

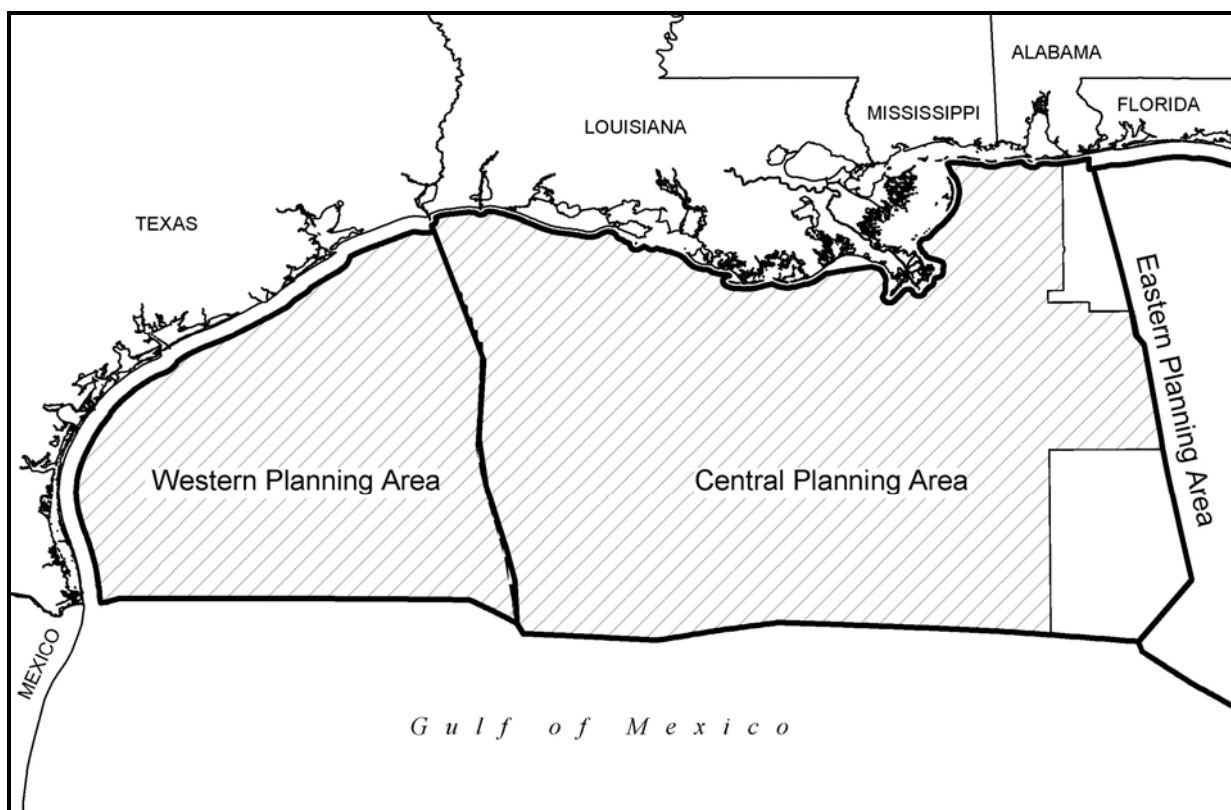
# Gulf of Mexico OCS Oil and Gas Lease Sales: 2007-2012

Western Planning Area Sales 204, 207, 210, 215, and 218

Central Planning Area Sales 205, 206, 208, 213, 216, and 222

## Final Environmental Impact Statement

### Volume II: Figures and Tables



# **Gulf of Mexico OCS Oil and Gas Lease Sales: 2007-2012**

**Western Planning Area Sales 204, 207, 210, 215, and 218  
Central Planning Area Sales 205, 206, 208, 213, 216, and 222**

## **Final Environmental Impact Statement**

### **Volume II: Figures and Tables**

Author

Minerals Management Service  
Gulf of Mexico OCS Region

Published by

**U.S. Department of the Interior  
Minerals Management Service  
Gulf of Mexico OCS Region**

**New Orleans  
April 2007**

## TABLE OF CONTENTS

	Page
LIST OF FIGURES .....	v
LIST OF TABLES .....	ix
FIGURES .....	3
TABLES .....	67
REFERENCES .....	163

## LIST OF FIGURES

	Page
<b>Chapter 1</b>	
Figure 1-1. Gulf of Mexico Outer Continental Shelf Planning Areas, Proposed Lease Sale Areas, and Locations of Major Cities.....	3
Figure 1-2. Air Quality Jurisdiction.....	4
<b>Chapter 2</b>	
Figure 2-1. Location of Proposed Stipulations and Deferrals.....	5
Figure 2-2. Military Warning Areas in the Gulf of Mexico. ....	6
<b>Chapter 3</b>	
Figure 3-1. Status of Ozone Attainment in the Coastal Counties and Parishes of the Central and Western Gulf of Mexico. ....	7
Figure 3-2. Coastal and Marine Waters of the Gulf of Mexico with Selected Rivers and Water Depths. ....	8
Figure 3-3. Frequency of Hypoxia in the Gulf of Mexico.....	9
Figure 3-4. Perspective View of the Central Sector of the Mississippi-Alabama Continental Shelf Showing the General Distribution of Different Types of Topographic Features in the Depth Range of 60-120 m. (Light shading indicates the area surveyed for topographic features.).....	10
Figure 3-5. Location of Topographic Features in the Gulf of Mexico. ....	11
Figure 3-6. Vertically-exaggerated, Multibeam Bathymetric Images of the East (top) and West (bottom) Flower Garden Banks Illustrating the Topographic Formation of Each Reef System (C&C Technologies Inc., 1996). ....	12
Figure 3-7. Vertically-exaggerated, Multibeam Bathymetric Topographic Image of Stetson Bank Showing the Vertical Orientation of this Midshelf Topographic Formation (Gardner, 2000). ....	13
Figure 3-8. Sonnier Bank and Protective Zones in the Proposed Topographic Features Stipulation. ....	14
Figure 3-9. Location of Known Chemosynthetic Communities in the Gulf of Mexico. ....	15
Figure 3-10. Marine Protected Areas in the Gulf of Mexico. ....	16
Figure 3-11. Areas Closed to Longline Fishing in the Gulf of Mexico. ....	17
Figure 3-12. Economic Impact Areas in the Gulf of Mexico. ....	18
Figure 3-13. Onshore Infrastructure Located in Texas. ....	19
Figure 3-14. Onshore Infrastructure Located in Louisiana and Mississippi.....	20
Figure 3-15. Onshore Infrastructure Located in Alabama and Florida.....	21
Figure 3-16. Economic Land Use Patterns. ....	22
Figure 3-17. Major Ports and Domestic Waterways in the Gulf of Mexico.....	23
Figure 3-18. Counties and Parishes Designated for FEMA Assistance Following Hurricanes Katrina and Rita. ....	24
Figure 3-19. Types of Deepwater Production Structures.....	25
Figure 3-20. OCS-Related Service Bases in the Gulf of Mexico. ....	26
Figure 3-21. Percentage of Minority Population by County in Texas.....	27
Figure 3-22. Percentage of Minority Population by Parish in Louisiana and by County in Mississippi. ....	28

Figure 3-23.	Percentage of Minority Population by County in Alabama and Florida.....	29
Figure 3-24.	Percentage of Poverty by County in Texas.....	30
Figure 3-25.	Percentage of Poverty by Parish in Louisiana and by County in Mississippi.....	31
Figure 3-26.	Percentage of Poverty by County in Alabama and Florida.....	32

## Chapter 4

Figure 4-1.	Offshore Subareas in the Gulf of Mexico.....	33
Figure 4-2.	Generic Well Schematic.....	34
Figure 4-3.	USEPA Regions 4 and 6 Jurisdictional Boundaries.....	35
Figure 4-4.	Produced Water Extracted in the Gulf of Mexico in 2005.....	36
Figure 4-5.	Location of Sand Bank/Shoal Study Areas.....	37
Figure 4-6.	Location of Ship Shoal.....	38
Figure 4-7.	Location of Identified Sand Resource Sites Offshore Alabama.....	39
Figure 4-8.	Probability of a Particular Number of Offshore Spills $\geq 1,000$ bbl Occurring as a Result of OCS Program Operations Gulfwide during the Years 2007-2046.....	40
Figure 4-9.	Probability of a Particular Number of Offshore Spills $\geq 1,000$ bbl Occurring as a Result of OCS Program Operations in the Western Planning Area during the Years 2007-2046.....	41
Figure 4-10.	Probability of a Particular Number of Offshore Spills $\geq 1,000$ bbl Occurring as a Result of OCS Program Operations in the Central Planning Area during the Years 2007-2046.....	42
Figure 4-11.	Probability (percent chance) of a Particular Number of Offshore Spills $\geq 1,000$ bbl Occurring as a Result of Either Facility or Pipeline Operations Related to a WPA Proposed Action.....	43
Figure 4-12.	Probability (percent chance) of a Particular Number of Offshore Spills $\geq 1,000$ bbl Occurring as a Result of Either Facility or Pipeline Operations Related to a CPA Proposed Action.....	43
Figure 4-13.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days the Shoreline (counties and parishes) as a Result of a Proposed Action in the Western Planning Area (only counties and parishes with greater than a 0.5% risk of contact within 10 days are shown).....	44
Figure 4-14.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days the Shoreline (counties and parishes) as a Result of a Proposed Action in the Central Planning Area (only counties and parishes with greater than a 0.5% risk of contact within 10 days are shown).....	44
Figure 4-15.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days State Offshore Waters or Recreational Beaches as a Result of a WPA or CPA Proposed Action.....	45
Figure 4-16.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days the Surface Waters Overlying and Surrounding Offshore Environmental Features or Boundary Targets as a Result of a WPA or CPA Proposed Action.....	46
Figure 4-17.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Marine Mammal Habitats as a Result of a WPA or CPA Proposed Action.....	47
Figure 4-18.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Manatee Habitats as a Result of a WPA or CPA Proposed Action.....	48
Figure 4-19.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Known Locations of Gulf Sturgeon as a Result of a WPA or CPA Proposed Action.....	48
Figure 4-20.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Sea Turtle Habitats as a Result of a WPA or CPA Proposed Action.....	49

Figure 4-21.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Endangered Beach Mice Habitats as a Result of a WPA or CPA Proposed Action. ....	50
Figure 4-22.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Piping Plover Habitat as a Result of a WPA or CPA Proposed Action. ....	51
Figure 4-23.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Whooping Crane Habitat as a Result of a WPA or CPA Proposed Action. ....	51
Figure 4-24.	Probabilities of Oil Spills ( $> 1,000$ bbl) Occurring and Contacting within 10 Days Brown Pelican Habitat as a Result of a WPA or CPA Proposed Action. ....	51
Figure 4-25.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Bald Eagle Habitat as a Result of a WPA or CPA Proposed Action. ....	52
Figure 4-26.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Raptor Bird Habitats as a Result of a WPA or CPA Proposed Action. ....	52
Figure 4-27.	Probabilities of Oil Spills ( $> 1,000$ bbl) Occurring and Contacting within 10 Days Gull, Terns and Charadriid Allies Habitats as a Result of a WPA or CPA Proposed Action. ....	52
Figure 4-28.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Charadriid Shoreline Bird Habitats as a Result of a WPA or CPA Proposed Action. ....	53
Figure 4-29.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Diving Bird Habitats as a Result of a WPA or CPA Proposed Action. ....	53
Figure 4-30.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Wading Bird Habitats as a Result of a WPA or CPA Proposed Action. ....	54
Figure 4-31.	Probabilities of Oil Spills ( $\geq 1,000$ bbl) Occurring and Contacting within 10 Days Waterfowl Habitats as a Result of a WPA or CPA Proposed Action. ....	54
Figure 4-32.	Comparison of Spill Frequency and Spill Volume for Past OCS Spills by Size Category (1971-1999 MMS OCS spill database (Anderson and LaBelle, 2000). ....	55
Figure 4-33.	Major Oil Pipeline Landfall Areas Developed for OSRA. ....	56

## Chapter 5

Figure 5-1.	Areas Defined by the Gulf of Mexico Energy Security Act of 2006. ....	57
-------------	---	----

## Appendix A

Figure A-1.	Geologic Provinces of the Gulf of the Mexico. ....	58
Figure A-2.	Spatial Frequency (%) of the Water Mass Associated with the Loop Current in the Eastern Gulf of Mexico Based on Data for the Period 1976-2003. ....	59
Figure A-3.	Temperature vs. Salinity, Temperature vs. Depth, and Salinity vs. Depth Based on All Data Collected during Hidalgo Cruise 62-H3, February to March 1962. ....	60
Figure A-4.	Location of Artificial Reef Planning Areas in the Gulf of Mexico. ....	61
Figure A-5.	OCS Platform Distribution across the Gulf of Mexico. ....	62
Figure A-6.	Locations of Rigs-to-Reefs in the Gulf of Mexico. ....	63

## LIST OF TABLES

	Page
<b>Chapter 1</b>	
Table 1-1 Proposed WPA and CPA Gulf of Mexico OCS Lease Sales for 2007-2012 .....	67
<b>Chapter 3</b>	
Table 3-1 National Ambient Air Quality Standards (NAAQS).....	68
Table 3-2 Selected Mean Tides Around the Western and Central Gulf of Mexico.....	68
Table 3-3 Biotic Zones of Topographic Features with Bank Crest and Seafloor Depth in Meters .....	69
Table 3-4 Estimated Abundance of Cetaceans in the Northern Gulf of Mexico Oceanic Waters.....	70
Table 3-5 Sea Turtle Taxa of the Northern Gulf of Mexico .....	71
Table 3-6 Common Diving Birds in the Northern Gulf of Mexico .....	71
Table 3-7 Common Marsh or Wading Birds in the Northern Gulf of Mexico .....	72
Table 3-8 Common Waterfowl in the Northern Gulf of Mexico.....	73
Table 3-9 Species Listed in the Gulf of Mexico Fishery Management Plans .....	74
Table 3-10 Gulf of Mexico Essential Fish Habitat Assessment (species under Gulf of Mexico Fishery Management Plans).....	75
Table 3-11 Gulf of Mexico Essential Fish Habitat Assessment (highly migratory species managed by NOAA Fisheries Service).....	76
Table 3-12 Top Species Commonly Caught by Recreational Fishers in the Marine Recreational Fisheries Statistics Gulf Coast States (2005) .....	77
Table 3-13 Recreational Fishing Participation in the Marine Recreational Fisheries Statistics Gulf Coast States (2005) .....	77
Table 3-14 Mode of Fishing in the Marine Recreational Fisheries Statistics Gulf Coast States (not including Texas) (2005) .....	78
Table 3-15 Employment in Tourism-Related Industries by Labor Market Area in 2004 .....	79
Table 3-16 Employment in Tourism-Related Industries by Economic Impact Area in 2004 .....	80
Table 3-17 Classification of the Gulf Economic Impact Areas.....	81
Table 3-18 Demographic and Employment Baseline Projections for Economic Impact Area TX-1 .....	82
Table 3-19 Demographic and Employment Baseline Projections for Economic Impact Area TX-2.....	83
Table 3-20 Demographic and Employment Baseline Projections for Economic Impact Area TX-3.....	84
Table 3-21 Demographic and Employment Baseline Projections for Economic Impact Area LA-1 .....	85
Table 3-22 Demographic and Employment Baseline Projections for Economic Impact Area LA-2.....	86
Table 3-23 Demographic and Employment Baseline Projections for Economic Impact Area LA-3.....	87
Table 3-24 Demographic and Employment Baseline Projections for Economic Impact Area LA-4.....	88
Table 3-25 Demographic and Employment Baseline Projections for Economic Impact Area MS-1 .....	89
Table 3-26 Demographic and Employment Baseline Projections for Economic Impact Area AL-1 .....	90
Table 3-27 Demographic and Employment Baseline Projections for Economic Impact Area FL-1 .....	91
Table 3-28 Demographic and Employment Baseline Projections for Economic Impact Area FL-2 .....	92
Table 3-29 Demographic and Employment Baseline Projections for Economic Impact Area FL-3 .....	93
Table 3-30 Demographic and Employment Baseline Projections for Economic Impact Area FL-4 .....	94
Table 3-31 OCS-Related Service Bases .....	95
Table 3-32 2001 Hunting and Wildlife Watching in Gulf States by U.S. Residents.....	96
Table 3-33 Number of Shipwrecks by Planning Area and Lease Area .....	97
Table 3-34 Population and Employment Projections for Counties/Parishes Most Negatively Impacted by Hurricanes Katrina and Rita .....	98

Table 3-35	Baseline Population Projections (in thousands) by Economic Impact Area .....	99
Table 3-36	Waterway Depth, Traffic, and Number of Trips (2004) .....	100
Table 3-37	Offshore Supply Vessel Specifications .....	101
Table 3-38	Existing Coastal Infrastructure Related to OCS Activities in the Gulf of Mexico.....	101
Table 3-39	Summary of Federal Rules Governing OCS Discharges and Injection .....	102
Table 3-40	Gulf of Mexico Region Counties with Concentrated Levels of Oil- and Gas-Related Infrastructure .....	103
Table 3-41	Baseline Employment Projections (in thousands) by Economic Impact Area.....	104

## Chapter 4

Table 4-1	Projected Oil and Gas Production in the Gulf of Mexico OCS.....	105
Table 4-2	Offshore Scenario Information Related to the Proposed Action in the Western Planning Area.....	106
Table 4-3	Offshore Scenario Information Related to the Proposed Action in the Central Planning Area .....	107
Table 4-4	Offshore Scenario Information Related to OCS Program Activities in the Gulf of Mexico for the Years 2007-2046 .....	108
Table 4-5	Offshore Scenario Information Related to OCS Program Activities in the Western Planning Area for the Years 2007-2046.....	109
Table 4-6	Offshore Scenario Information Related to OCS Program Activities in the Central Planning Area for the Years 2007-2046.....	110
Table 4-7	Annual Volume of Produced Water Discharged by Depth (MMbbl) .....	111
Table 4-8	Average Annual Emission Rates from OCS Infrastructures in the Gulf of Mexico .....	111
Table 4-9	Projected New Coastal Infrastructure Related to OCS Activities in the Gulf of Mexico from the Years 2007-2046.....	112
Table 4-10	LNG Proposed or Licensed Projects (Deepwater Ports) in the Gulf of Mexico .....	112
Table 4-11	Average Annual Inputs (1990-1999) of Petroleum Hydrocarbons to Coastal Waters of the Gulf of Mexico .....	113
Table 4-12	Average Annual Inputs (1990-1999) of Petroleum Hydrocarbons to Offshore Waters of the Gulf of Mexico.....	114
Table 4-13	Annual Oil-Spill Occurrence within Coastal and Offshore Waters of the Gulf of Mexico (Gulfwide Estimates) .....	115
Table 4-14	OCS and Non-OCS Program Spill Rates .....	116
Table 4-15	Probability of One or More Offshore Spill Events (percent chance) and the Mean Number of Spills Estimated for Two Size Groups ( $\geq 1,000$ bbl and $\geq 10,000$ bbl) that Could Occur as a Result of an Accident Associated with Either Facility, Pipeline, or Tanker OCS Program Operations .....	117
Table 4-16	OCS Offshore Oil Spills (1985-1999).....	118
Table 4-17	Projected Average Annual OCS Emissions Related to the Proposed Action in the WPA by Source (tons per year) .....	118
Table 4-18	Class I OCD Modeling Results for a Proposed Action in the Western Planning Area and the Corresponding Maximum Allowable Increases .....	119
Table 4-19	Class II OCD Modeling Results for a Proposed Action in the Western Planning Area and the Corresponding Maximum Allowable Increases .....	119
Table 4-20	Population Projections for a Proposed WPA Lease Sale by Economic Impact Area Over 40 Years .....	120
Table 4-21	Population Projected from a Proposed CPA Lease Sale as a Percent of Total Population by Economic Impact Area .....	121



Table 4-22	Low-Case Employment (Direct, Indirect, and Induced) Projections for a Proposed WPA Sale by Economic Impact Area Over 40 Years.....	122
Table 4-23	High-Case Employment (Direct, Indirect, and Induced) Projections for a Proposed WPA Sale by Economic Impact Area Over 40 Years.....	123
Table 4-24	Employment Projected from a Proposed WPA Lease Sale as a Percent of Total Employment by Economic Impact Area .....	124
Table 4-25	Projected Average Annual OCS Emissions Related to the Proposed Action in the CPA by Source (tons per year) .....	125
Table 4-26	Class I OCD Modeling Results for a Proposed Action in the Central Planning Area and the Corresponding Maximum Allowable Increases .....	126
Table 4-27	Class II OCD Modeling Results for a Proposed Action in the Central Planning Area and the Corresponding Maximum Allowable Increases .....	126
Table 4-28	Population Projections for a Proposed CPA Lease Sale by Economic Impact Area Over 40 Years .....	127
Table 4-29	Population Projected from a Proposed CPA Lease Sale as a Percent of Total Population by Economic Impact Area .....	128
Table 4-30a	Low-Case Employment (Direct, Indirect, and Induced) Projections for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 1-20).....	129
Table 4-30b	Low-Case Employment (Direct, Indirect, and Induced) Projections for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 21-40).....	130
Table 4-31a	High-Case Employment (Direct, Indirect, and Induced) Projections for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 1-20).....	131
Table 4-31b	High-Case Employment (Direct, Indirect, and Induced) Projections for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 21-40).....	132
Table 4-32	Employment Projected from a Proposed CPA Lease Sale as a Percent of Total Employment by Economic Impact Area .....	133
Table 4-33	Offshore Spills $\geq 1,000$ Barrels from Accidents Associated with OCS Facility Operations (1964-2005) .....	134
Table 4-34	Offshore Spills $\geq 1,000$ bbl from Accidents Associated with OCS Pipeline Oil Transport (1964-2005) .....	135
Table 4-35	Mean Number and Sizes of Spills Estimated to Occur in OCS Offshore Waters from an Accident Related to Activities Supporting a Proposed Action Over a 40-Year Time Period .....	136
Table 4-36	Mass Balance of a Hypothetical Spill of 4,600 bbl Spilled over a 12-Hour Period from a Pipeline Break during the Summer, 50 Miles Off Louisiana (oil characteristics: API 30° and stable emulsion formation) .....	137
Table 4-37	Mass Balance of a Hypothetical Spill of 4,600 bbl Spilled over 12-Hour Period from an OCS Pipeline Break during the Winter, 65 Miles off Texas (oil characteristics: API 35°, no emulsion formation) .....	138
Table 4-38	Estimated Number of Spills that Could Happen in Gulf Coastal Waters from an Accident Related to Activities Supporting a Proposed Action .....	139
Table 4-39	Number and Volume of Chemical and Synthetic-Based Fluid Spills in the Gulf of Mexico during the Years 2001-2004.....	140
Table 4-40	Record of Past Spills Where $>1,000$ bbl of Synthetic-Based Fluid (SBF) was Released ...	140
Table 4-41	Estimated Air Emissions for OCS and Non-OCS Activities in the Western and Central Gulf of Mexico Planning Areas .....	141
Table 4-42	Recommended Mitigation Techniques Used to Avoid or Reduce Adverse Impact to Wetlands by Pipelines, Canals, Dredging, and Dredged Material Placement.....	142
Table 4-43	Population Projected for the OCS Program by Economic Impact Area .....	144

