance BOEM’s ability to respond to public inquiries in a variety of circumstances.

Narratives describing oil and gas development patterns and potential socioeconomic impacts can be incorporated into programmatic and lease-sale NEPA assessments and the Section 18 Equitable Sharing analysis in the National OCS Program decision documents to enhance the reader’s understanding of a representative project lifecycle and likely associated impacts. These narratives and supporting data would complement and tier off of previous BOEM studies and information produced from the Environmental Studies Program.

**Background:** Assessment of potential socioeconomic effects is an important part of the information BOEM must provide to support decisions at the programmatic, sale, and lease-plan approval stages. Those potential effects also are very important to residents of affected communities and the officials who represent them. An improved understanding of the ranges in spatial (local, regional, national) and temporal distributions of socioeconomic impacts associated with new oil and gas projects would be useful as BOEM aims to better discern impact variations among planning areas. For example, while additional new projects in the Gulf of Mexico tend to sustain (rather than change) employment levels and related socioeconomic conditions for communities along and near the Gulf Coast, the effects of new development in some frontier areas on nearby communities could vary considerably, and many might

experience both a lower percentage of the benefits of employment and significant changes in land use due to construction or expansion of infrastructure. Consistent narrative descriptions across planning areas on these types of socioeconomic dynamics will complement BOEM's existing suite of information and better enable document authors to write more succinctly and highlight important considerations.

**Objectives:** For each frontier planning area (or group of areas with similar characteristics), obtain a consistent, well-supported, comprehensive narrative description of:

- The characteristics of the offshore area and relevant onshore areas that tend to cause the magnitude or the spatial and/or temporal distributions of the impacts to vary from area to area.
- The primary and support activities likely to occur as a generic project suited for the relevant conditions passes through each phase of OCS development.
- The general nature and magnitude of the effects of these activities, including employment, labor income, and other socioeconomic and fiscal impacts.
- The extent to which activities and impacts could be expected to occur locally or elsewhere, and the extent to which this geographic distribution is likely to change over time and why (e.g., long-term production or action on additional leases justifies relocation of certain kinds of support facilities and/or creates opportunities for certain kinds of support services).

**Methods:** This study will have two phases: Phase 1 will provide high-level narratives describing the distinct pattern of socioeconomic impacts likely to emerge in each frontier planning area if oil and gas development occurs; Phase 2 will supplement the initial narratives for the Alaska planning areas with more in-depth analysis and (broad-range) estimates of likely employment and similar measures.

In Phase 1, working with BOEM's Resource Evaluation offices, the contractor will provide a high-level description of the likely nature, magnitude, and geographic and temporal distribution of socioeconomic impacts likely to result from the development stages of an initial project in each of the 23 frontier planning areas (excluding only the Central and Western GOM and Southern California). Where appropriate, a single descriptive narrative may apply to multiple planning areas with similar patterns of impacts. Each narrative will briefly describe the relevant activities associated with a representative oil and gas project suitable for the area as the project progresses through its different stages (exploration, development, production, and decommissioning). For each stage of the project, the narrative will include information such as the extent to which the affected community is likely to experience impacts from different kinds of activities (e.g., construction, logistical support, labor housing and support, provision of goods and services) and how long the impacts are likely to be felt. At a minimum, the effective definition of "communities" would be no less specific than one or more "local" boroughs/counties, the rest of the adjacent state, and the rest of the U.S., with more specificity where appropriate.

The contractor will identify any location-specific differences in a representative project that could be expected to appreciably affect likely socioeconomic impacts and factors that could significantly alter the nature and spatial and temporal distribution of impacts from primary and supporting activities across planning areas. For example, the geographic distribution of impacts is likely to be affected by the presence or absence of nearby industrial centers and may change over the course of the project for many areas. Depending in part on the location of a frontier area, as the initial project goes into the production phase, support facilities may be constructed or expanded nearby, local businesses may supply more of the goods and services that had previously been purchased from vendors in established areas, and some workers may relocate closer to their workplaces. In addition, some areas may have

resources that require—or could support—multiple projects. The activities associated with additional projects could cause greater changes in geographical distribution of impacts to occur over time. In Phase 1, the narratives will provide high-level descriptions of any such changes likely to occur over the stages of development.

By themselves, Phase 1 deliverables would be useful for Section 18 analyses, the draft Programmatic EIS, and EIS's for Alaska sales proposed for the near future (e.g., Cook Inlet under the current Program and an early Beaufort Sea sale in the Proposed Program).

In Phase 2 of the study, for the Alaska planning areas, the contractor will expand the narratives with more detailed information about the nature of the impacts in each location and will supplement them with estimates of suitable quantitative *ranges* of likely employment, income, revenues, and—possibly—other factors to help identify the *magnitude* of impacts on affected communities. The ranges will be wide/robust enough to capture the inherent uncertainties and foreseeable differences in technology and other factors. These enhancements will include estimated ranges of the likely proportion of employment and other such factors communities would experience, as well as descriptions of the nature of the jobs and/or revenues.

An optional task would apply the Phase 2 enhancements to as many as three additional narratives for frontier planning/program areas in one or more of the other OCS regions.

**Specific Research Question(s):**

1. What are the important differences among frontier planning areas in the nature, the level, and the temporal and geographic distribution of logistical and other support?
2. What are the types of socioeconomic impacts associated with each activity during each project stage? What are the factors that could alter the nature and spatial and temporal distributions of these stage-specific impacts?
3. What is the relative magnitude of the socioeconomic impacts over time (e.g., ranges of employment/income and local/state revenues), and how is that likely to be felt in which communities (e.g., local counties/boroughs, adjacent states)?

**Current Status:** The project team has completed and finalized the development of representative projects for each of the planning areas included in the study. BOEM is currently in the process of reviewing the draft deliverable memo for the Atlantic planning areas describing the enduring socioeconomic characteristics of the onshore areas associated with the North Atlantic, Mid-Atlantic, and South Atlantic.

**Publications Completed:** None

**Affiliated WWW Sites:** None