Table 4-44	Population Projected for the OCS Program as a Percent of Total Population by Economic Impact Area.....	145
Table 4-45a	Low-Case Employment Projected for the OCS Program by Economic Impact Area (Years 1-20).....	146
Table 4-45b	Low-Case Employment Projected for the OCS Program by Economic Impact Area (Years 21-40).....	147
Table 4-46a	High-Case Employment Projected for the OCS Program by Economic Impact Area (Years 1-20).....	148
Table 4-46b	High-Case Employment Projected for the OCS Program by Economic Impact Area (Years 21-40).....	149
Table 4-47	Employment Projected for the OCS Program as a Percent of Total Employment by Economic Impact Area.....	150

## **Appendix A**

Table A-1	Watermasses in the Gulf of Mexico.....	151
Table A-2	Climatological Data for Selected Gulf Coast Locations.....	152
Table A-3	Summary of the Most Damaging Hurricanes in the Gulf of Mexico (1900-2005).....	153
Table A-4	Rigs-to-Reefs Donations and Methods of Removal and Reefing by State as of May 2006.....	154
Table A-5	MMS-Funded Hurricane Research and Studies.....	155

# FIGURES

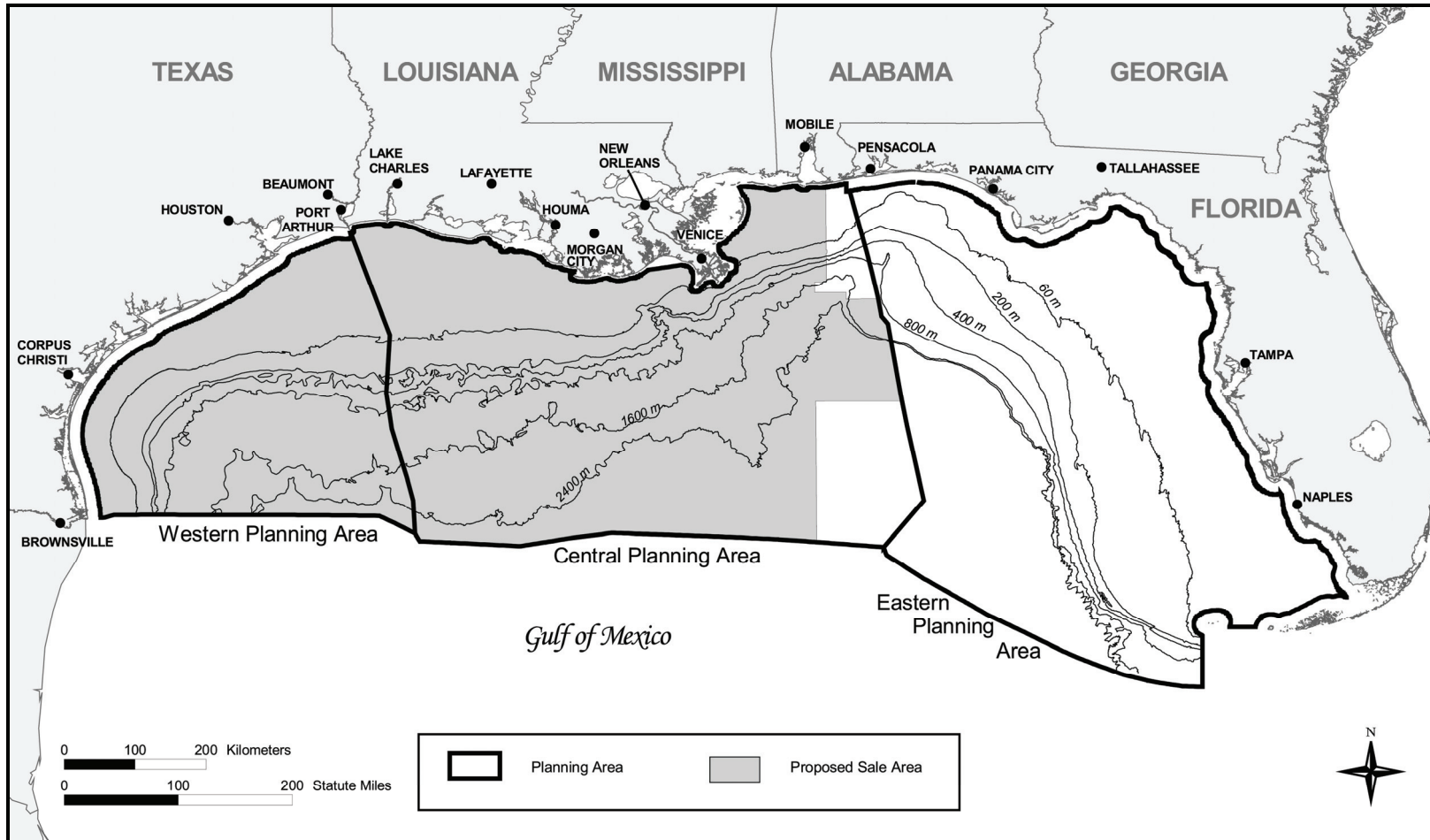


Figure 1-1. Gulf of Mexico Outer Continental Shelf Planning Areas, Proposed Lease Sale Areas, and Locations of Major Cities.

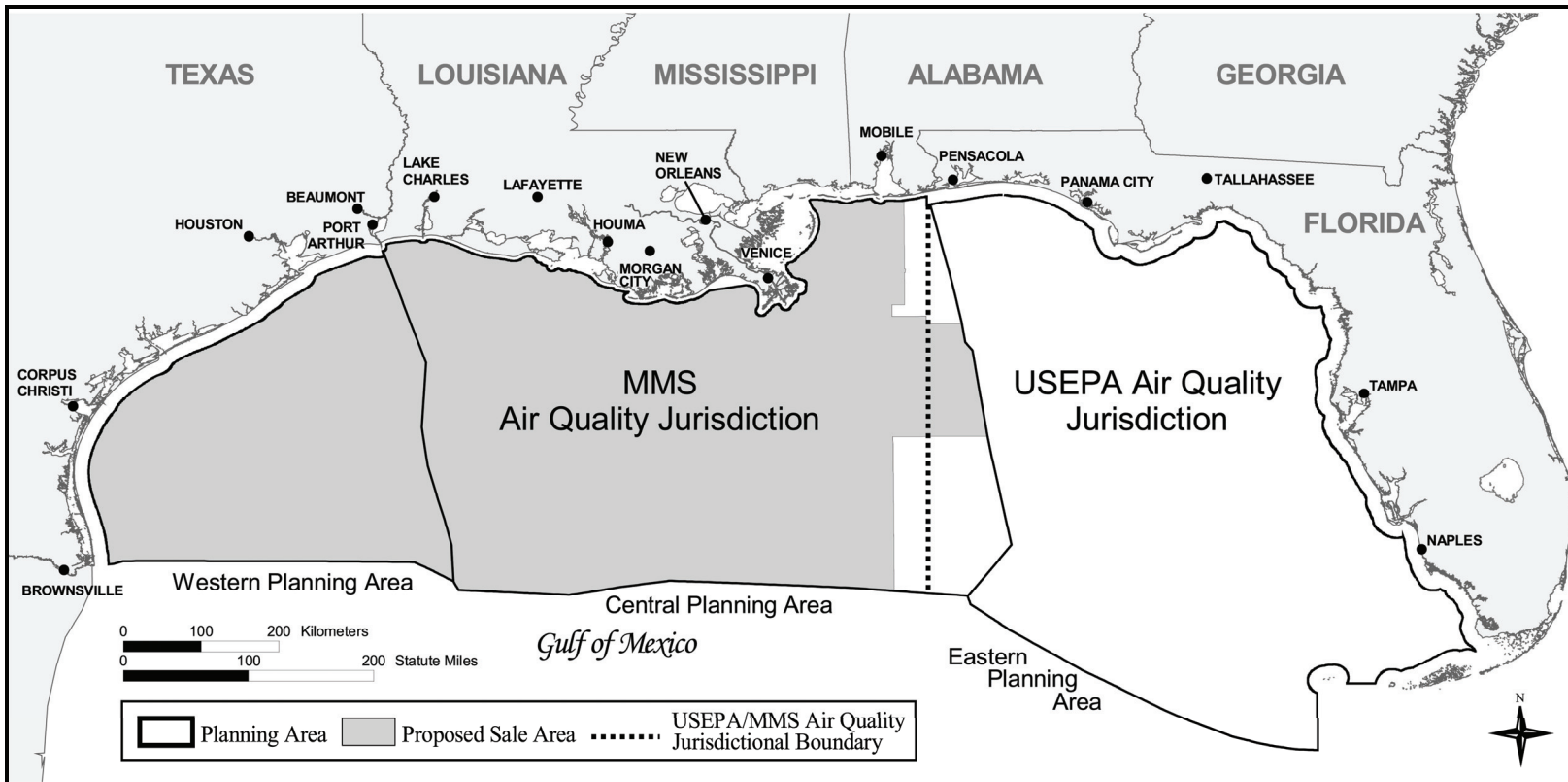


Figure 1-2. Air Quality Jurisdiction.

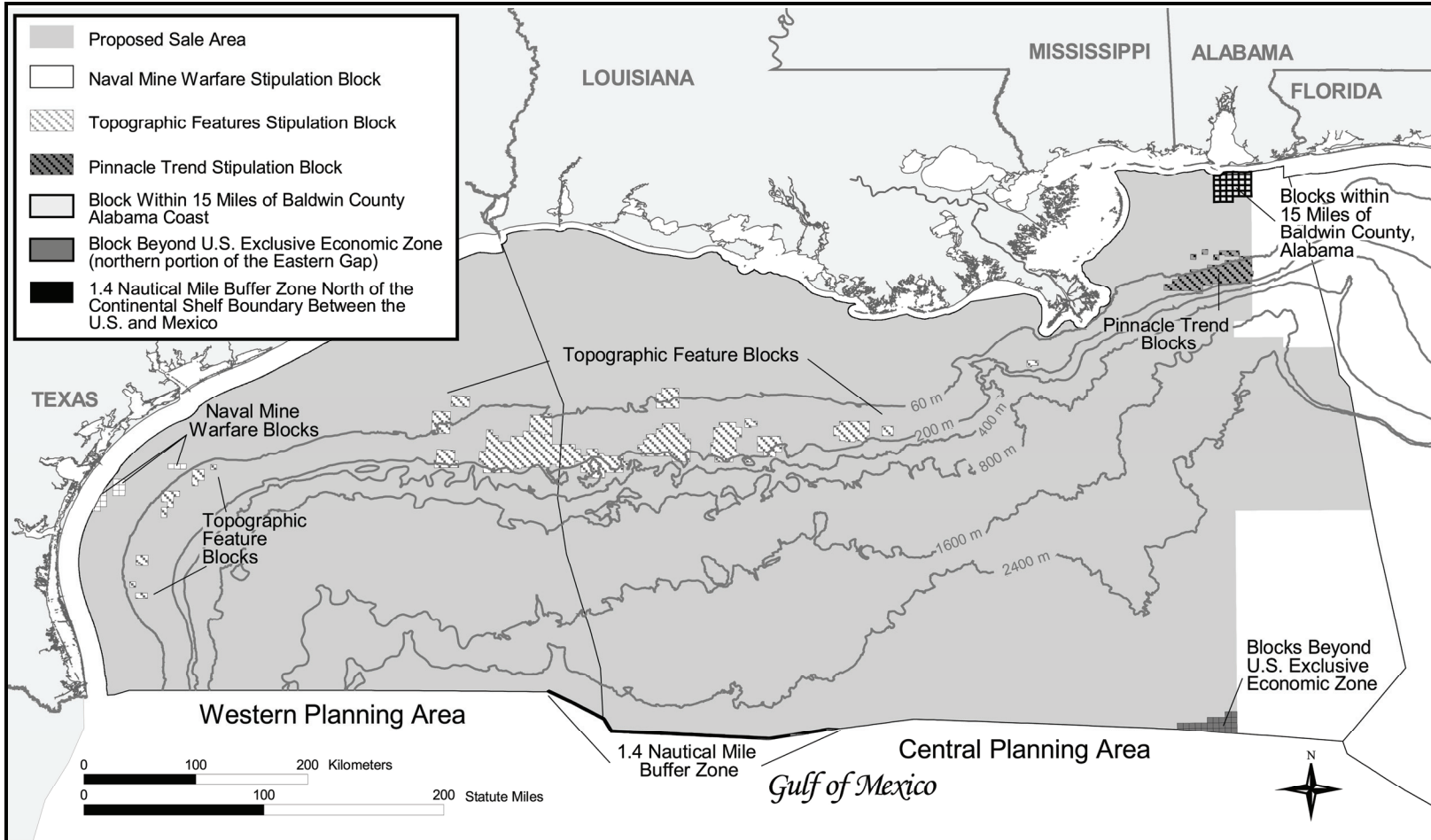


Figure 2-1. Location of Proposed Stipulations and Deferrals.

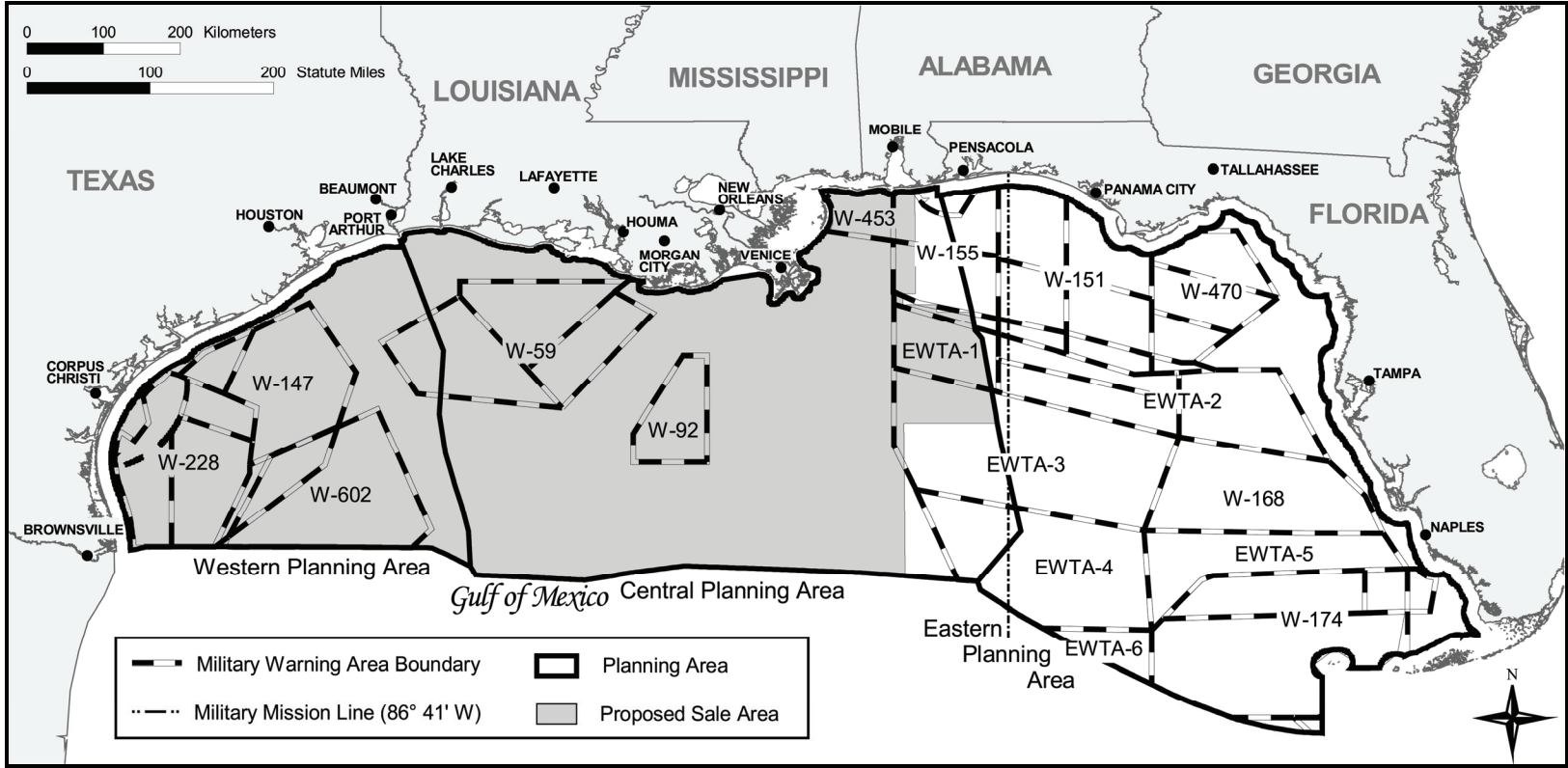


Figure 2-2. Military Warning Areas in the Gulf of Mexico.

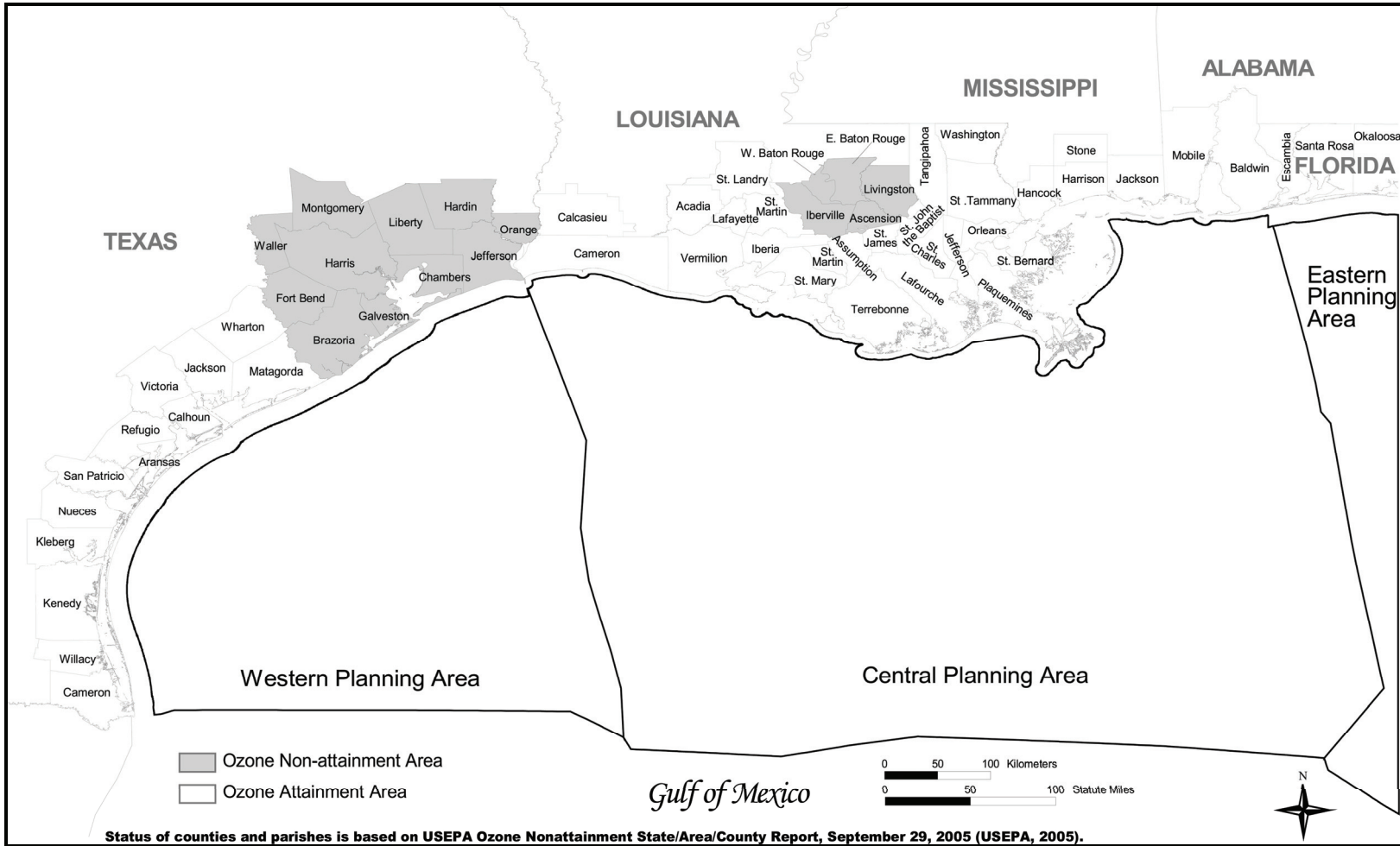


Figure 3-1. Status of Ozone Attainment in the Coastal Counties and Parishes of the Central and Western Gulf of Mexico.



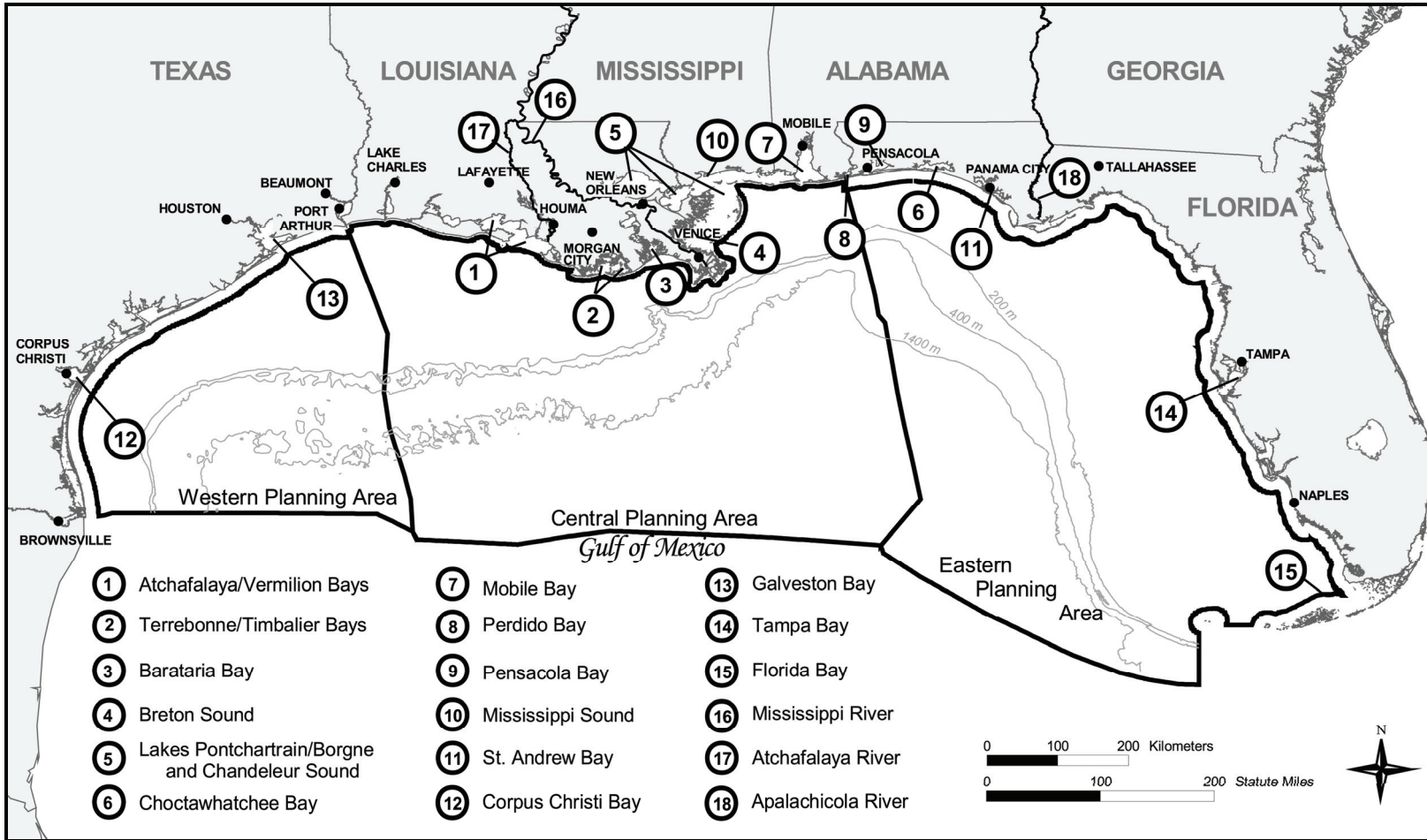


Figure 3-2. Coastal and Marine Waters of the Gulf of Mexico with Selected Rivers and Water Depths.

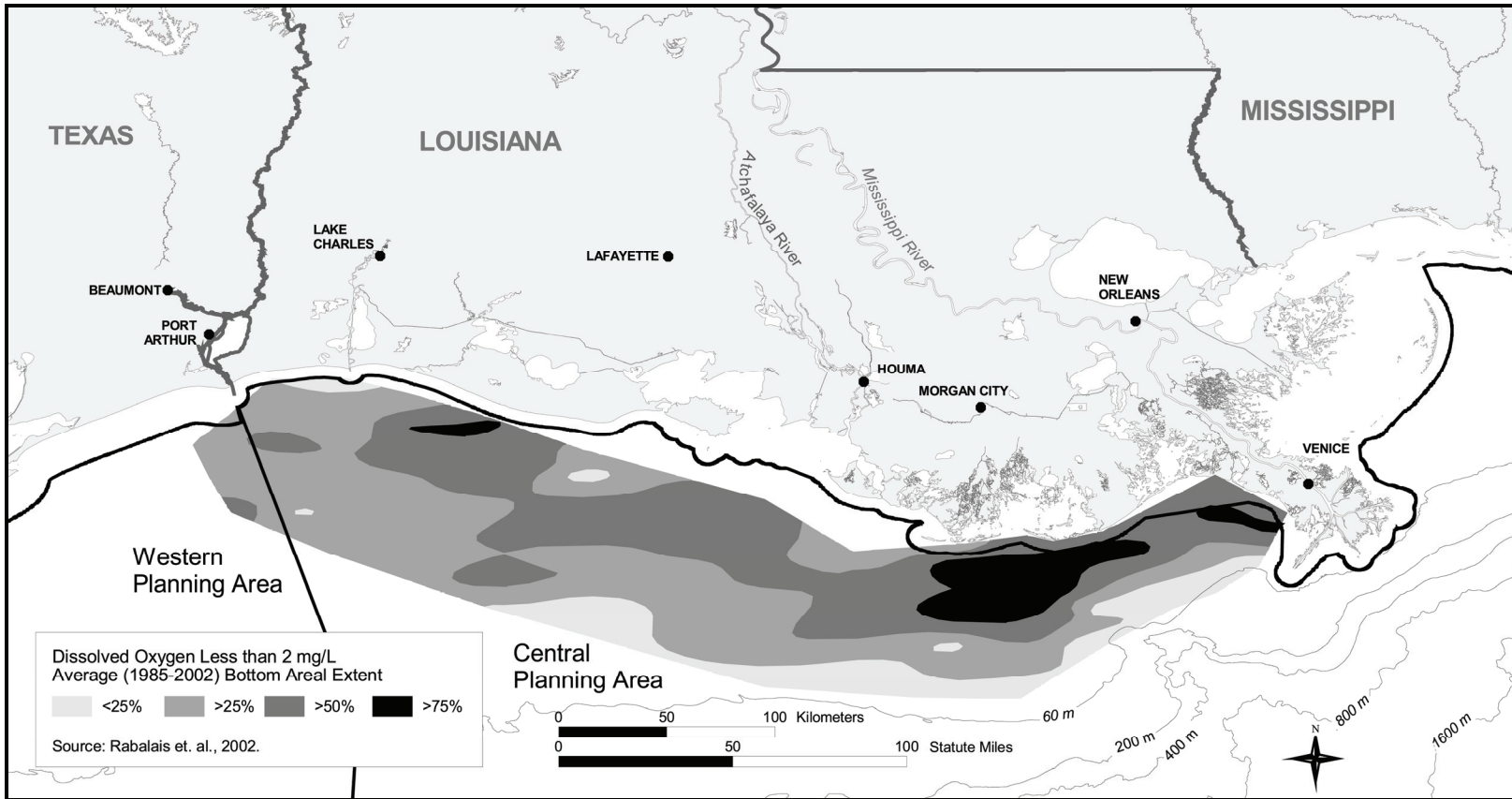
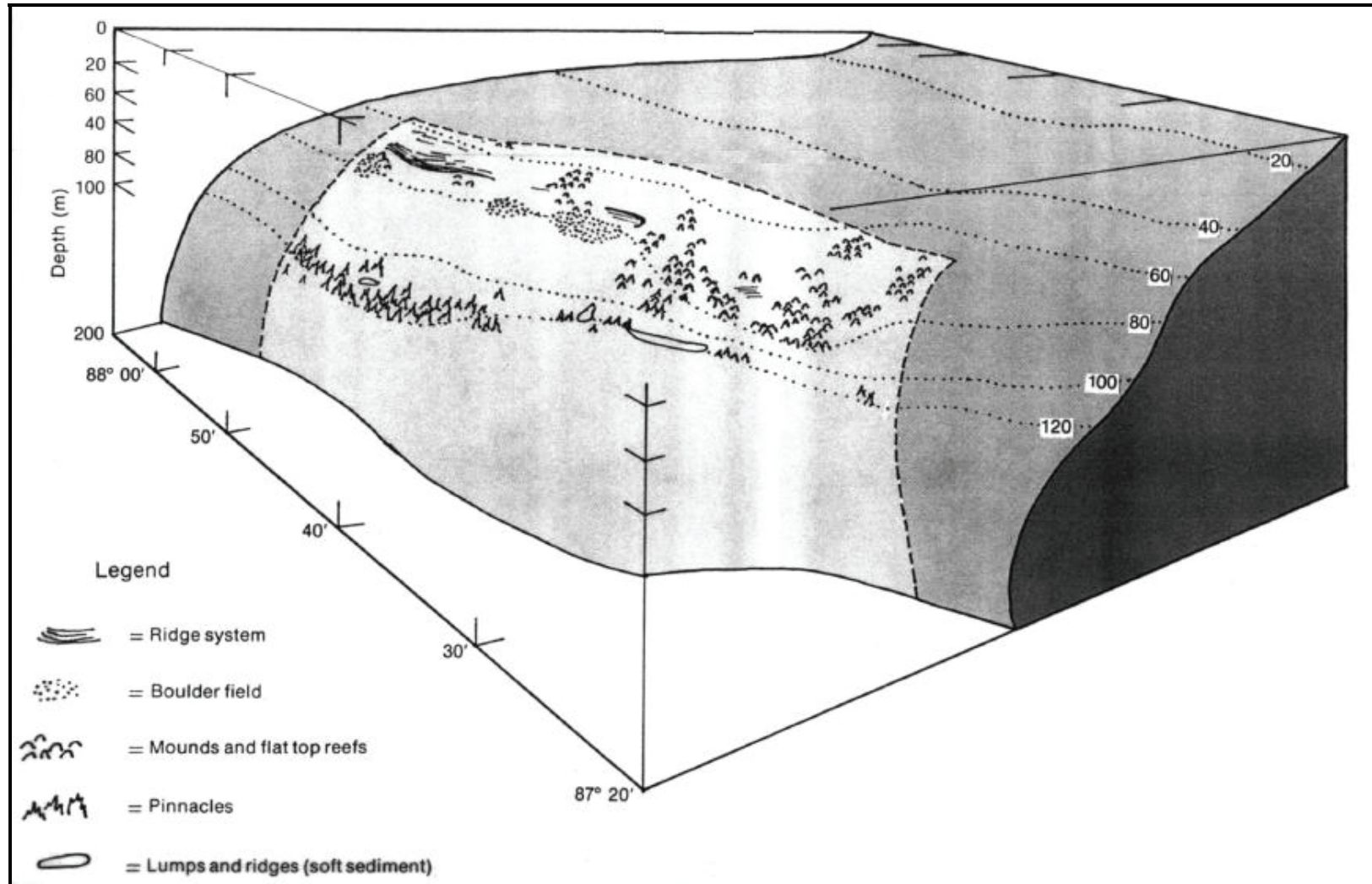


Figure 3-3. Frequency of Hypoxia in the Gulf of Mexico.



Source: Brooks, 1991.

Figure 3-4. Perspective View of the Central Sector of the Mississippi-Alabama Continental Shelf Showing the General Distribution of Different Types of Topographic Features in the Depth Range of 60-120 m. (Light shading indicates the area surveyed for topographic features.)

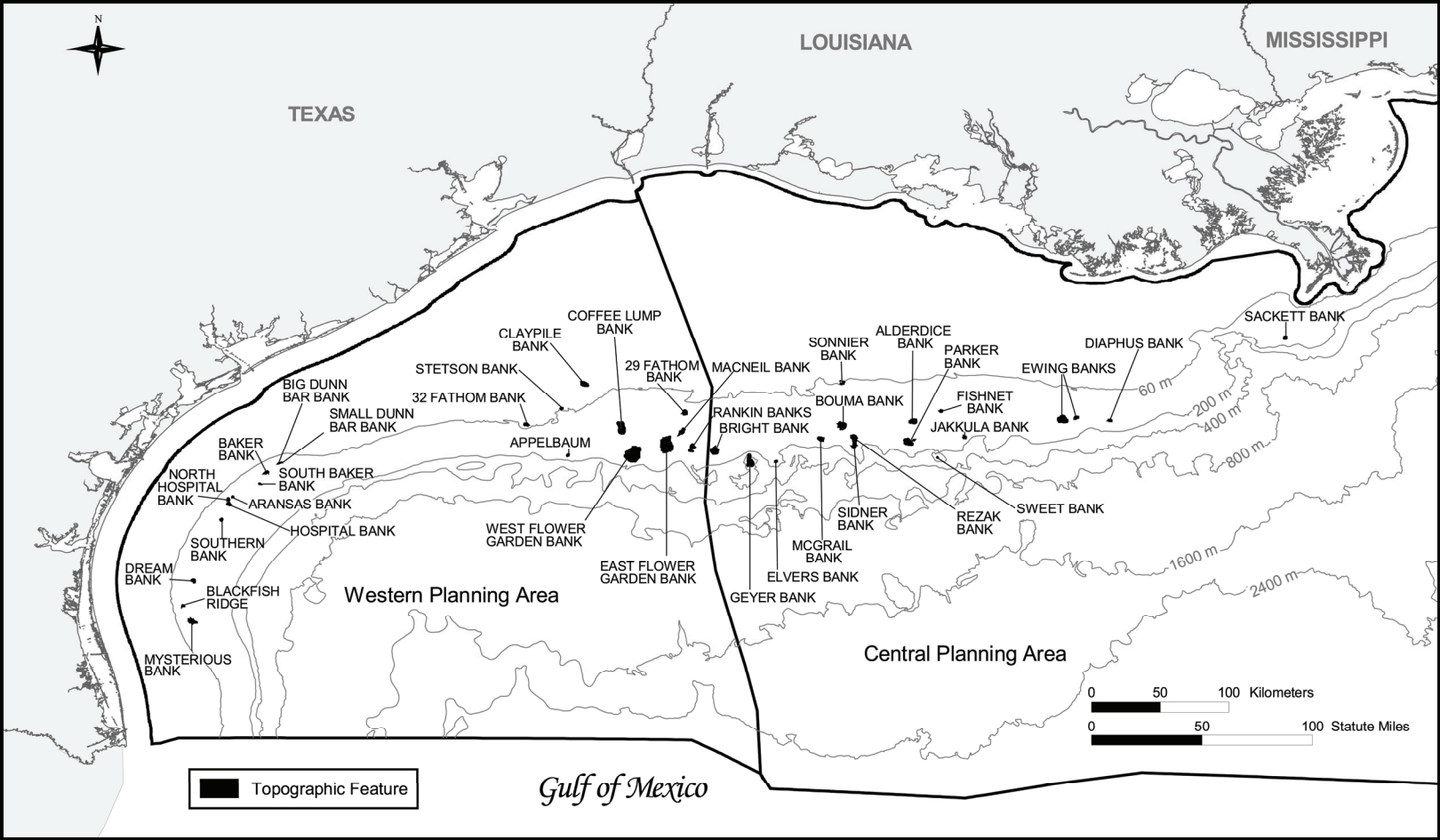


Figure 3-5. Location of Topographic Features in the Gulf of Mexico.

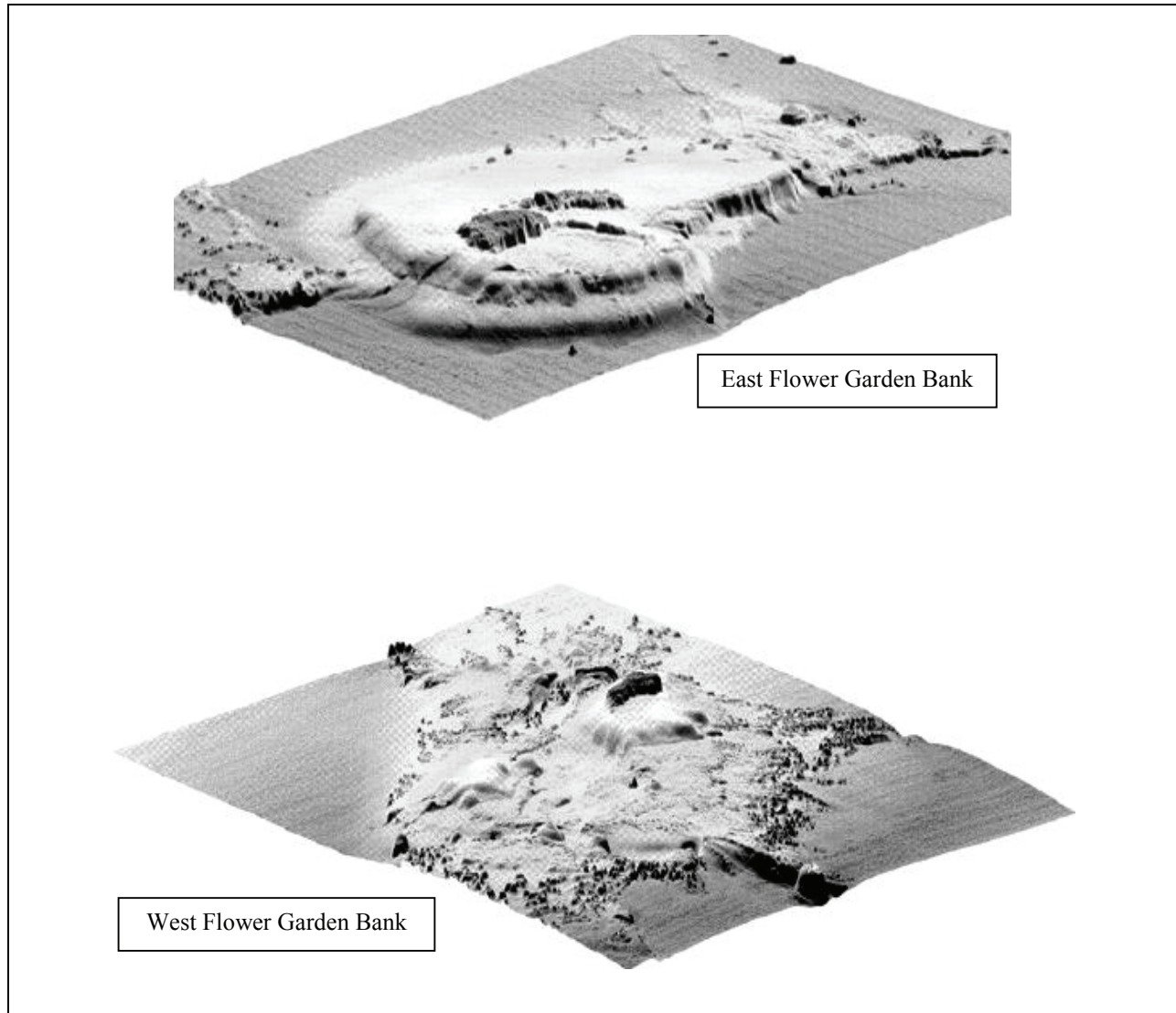


Figure 3-6. Vertically-exaggerated, Multibeam Bathymetric Images of the East (top) and West (bottom) Flower Garden Banks Illustrating the Topographic Formation of Each Reef System (C&C Technologies Inc., 1996).

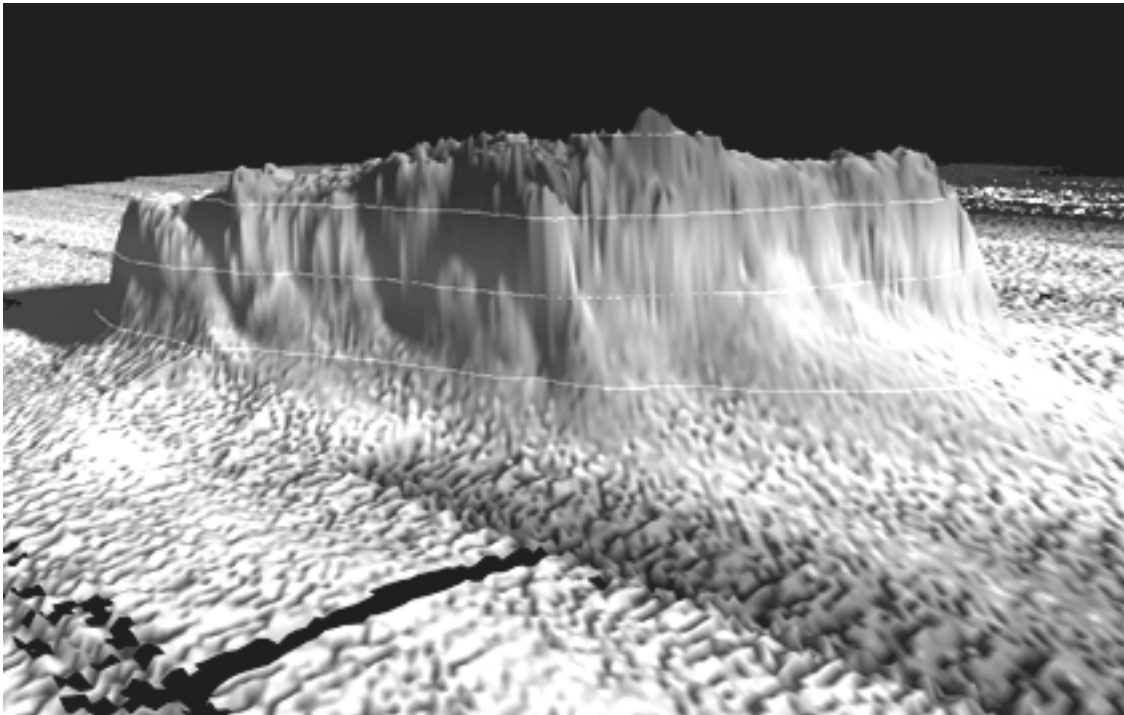


Figure 3-7. Vertically-exaggerated, Multibeam Bathymetric Topographic Image of Stetson Bank Showing the Vertical Orientation of this Midshelf Topographic Formation (Gardner, 2000).

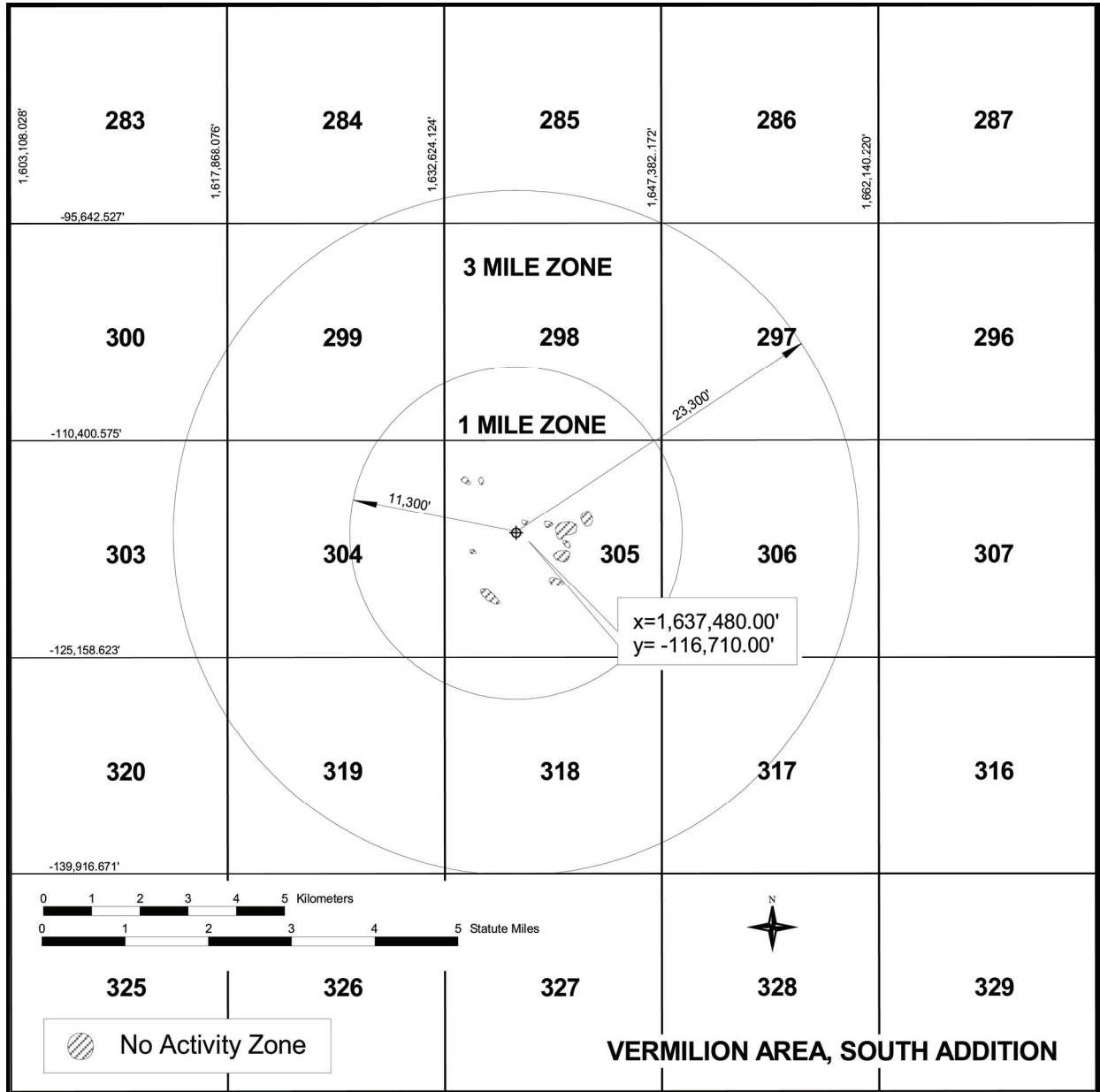


Figure 3-8. Sonnier Bank and Protective Zones in the Proposed Topographic Features Stipulation.

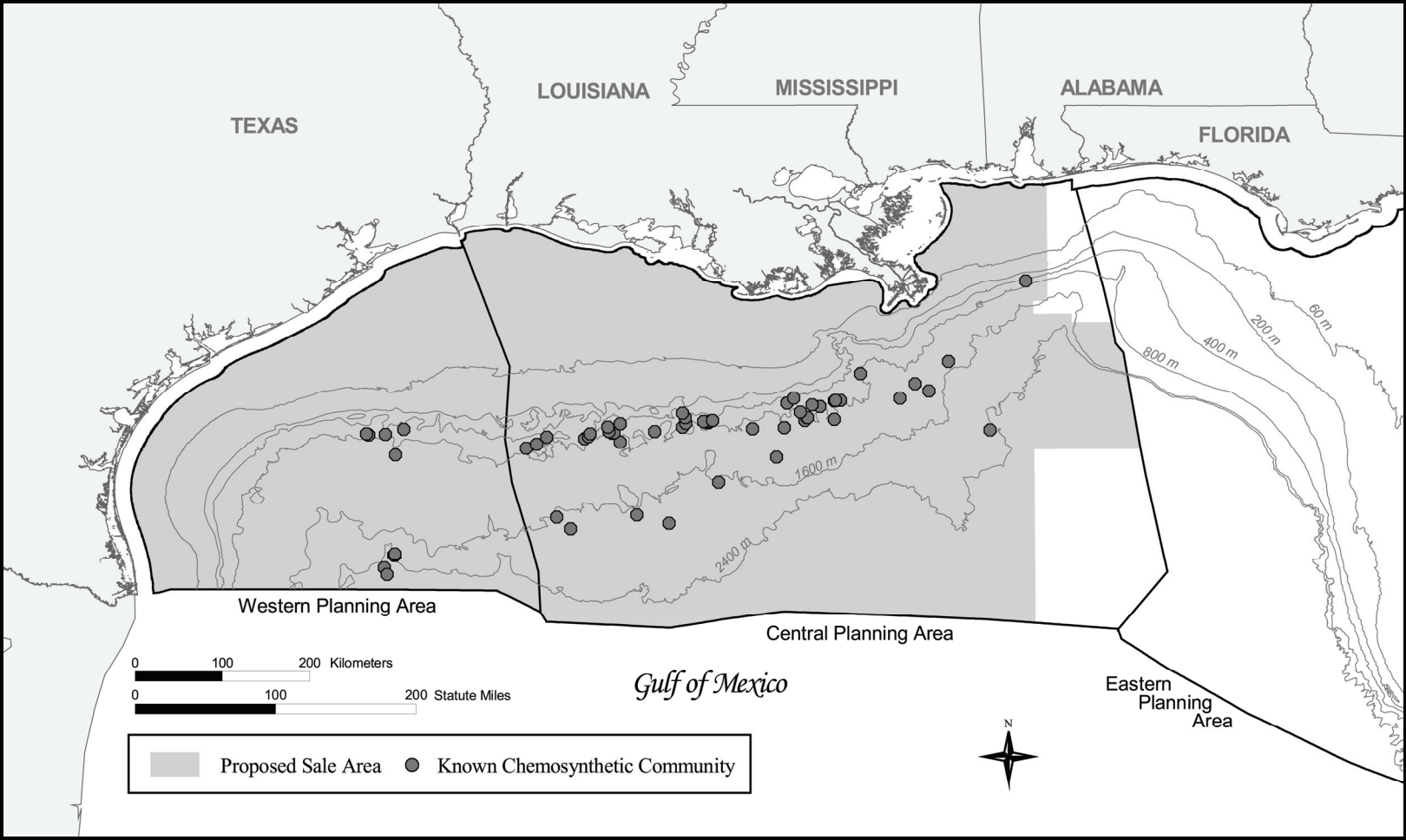


Figure 3-9. Location of Known Chemosynthetic Communities in the Gulf of Mexico.



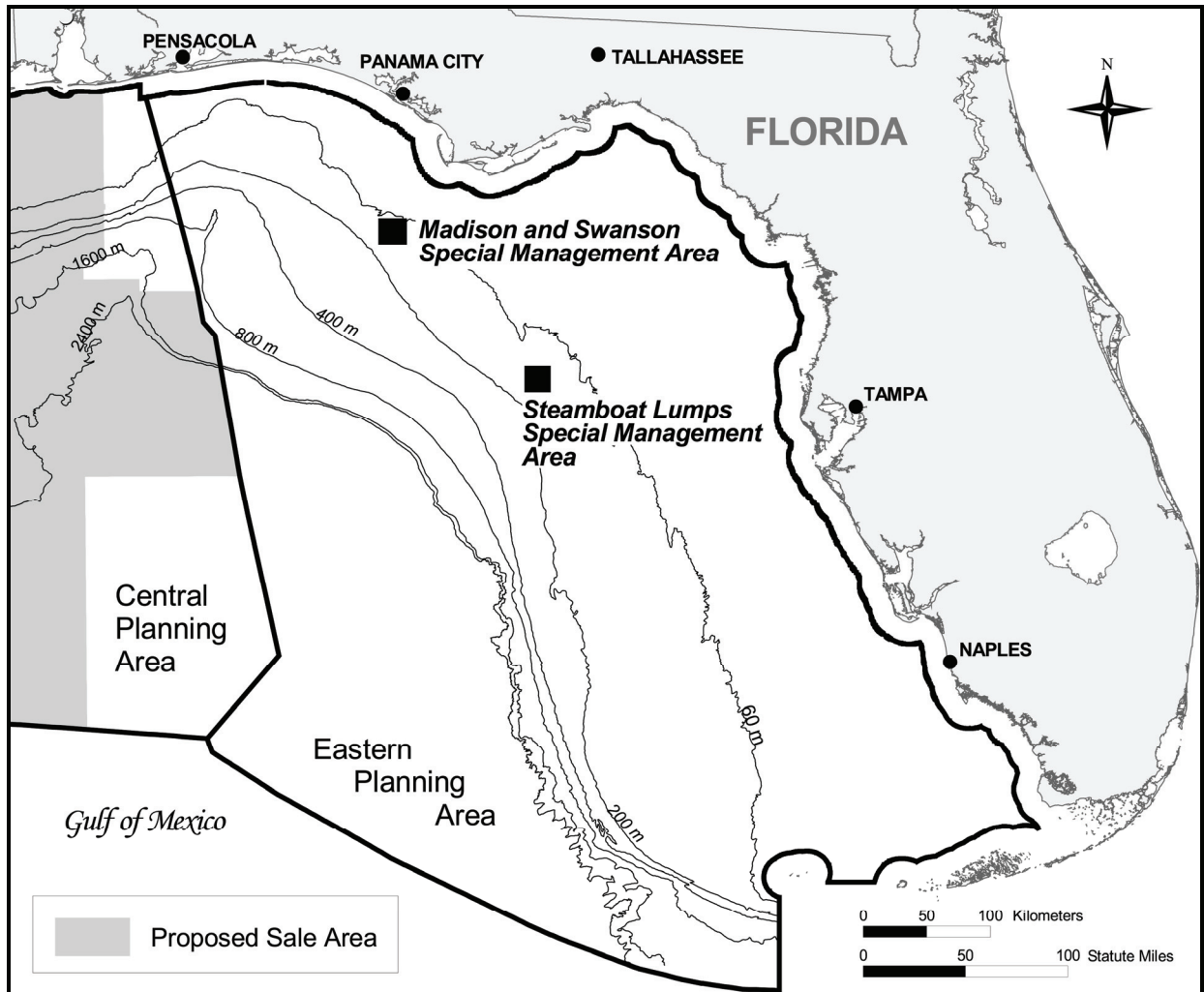


Figure 3-10. Marine Protected Areas in the Gulf of Mexico.

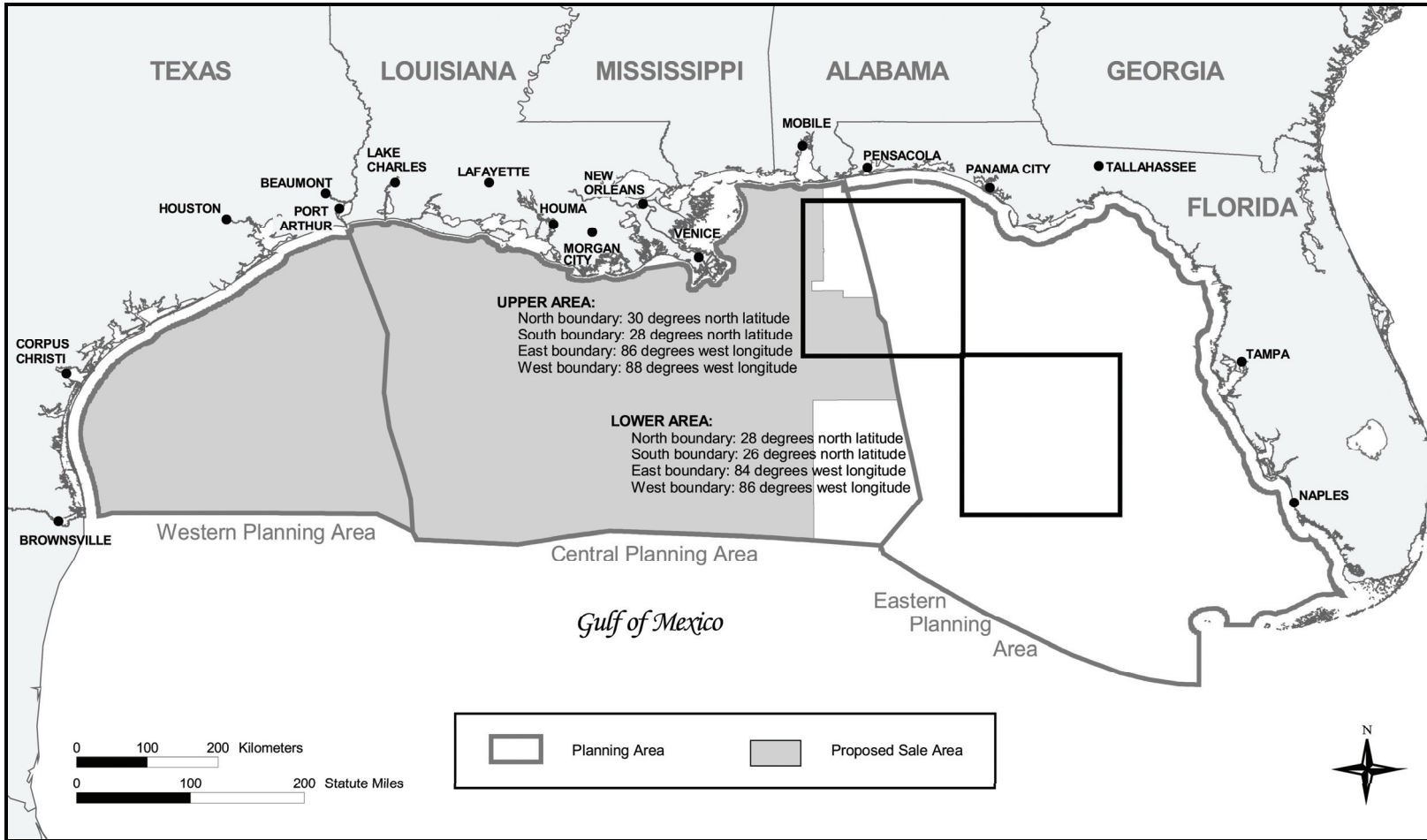


Figure 3-11. Areas Closed to Longline Fishing in the Gulf of Mexico.

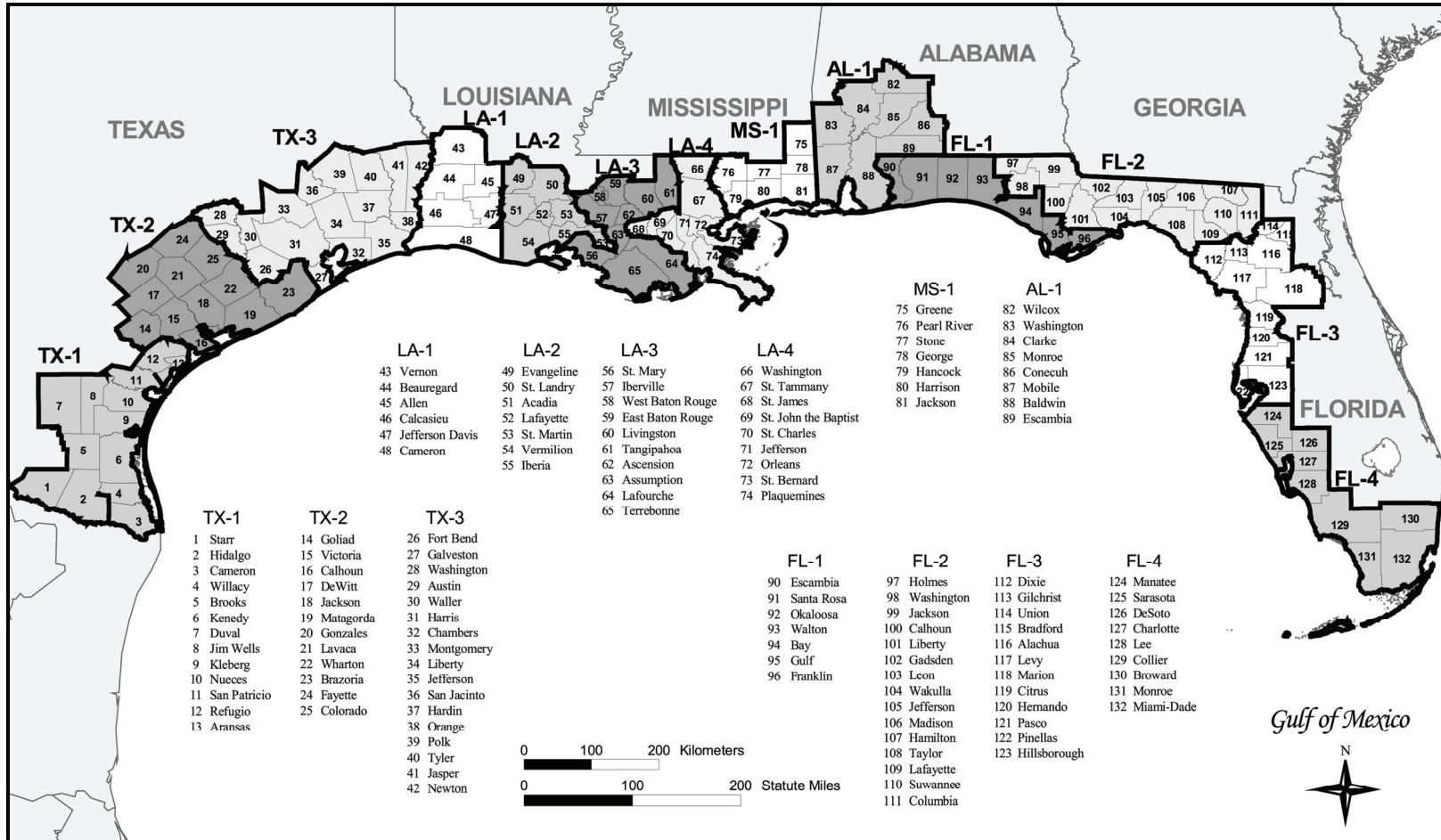
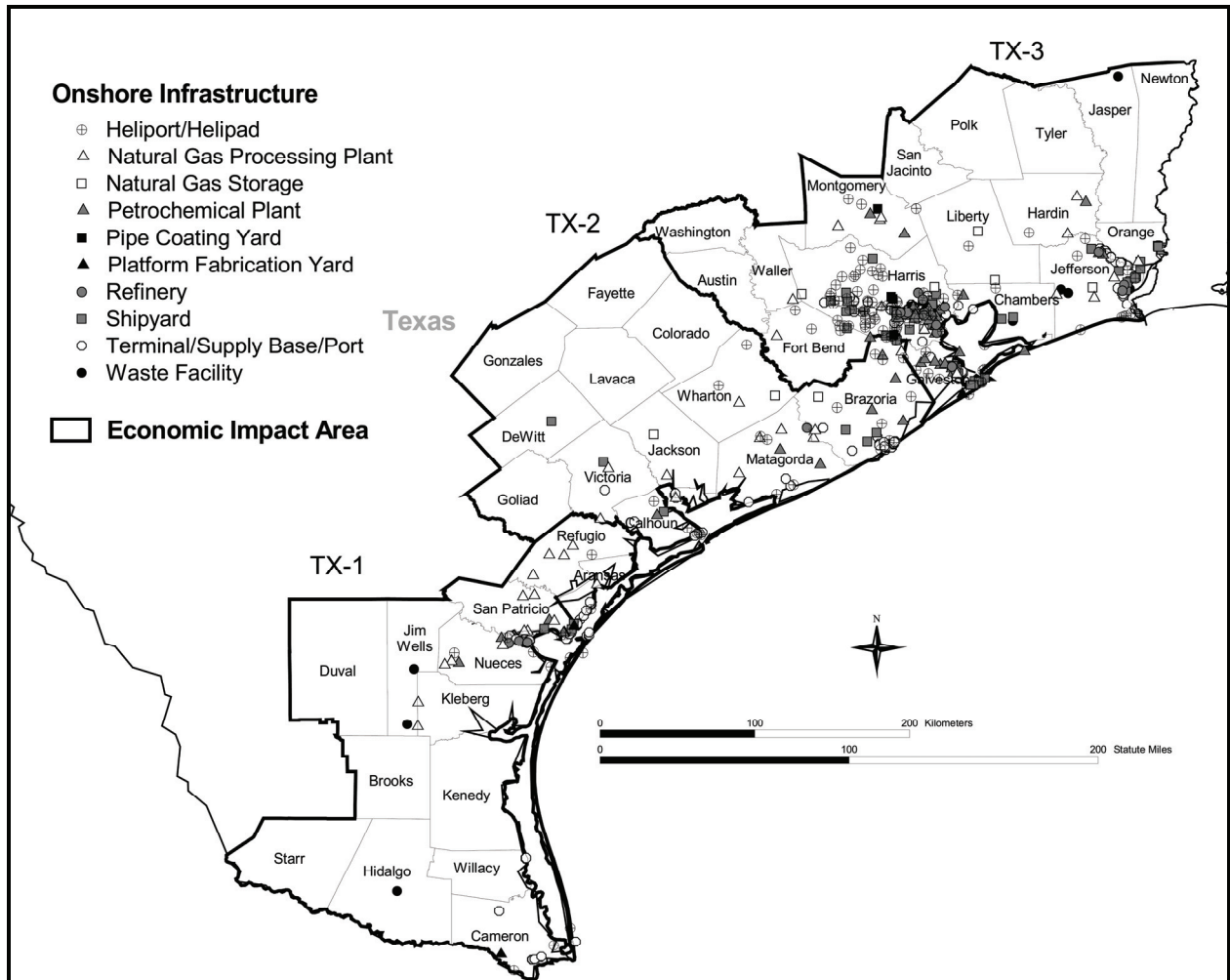
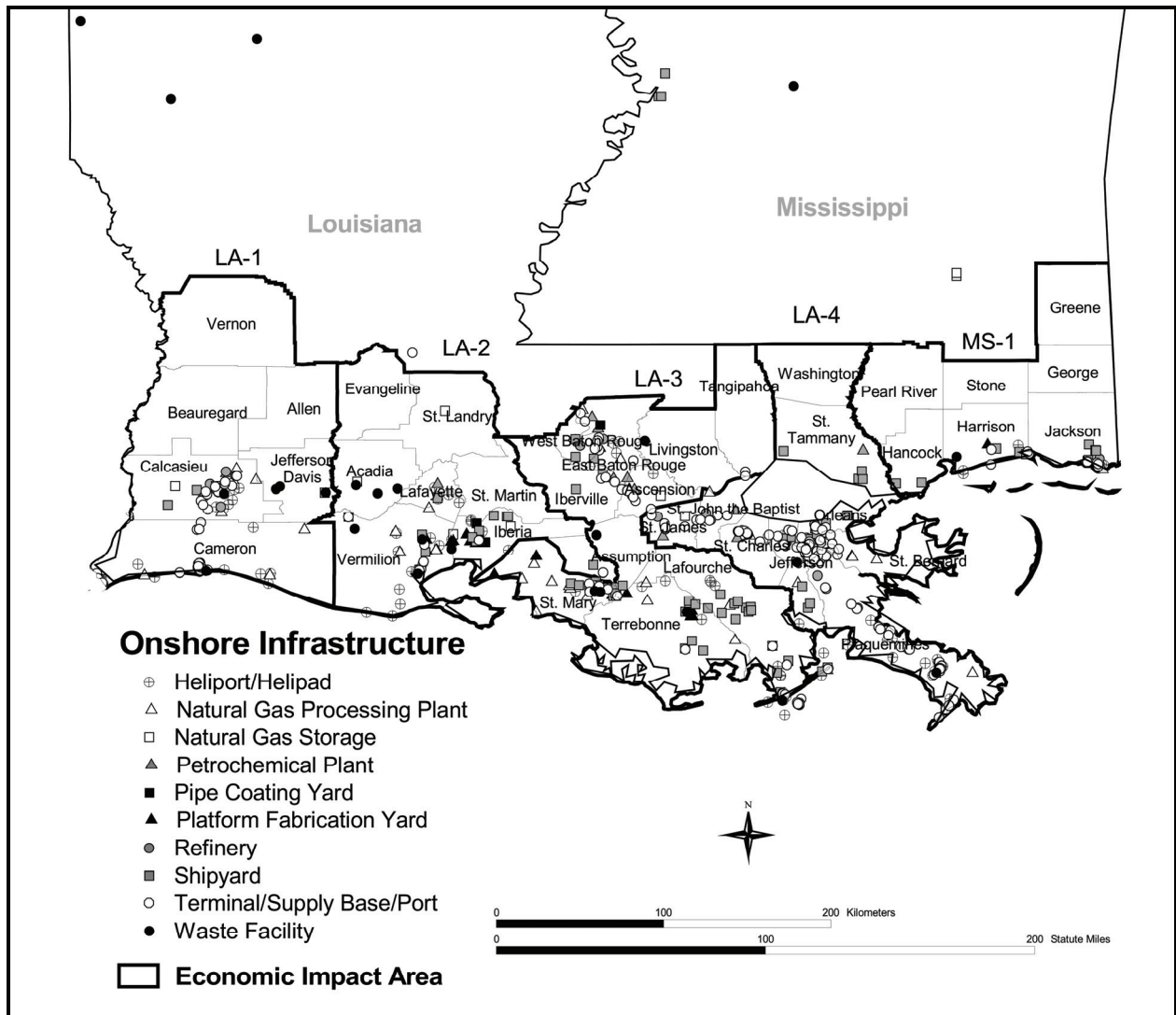


Figure 3-12. Economic Impact Areas in the Gulf of Mexico.



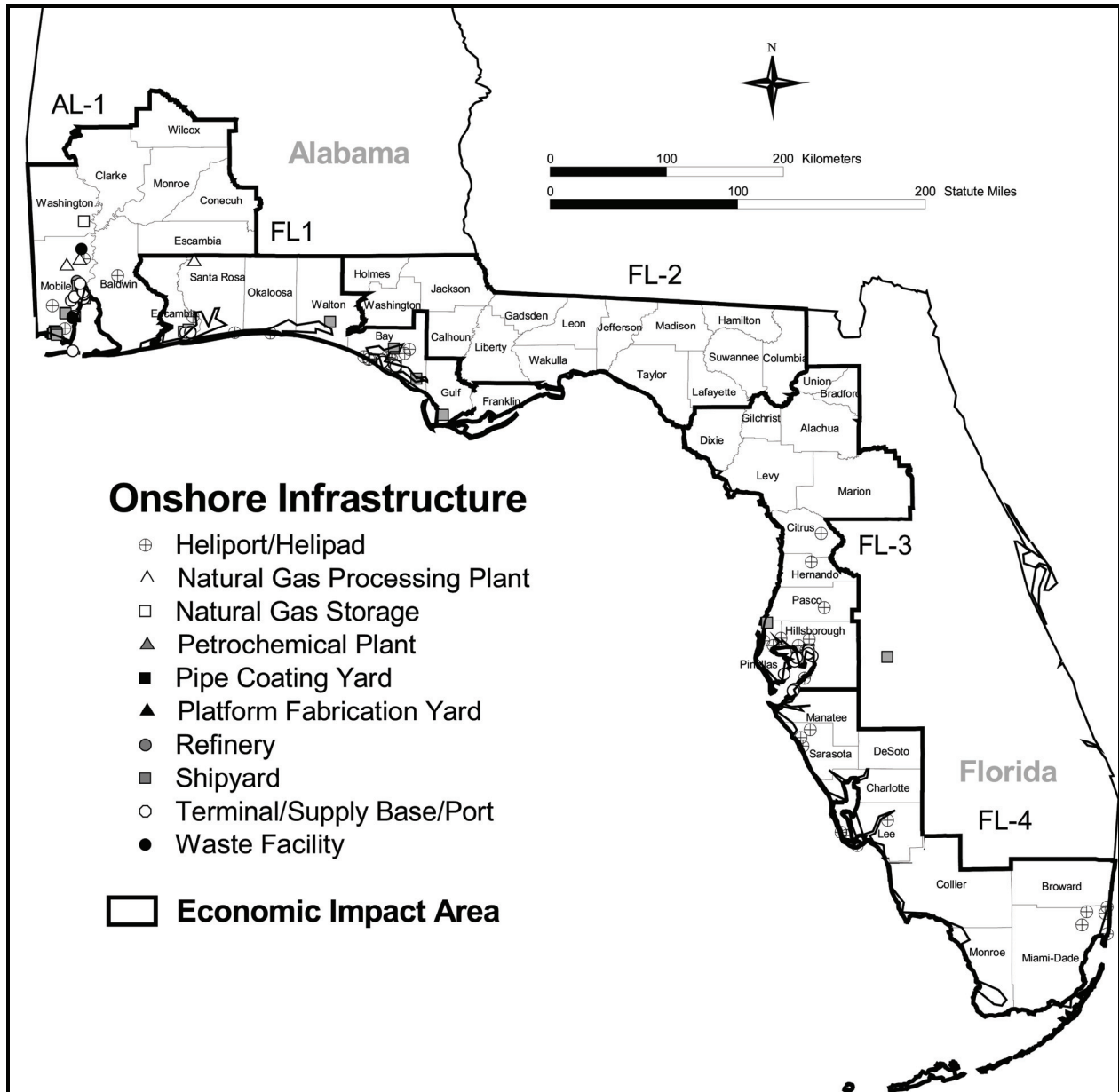
Source: Louis Berger Group, Inc., 2004.

Figure 3-13. Onshore Infrastructure Located in Texas.



Source: Louis Berger Group, Inc., 2004.

Figure 3-14. Onshore Infrastructure Located in Louisiana and Mississippi.



Source: Louis Berger Group, Inc., 2004.

Figure 3-15. Onshore Infrastructure Located in Alabama and Florida.

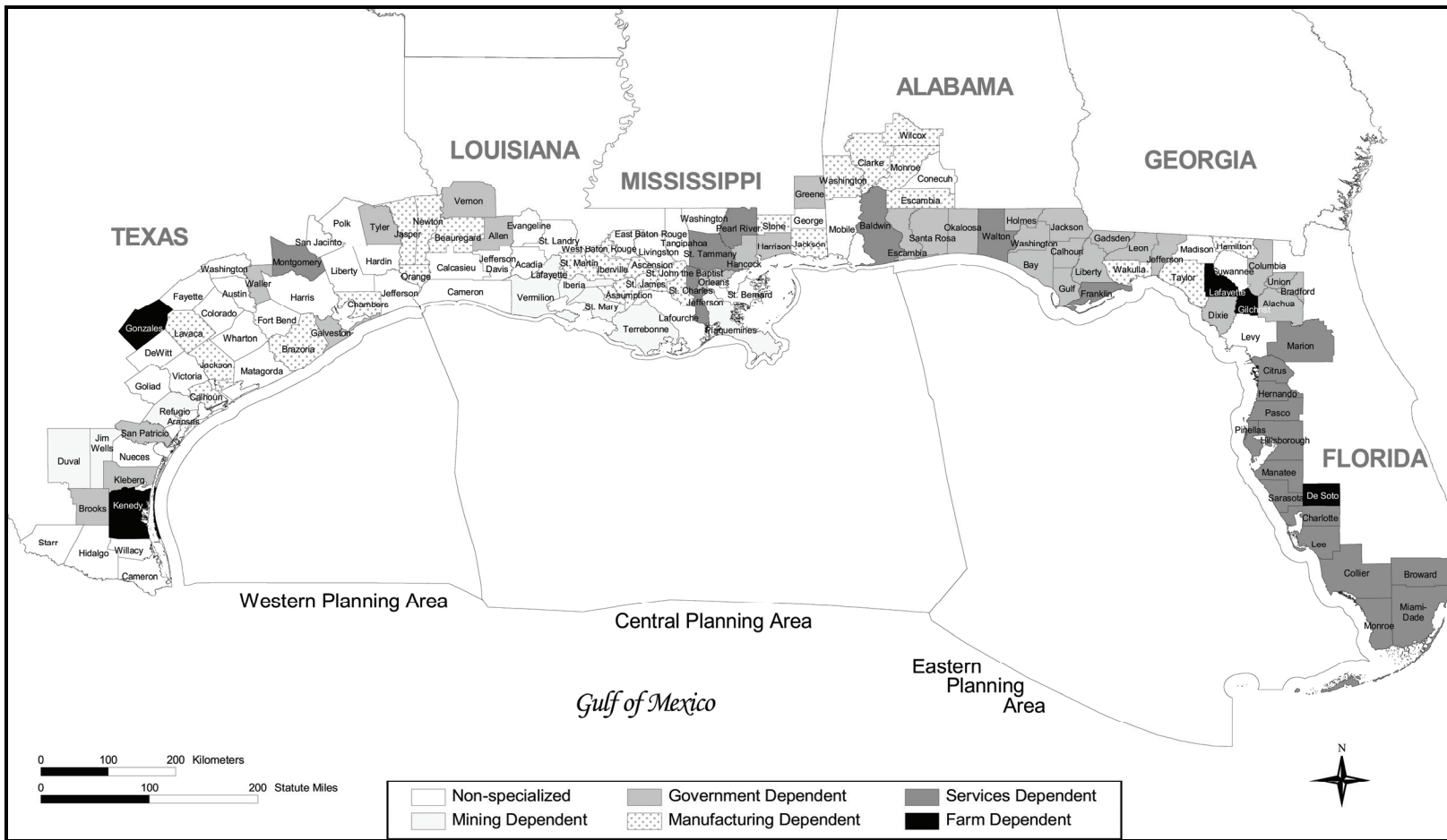


Figure 3-16. Economic Land Use Patterns.

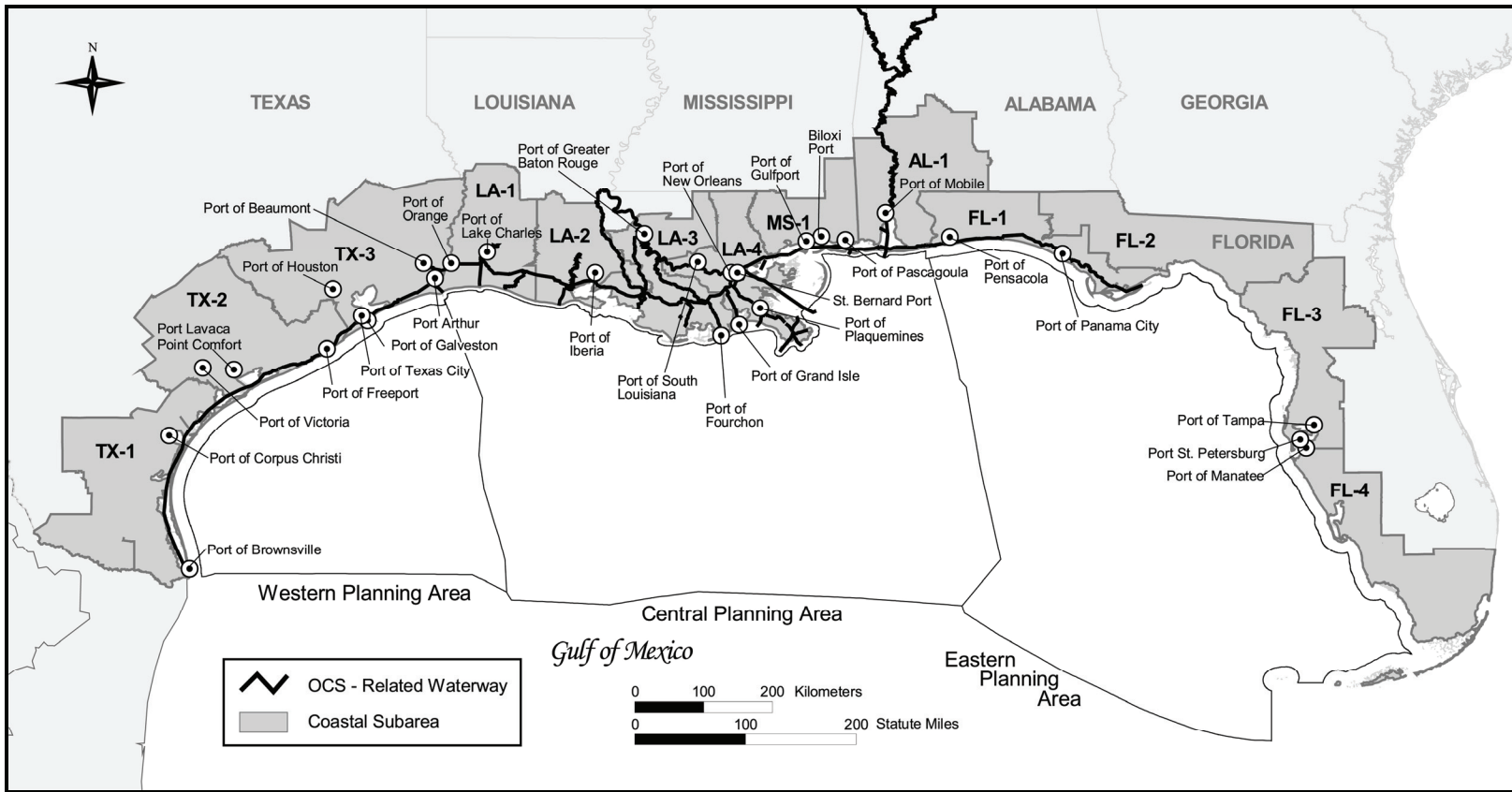
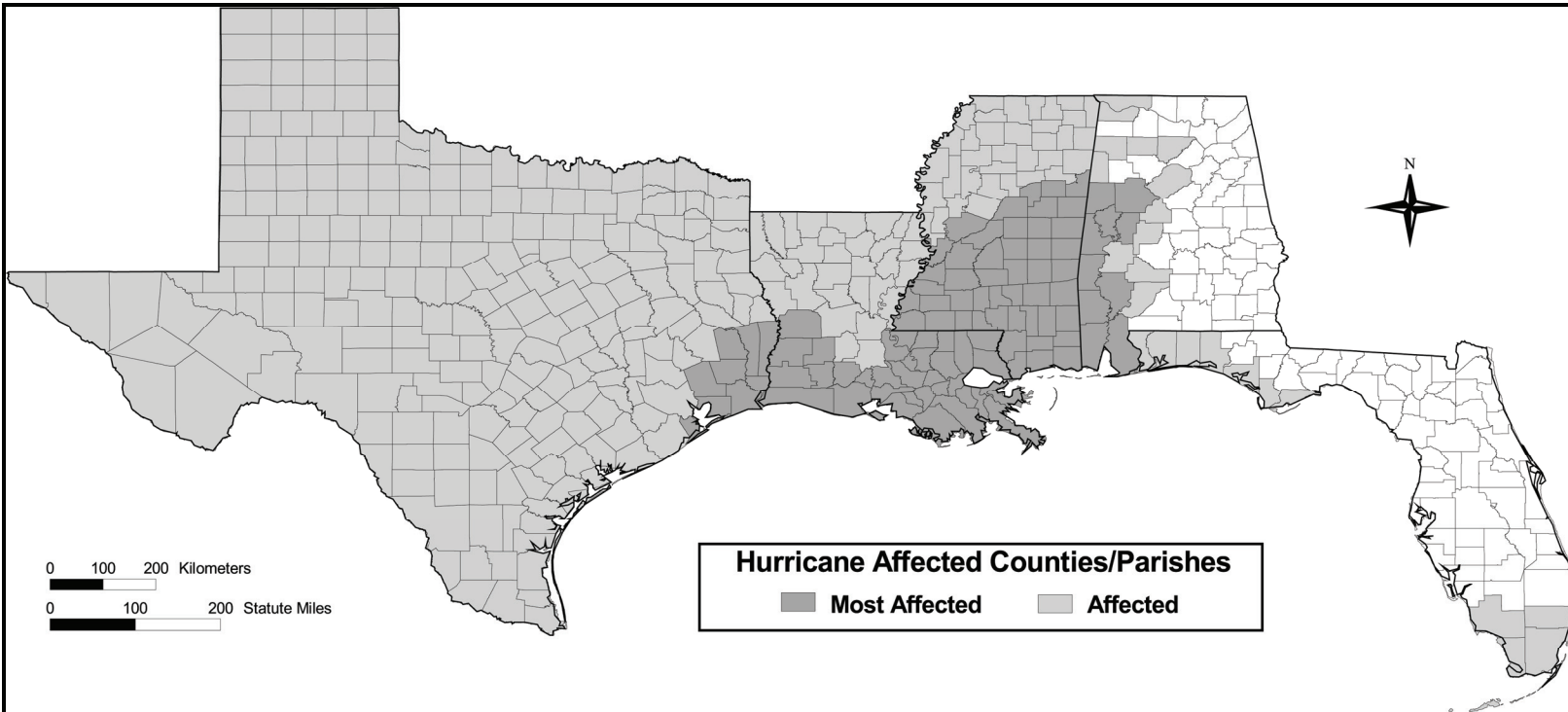


Figure 3-17. Major Ports and Domestic Waterways in the Gulf of Mexico.





Source: U.S. Dept. of Labor, Bureau of Labor Statistics, 2006.

Figure 3-18. Counties and Parishes Designated for FEMA Assistance Following Hurricanes Katrina and Rita.

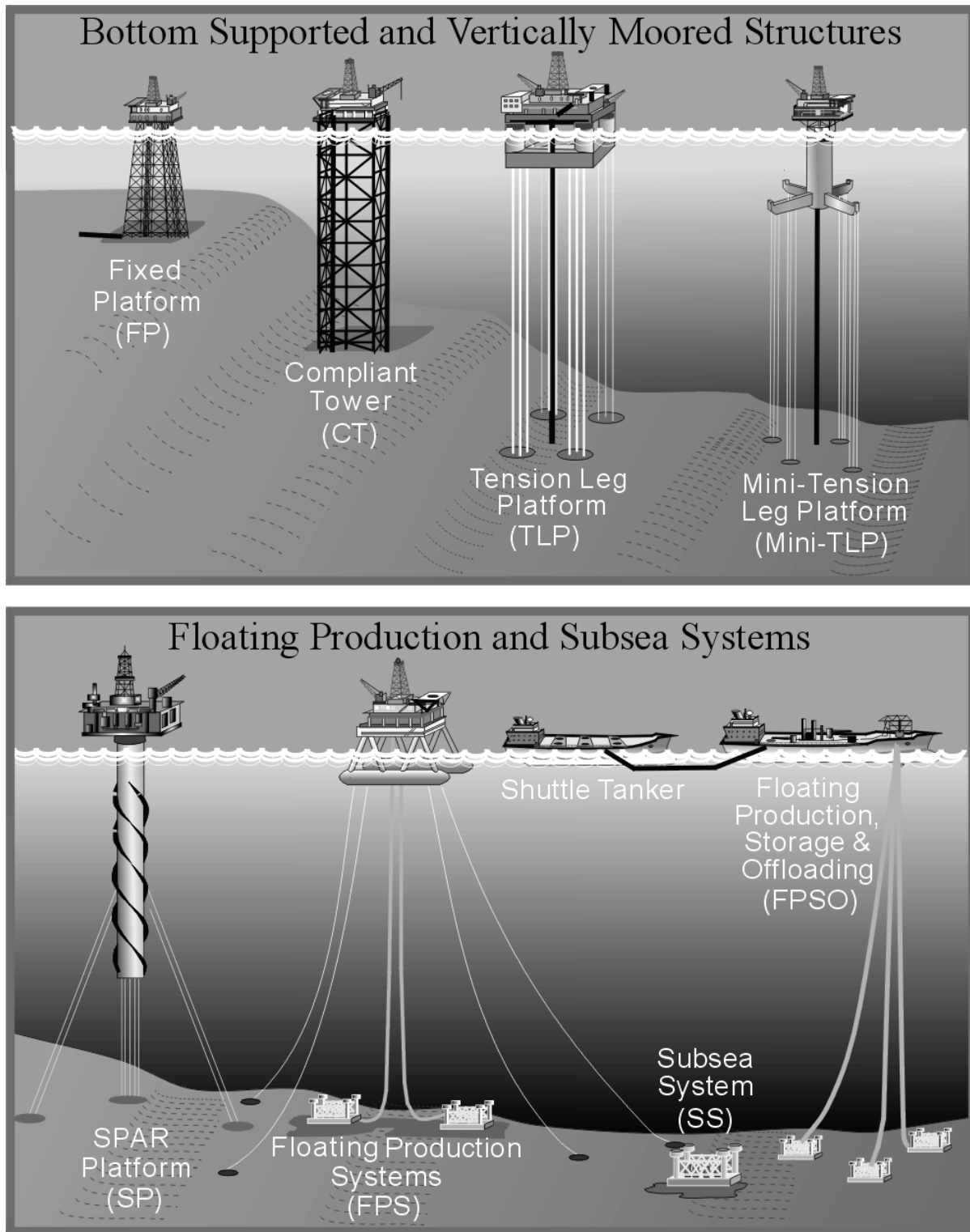


Figure 3-19. Types of Deepwater Production Structures.

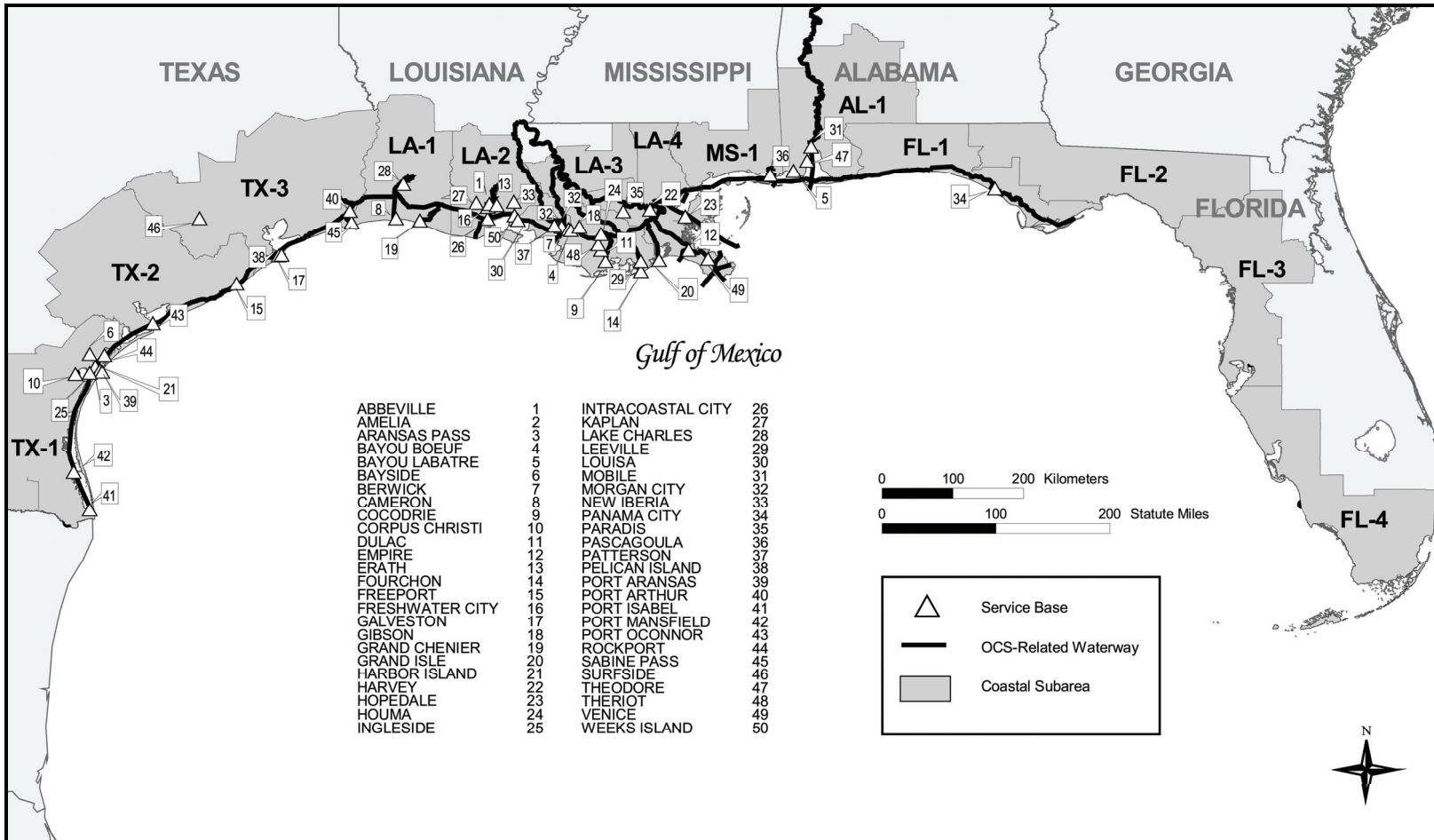


Figure 3-20. OCS-Related Service Bases in the Gulf of Mexico.

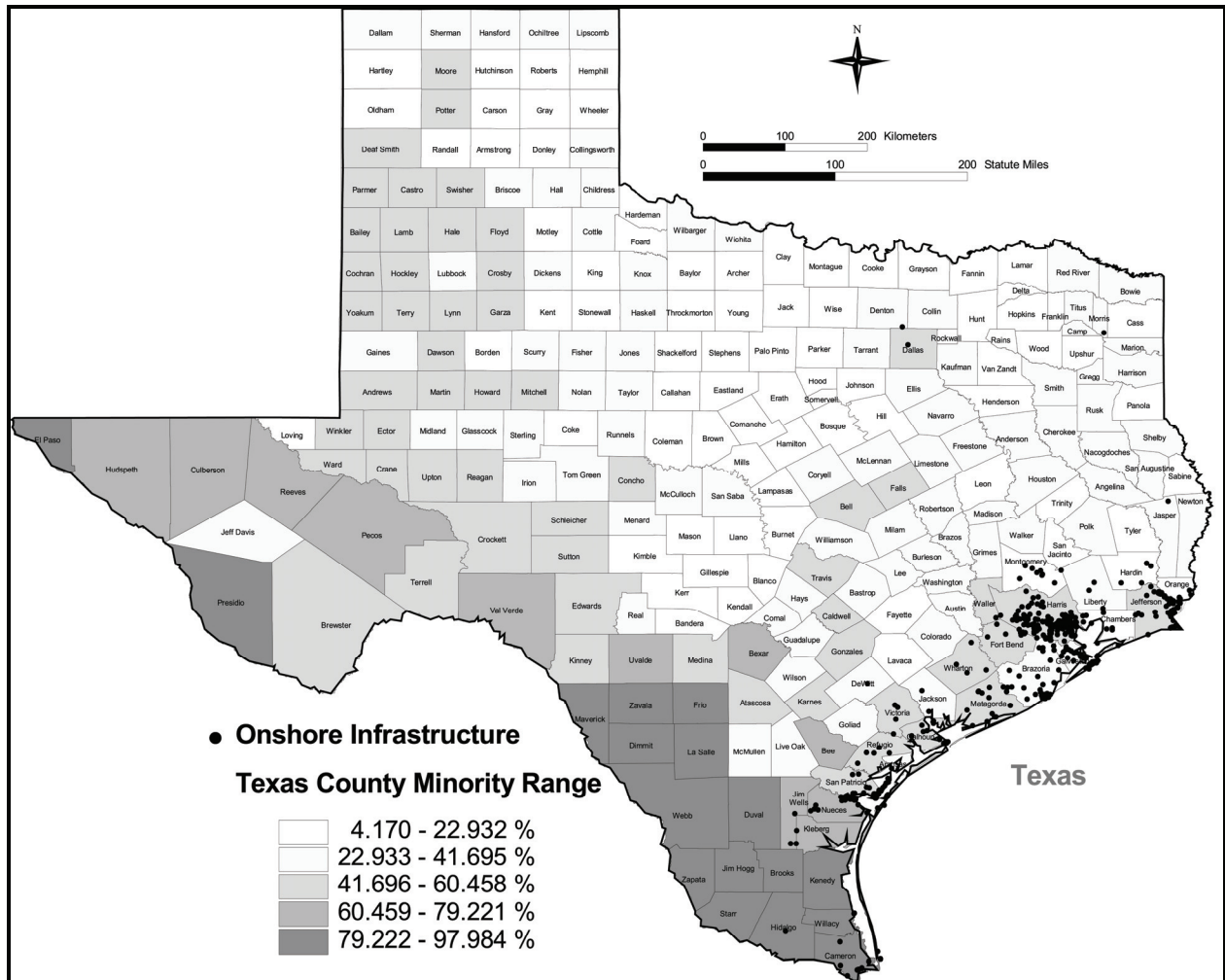


Figure 3-21. Percentage of Minority Population by County in Texas.

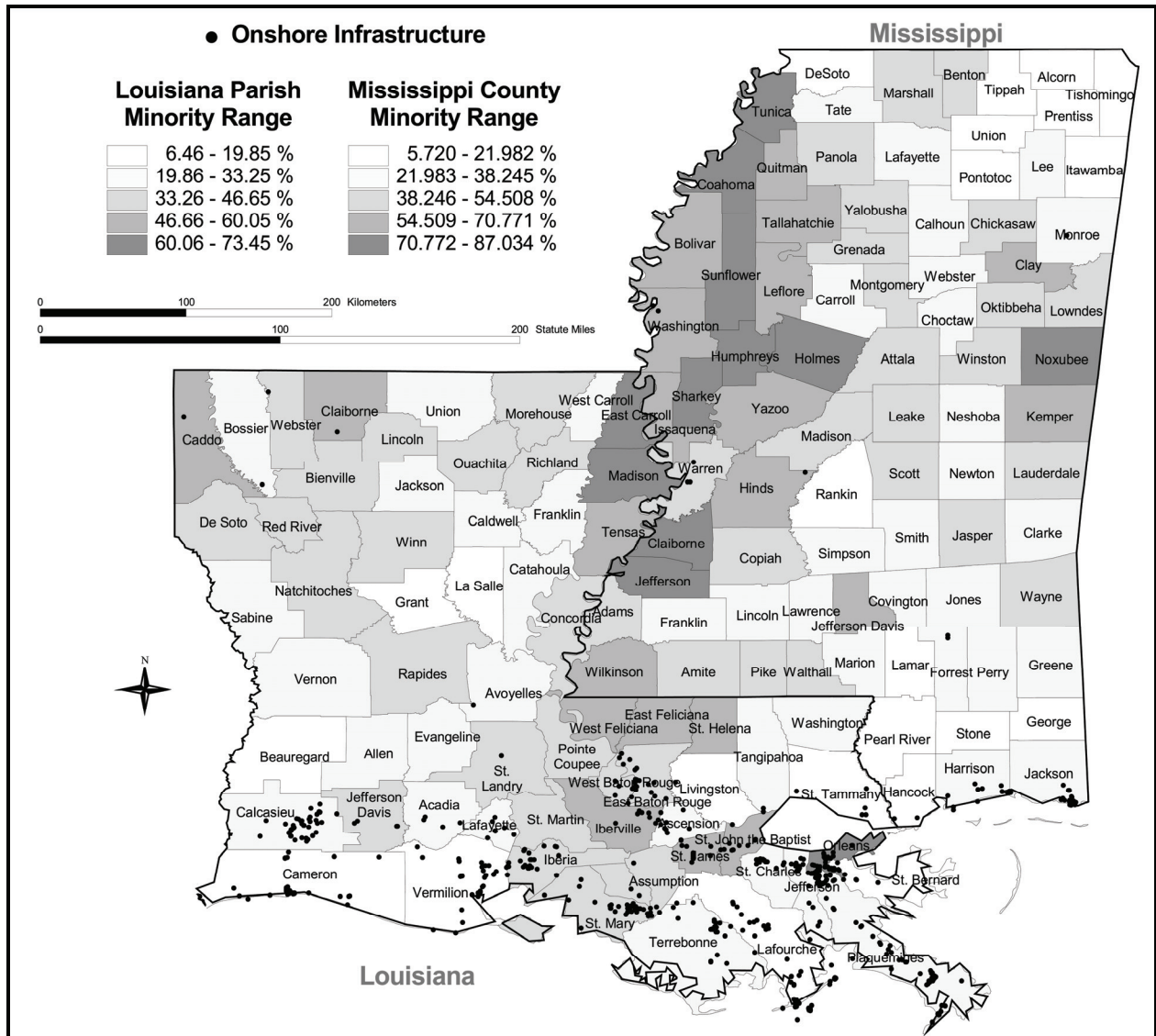


Figure 3-22. Percentage of Minority Population by Parish in Louisiana and by County in Mississippi.

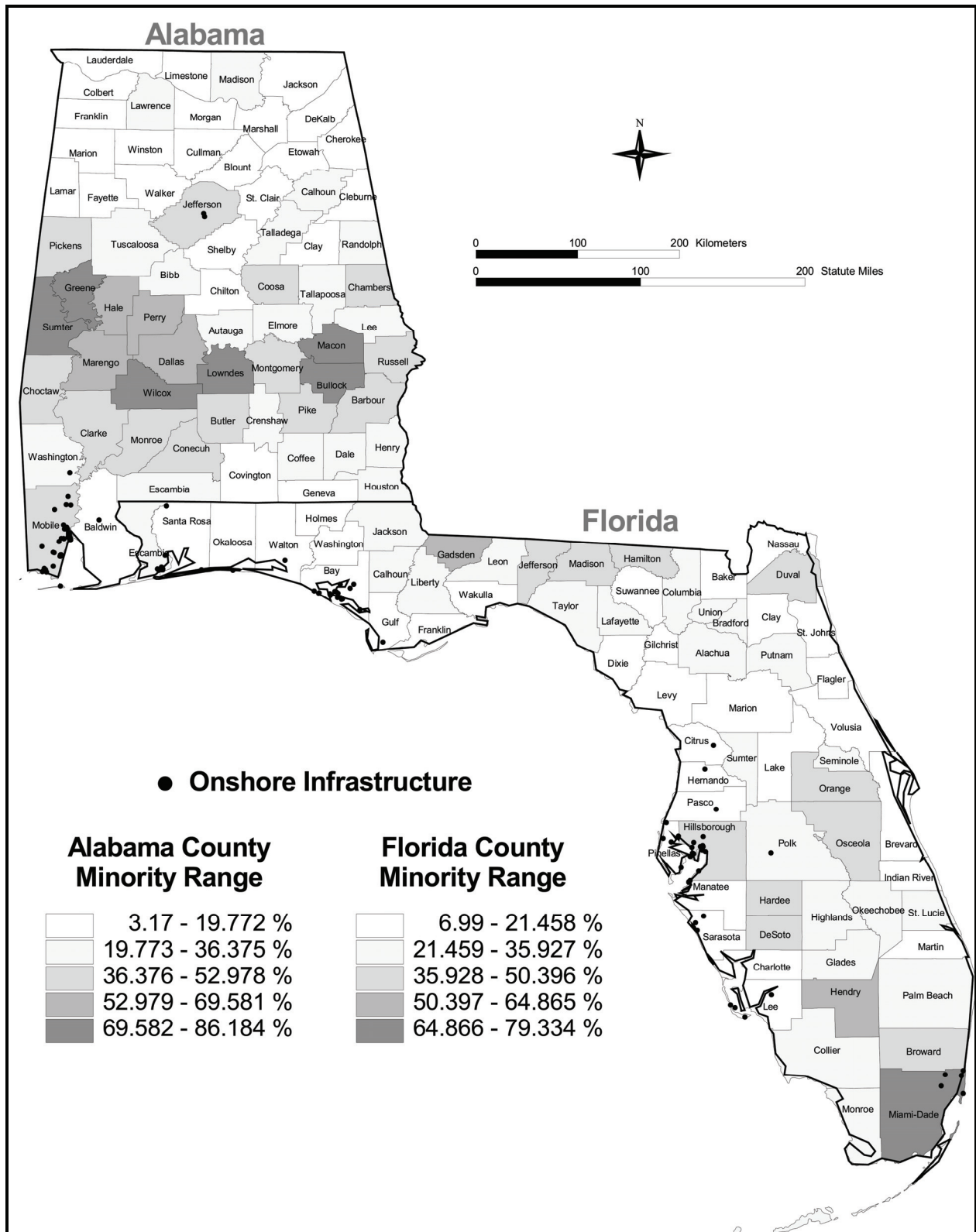


Figure 3-23. Percentage of Minority Population by County in Alabama and Florida.

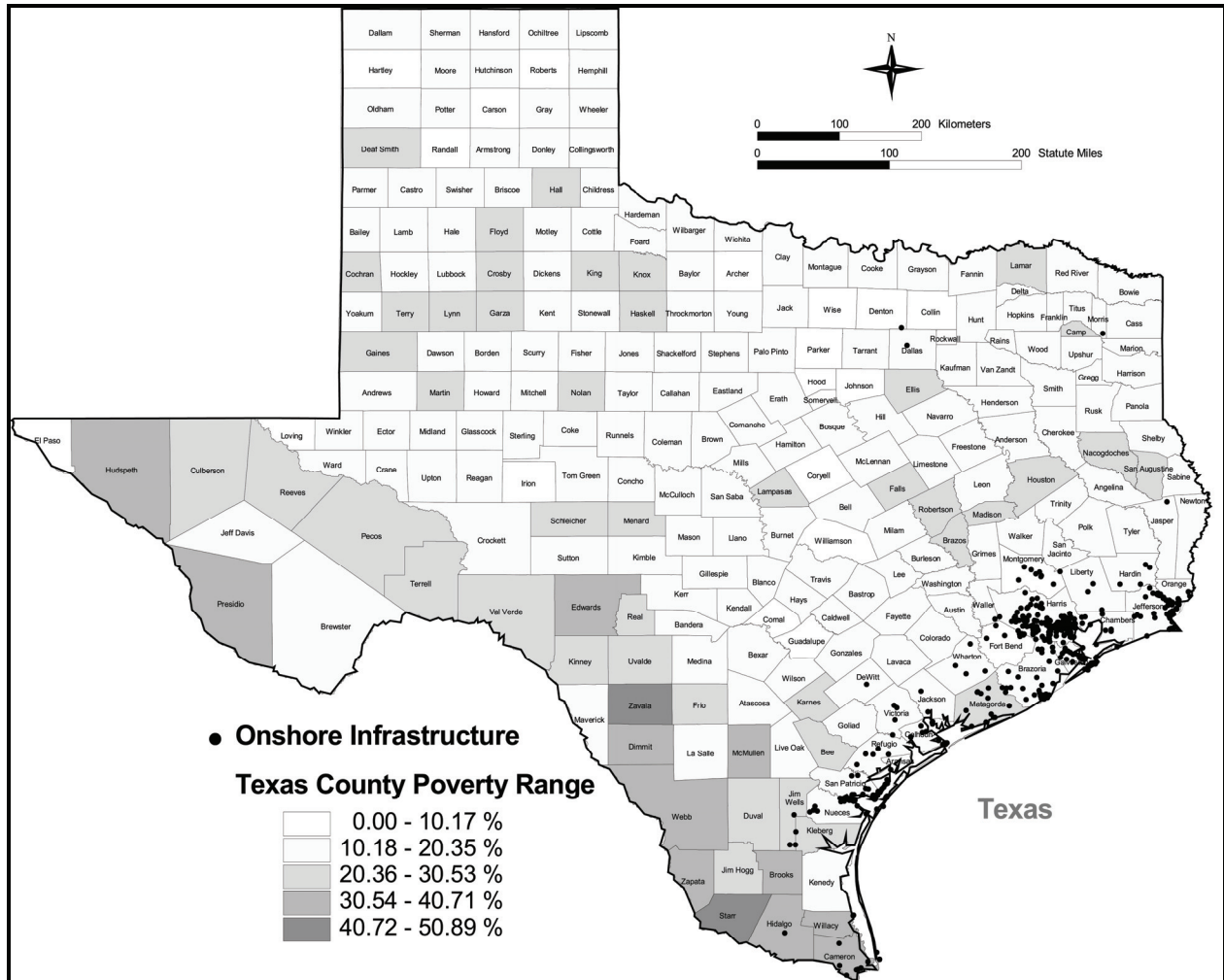


Figure 3-24. Percentage of Poverty by County in Texas.

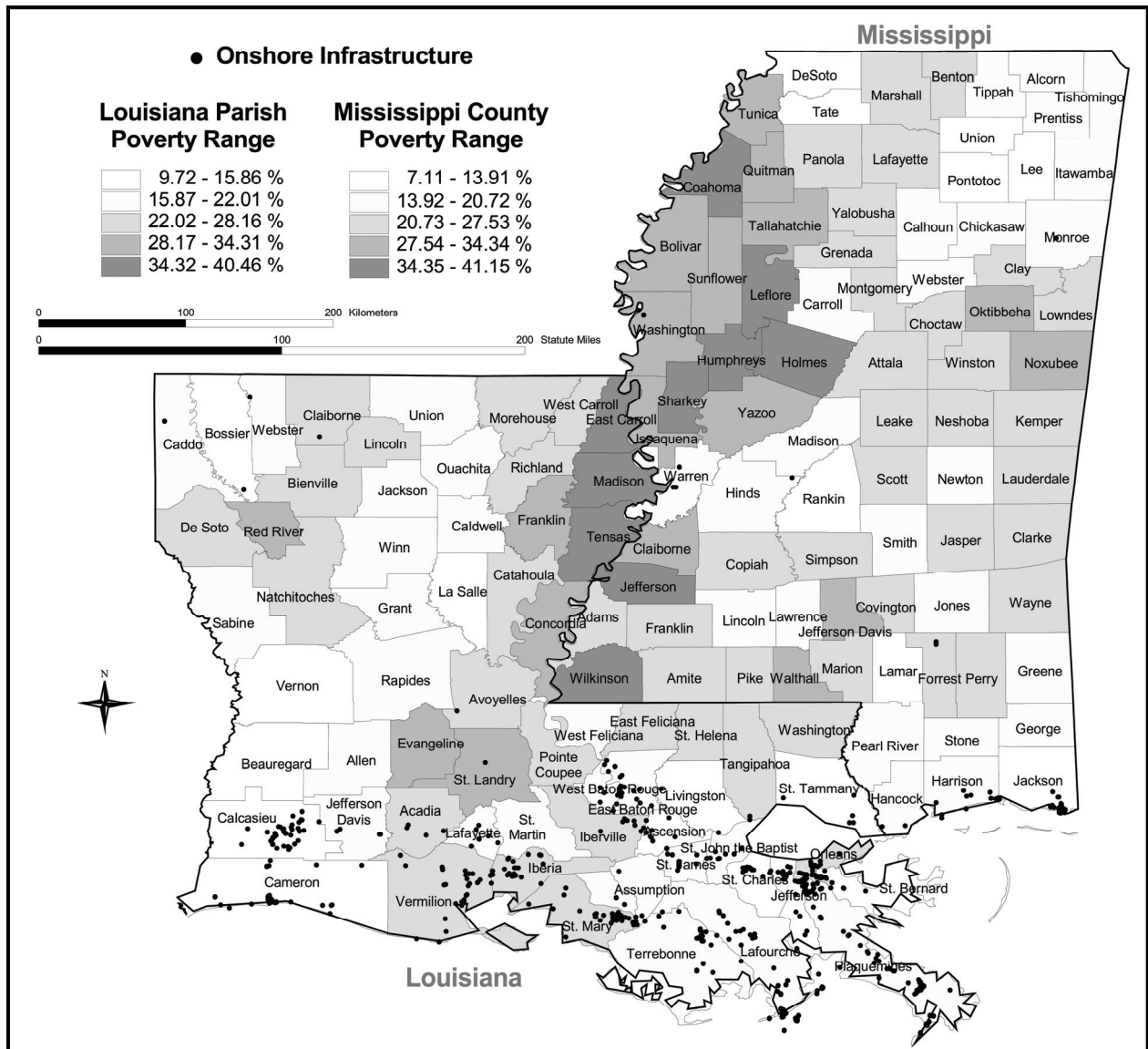


Figure 3-25. Percentage of Poverty by Parish in Louisiana and by County in Mississippi.



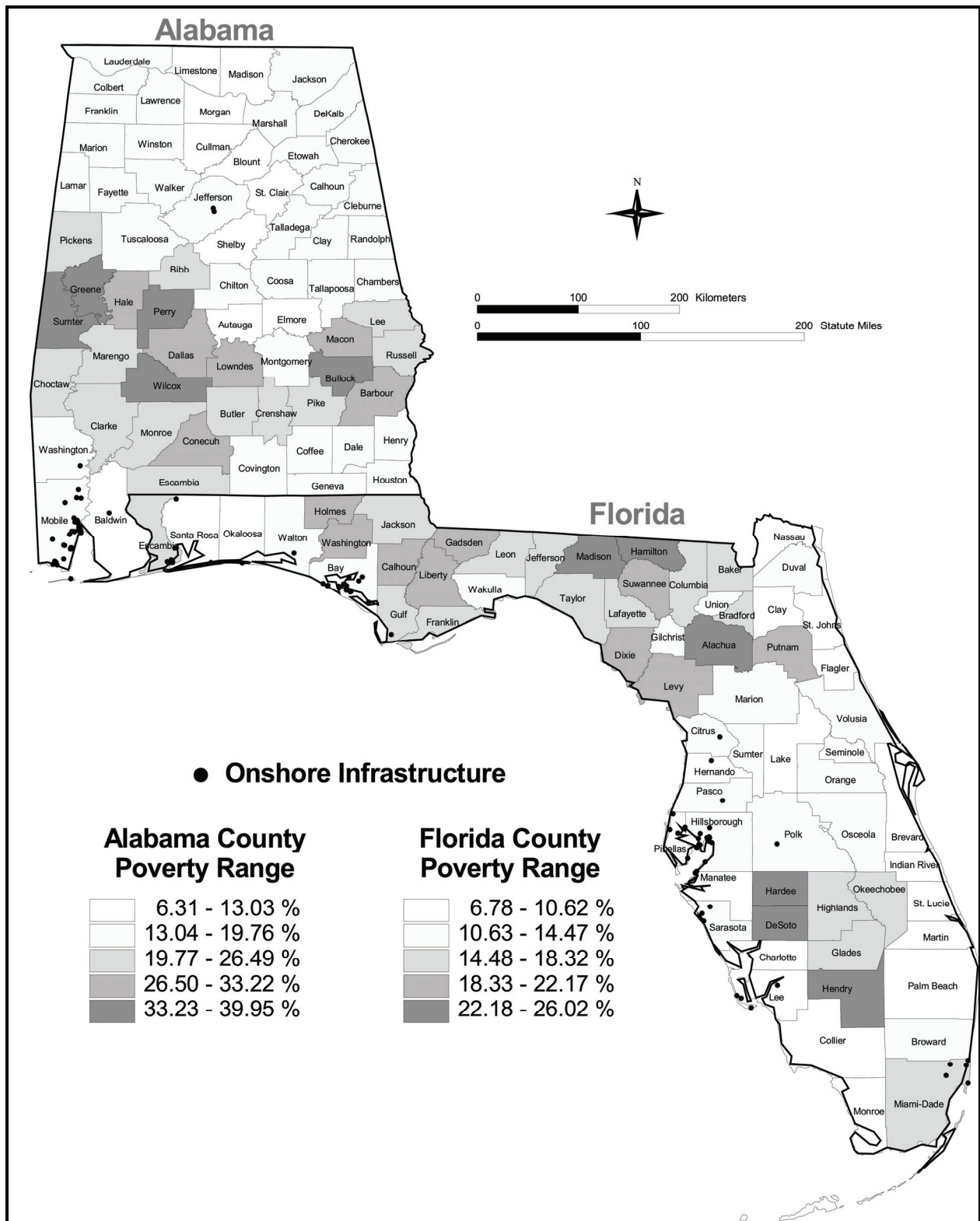


Figure 3-26. Percentage of Poverty by County in Alabama and Florida.

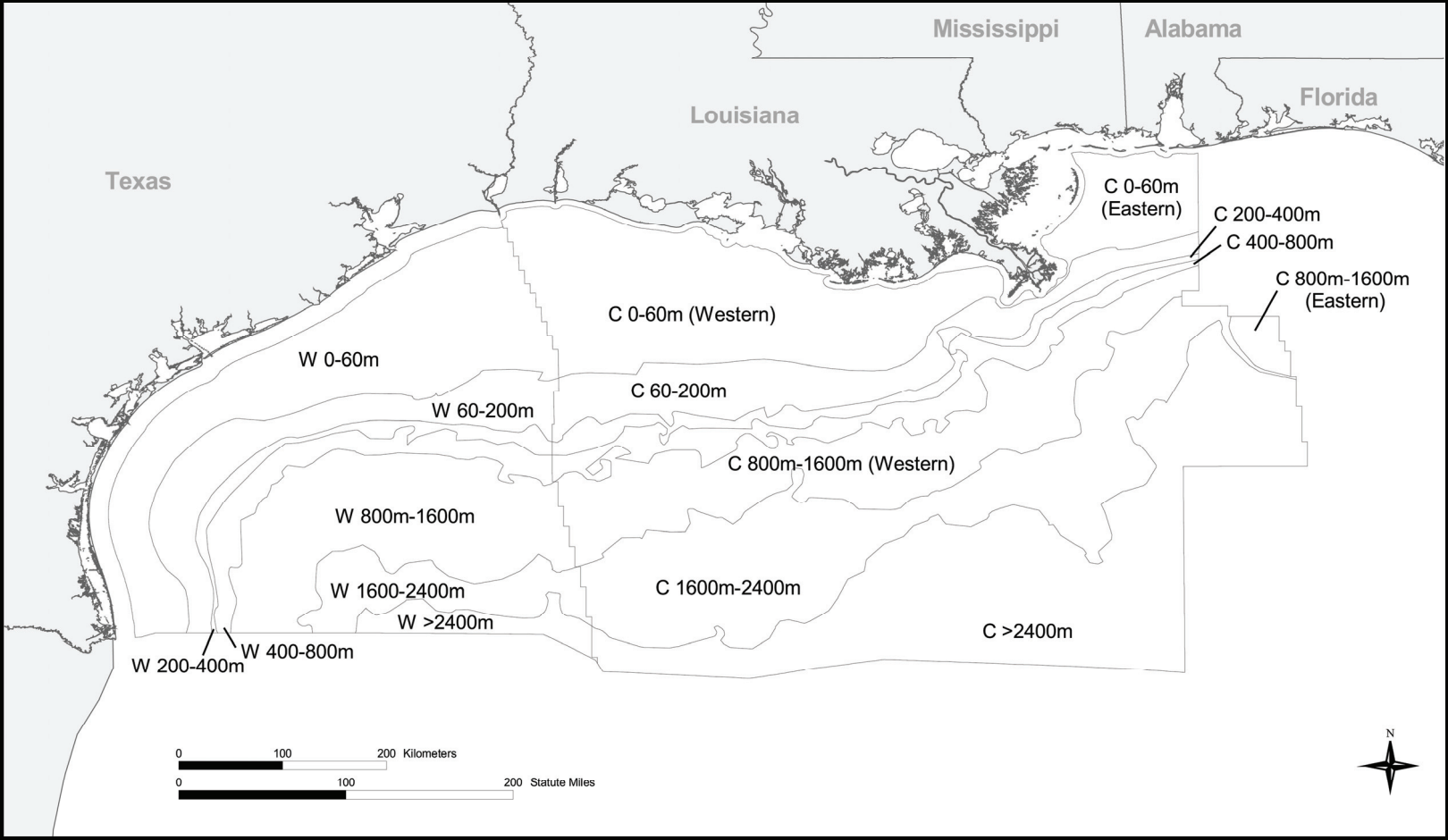


Figure 4-1. Offshore Subareas in the Gulf of Mexico.

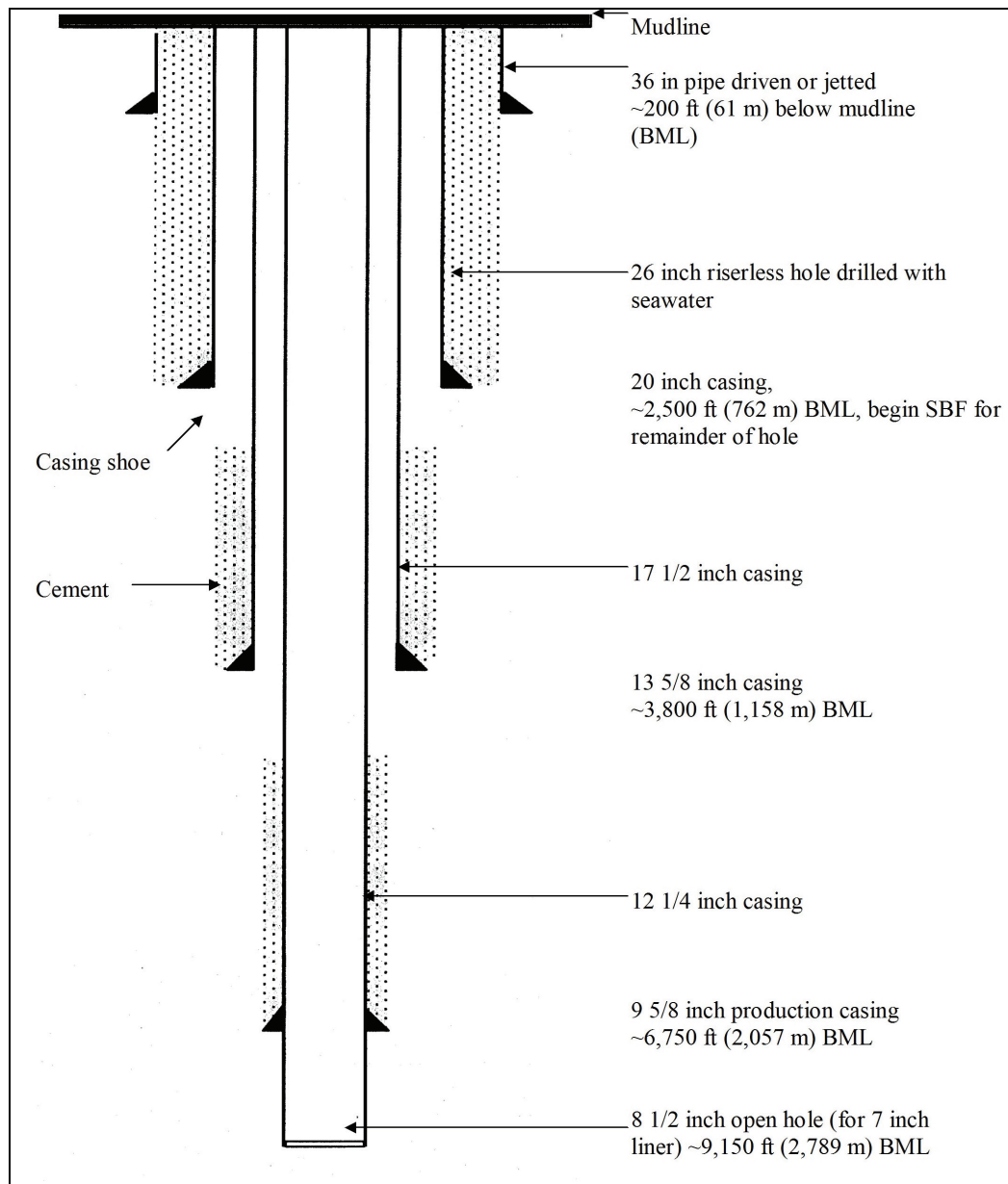


Figure 4-2. Generic Well Schematic.

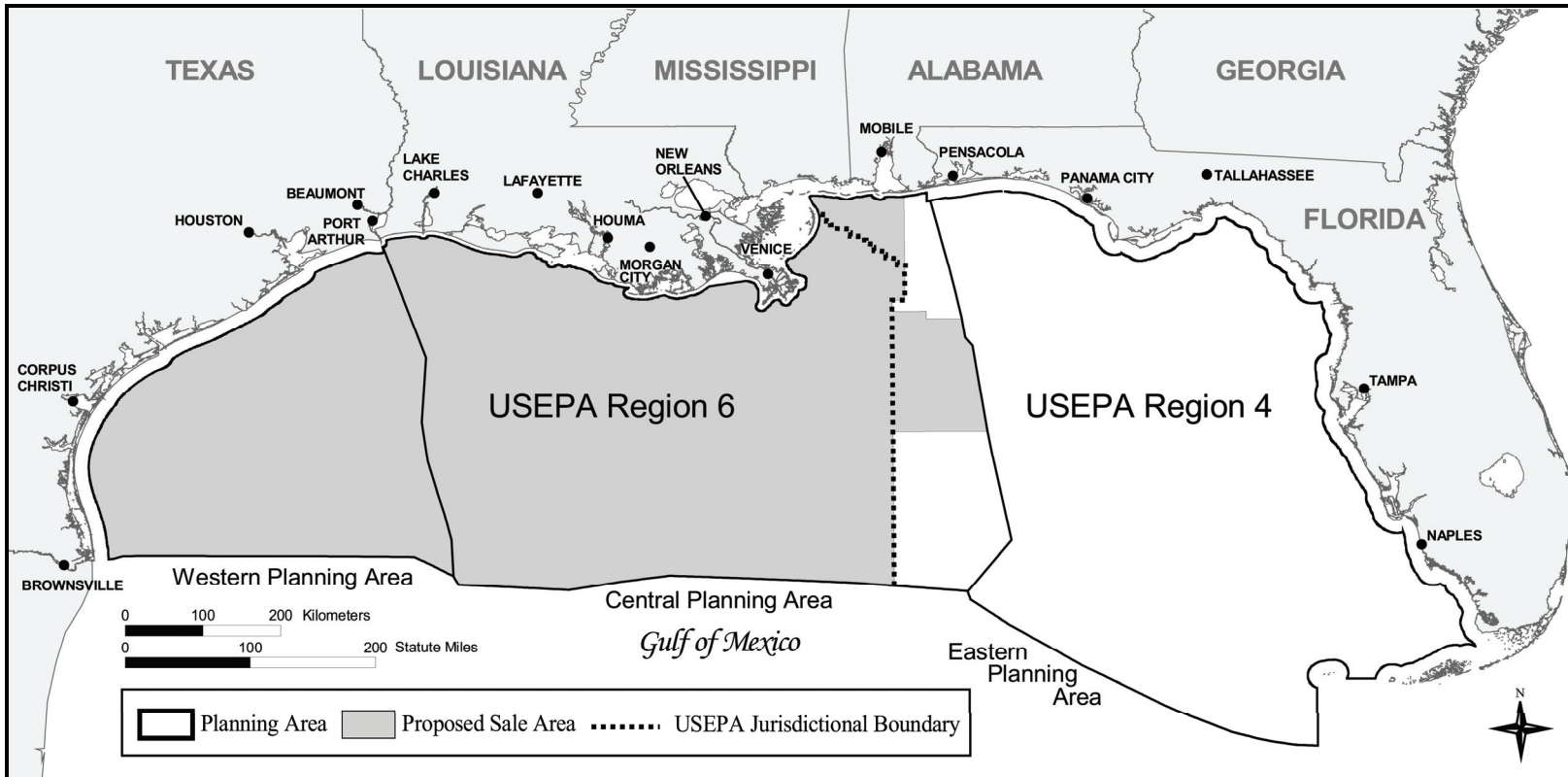


Figure 4-3. USEPA Regions 4 and 6 Jurisdictional Boundaries.

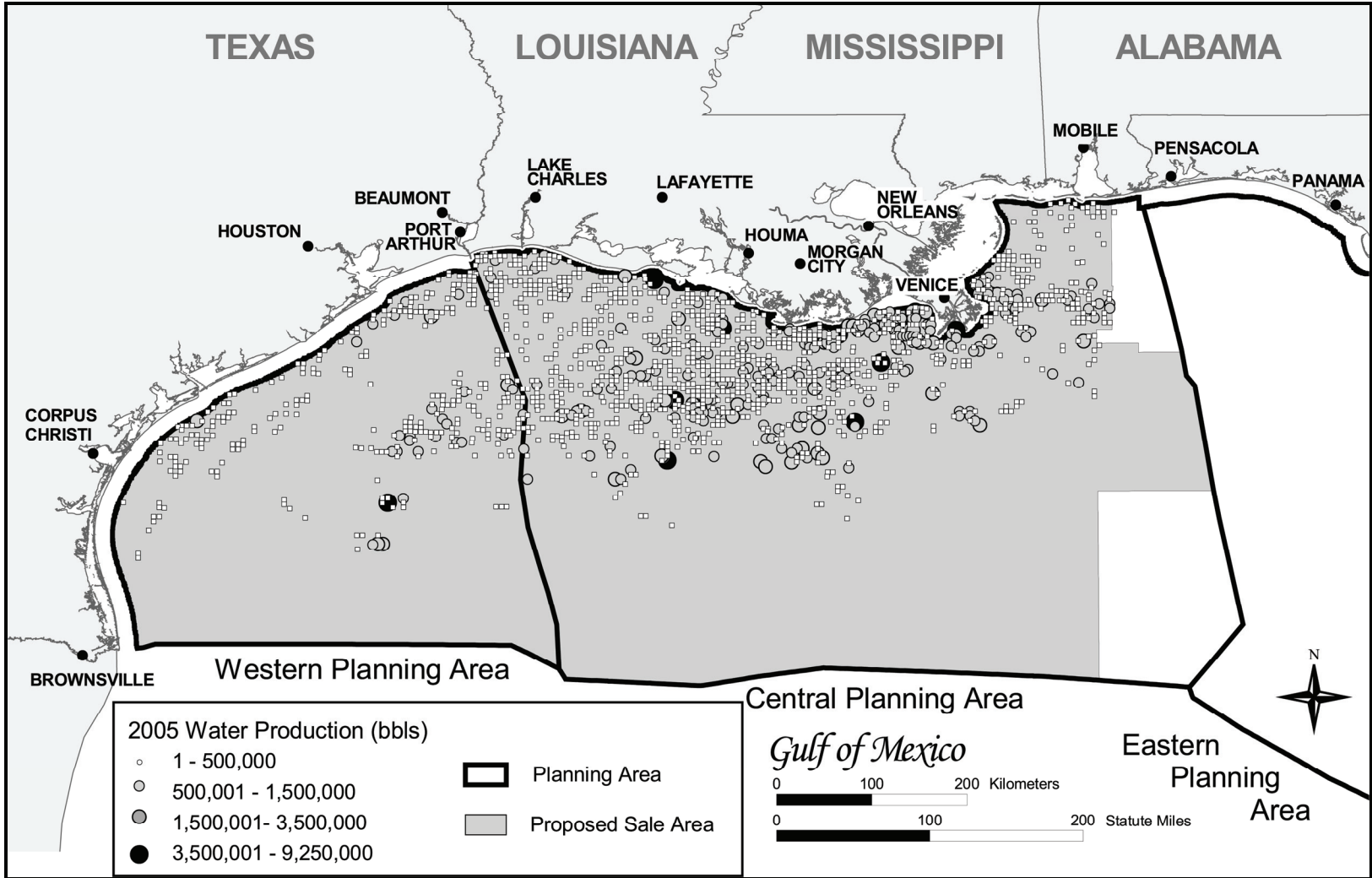


Figure 4-4. Produced Water Extracted in the Gulf of Mexico in 2005.

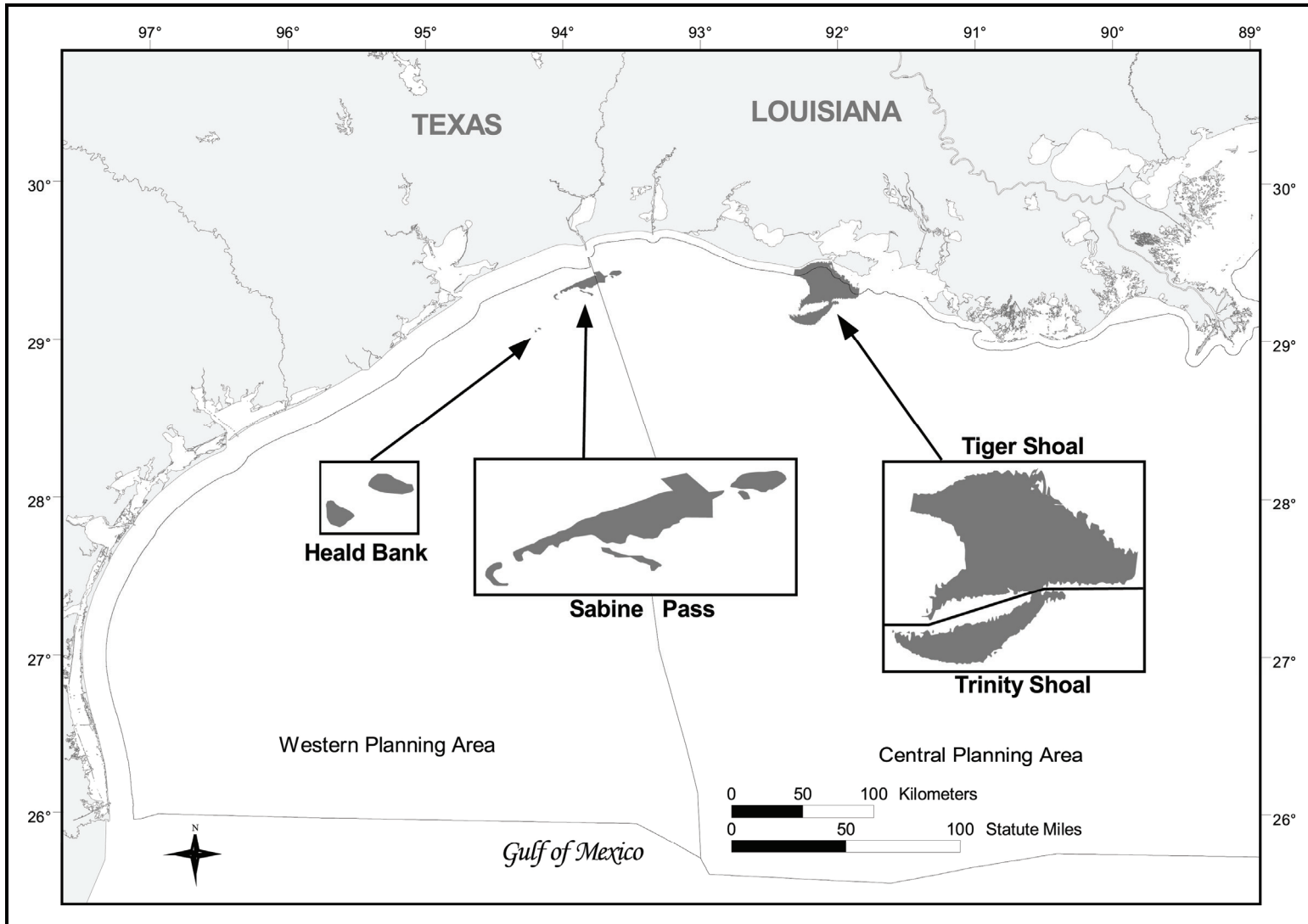


Figure 4-5. Location of Sand Bank/Shoal Study Areas.

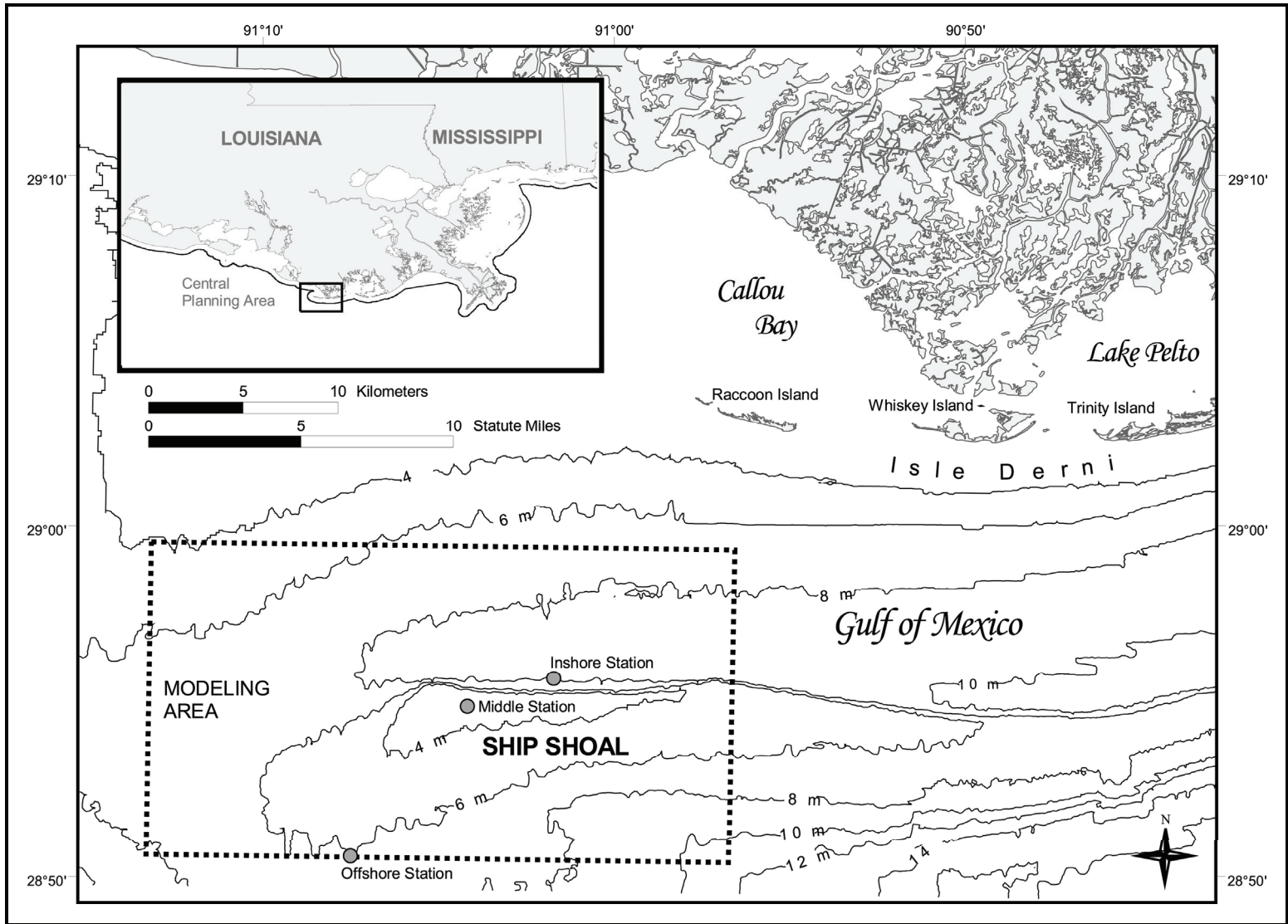


Figure 4-6. Location of Ship Shoal.

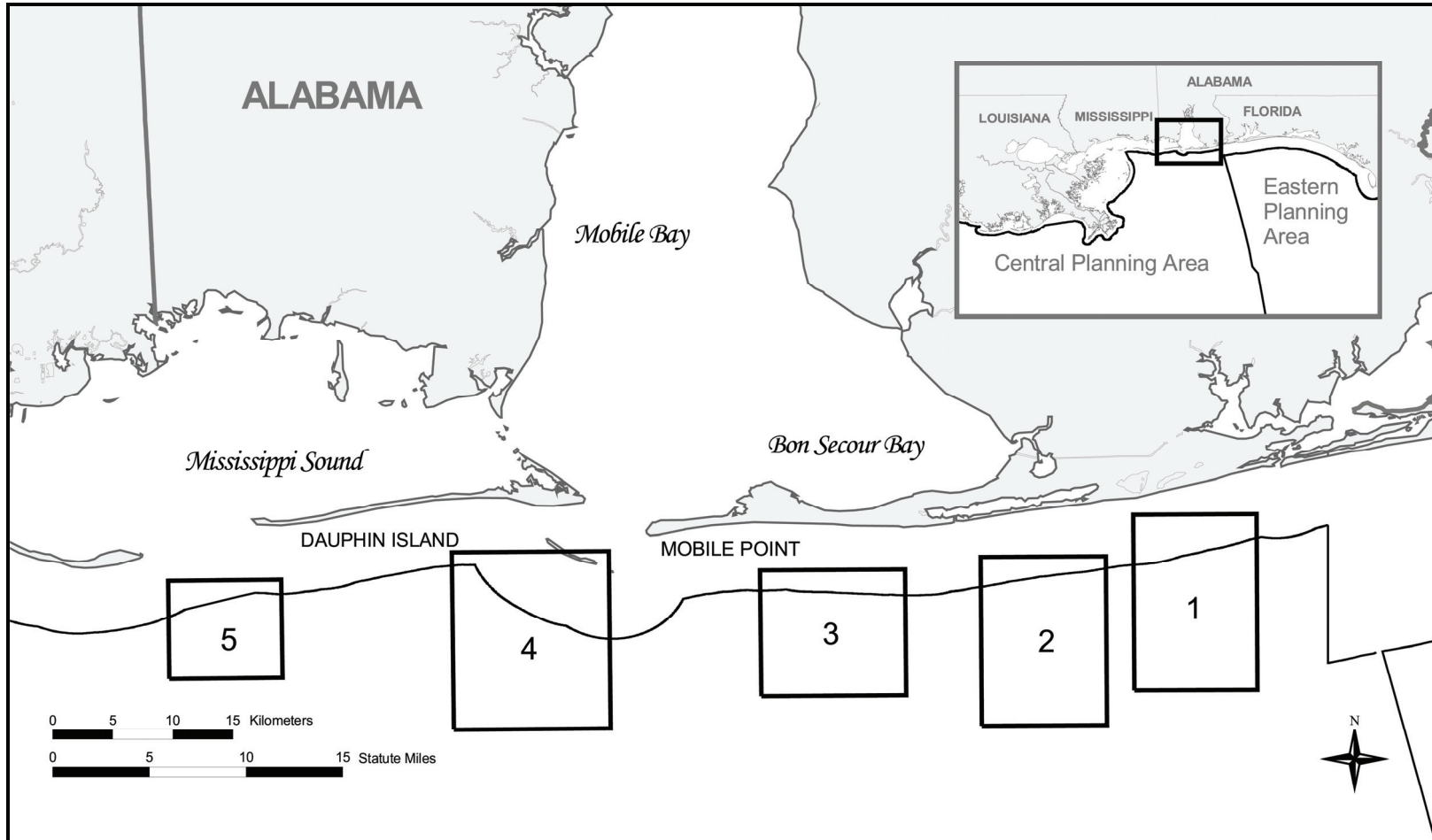


Figure 4-7. Location of Identified Sand Resource Sites Offshore Alabama.



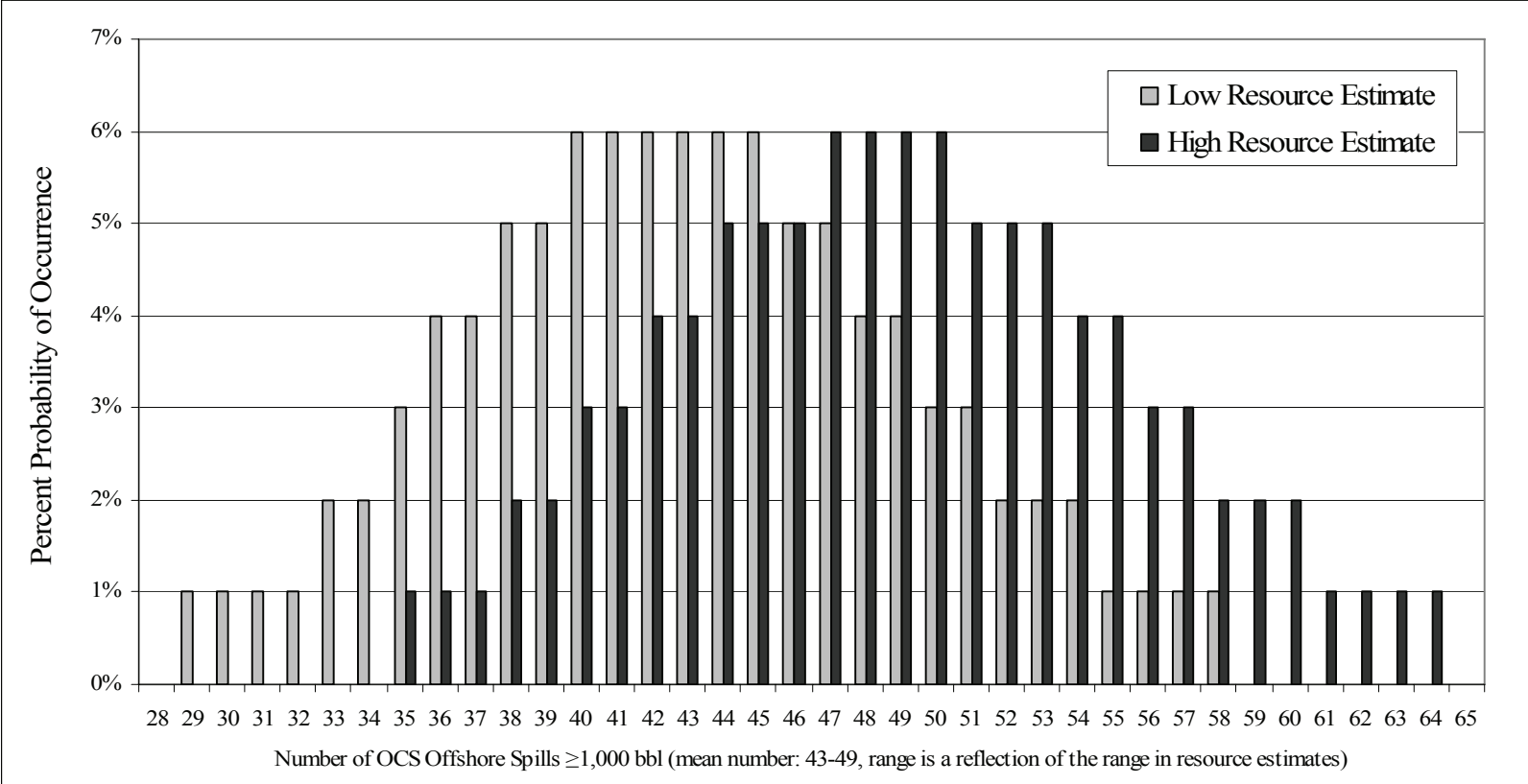


Figure 4-8. Probability of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of OCS Program Operations Gulfwide during the Years 2007-2046.

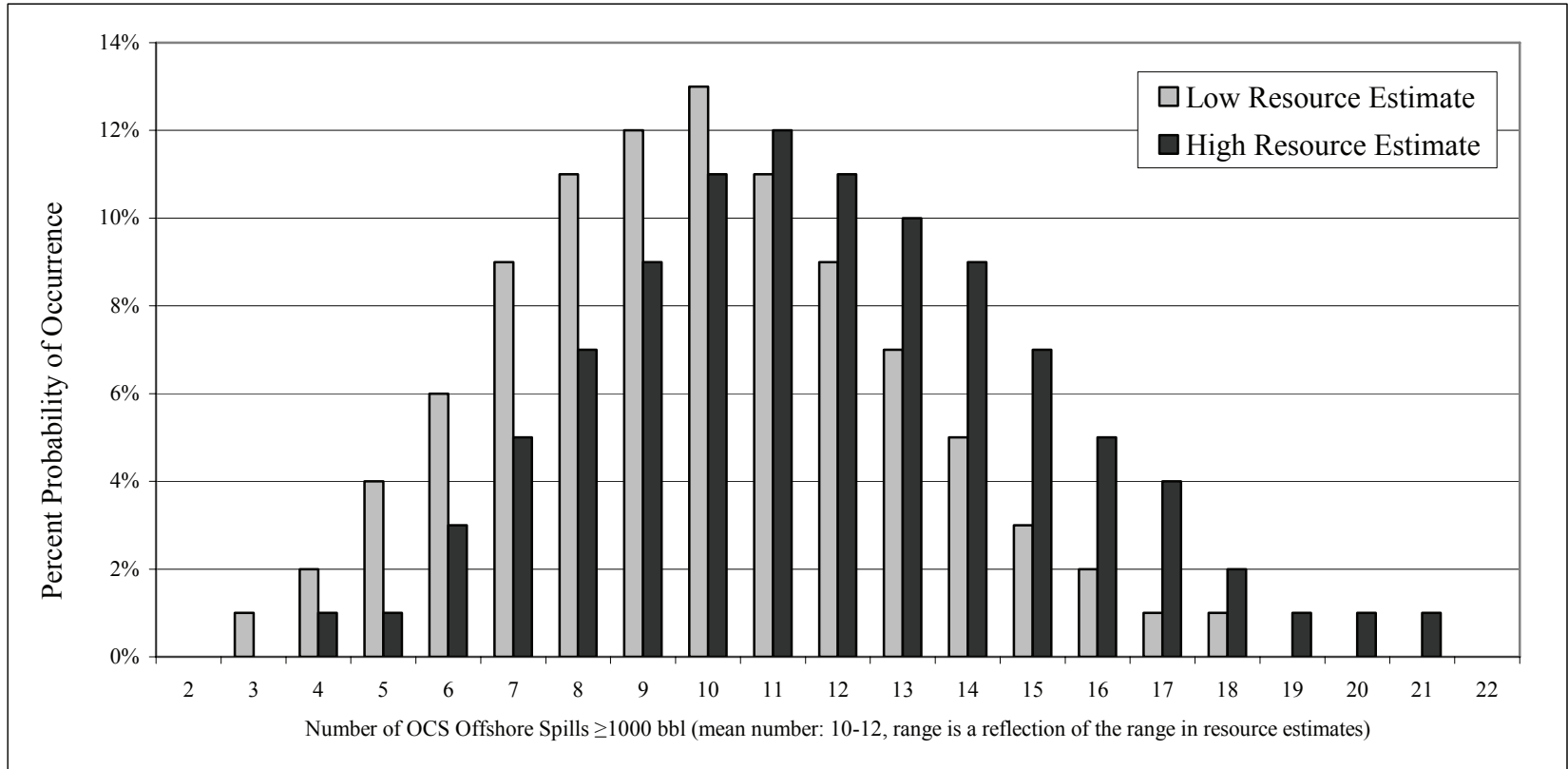


Figure 4-9. Probability of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of OCS Program Operations in the Western Planning Area during the Years 2007-2046.

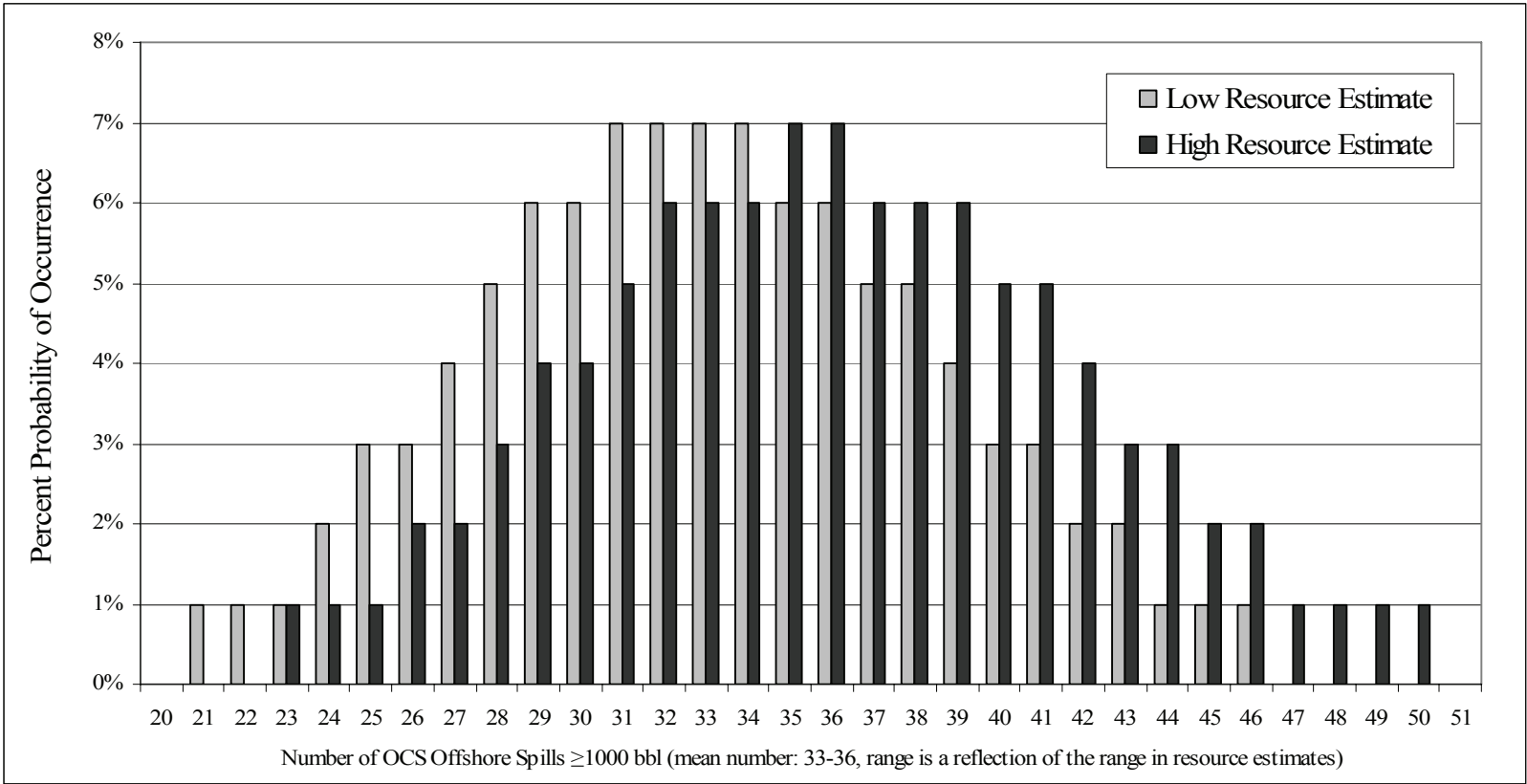


Figure 4-10. Probability of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of OCS Program Operations in the Central Planning Area during the Years 2007-2046.

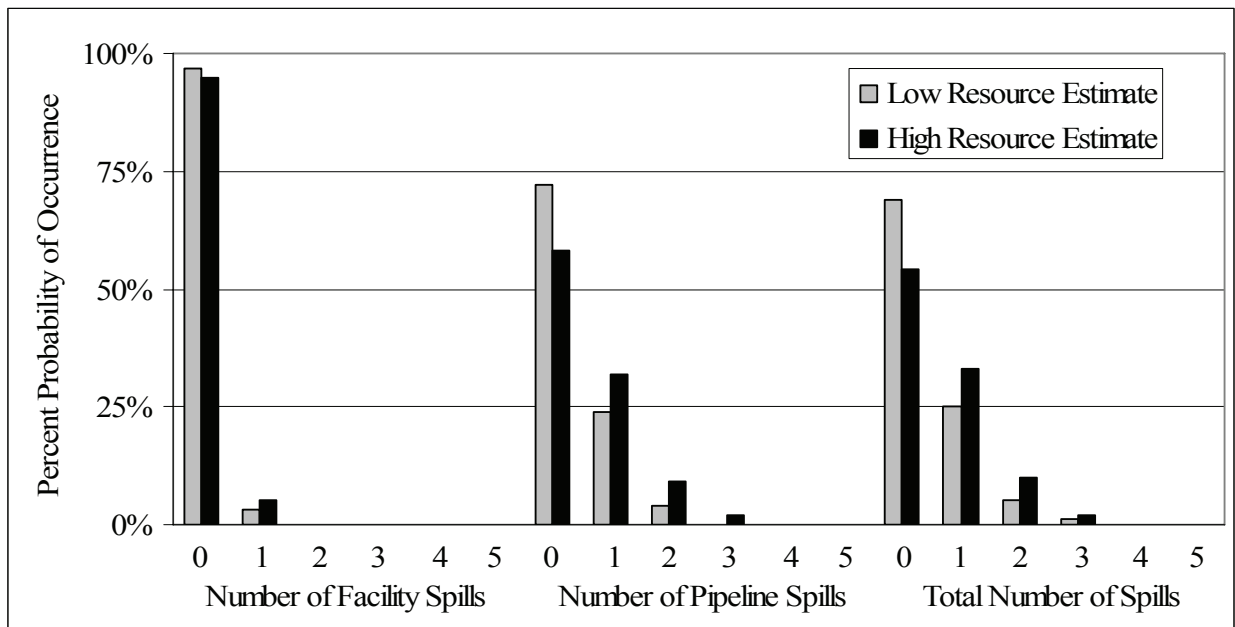


Figure 4-11. Probability (percent chance) of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of Either Facility or Pipeline Operations Related to a WPA Proposed Action.

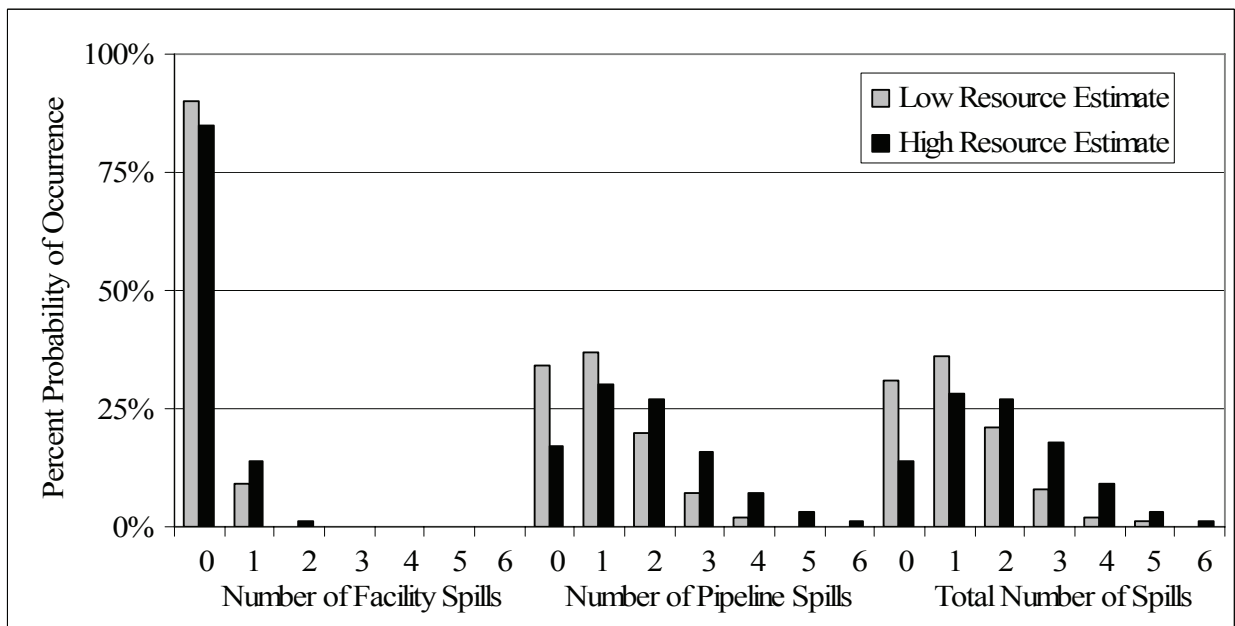


Figure 4-12. Probability (percent chance) of a Particular Number of Offshore Spills  $\geq 1,000$  bbl Occurring as a Result of Either Facility or Pipeline Operations Related to a CPA Proposed Action.

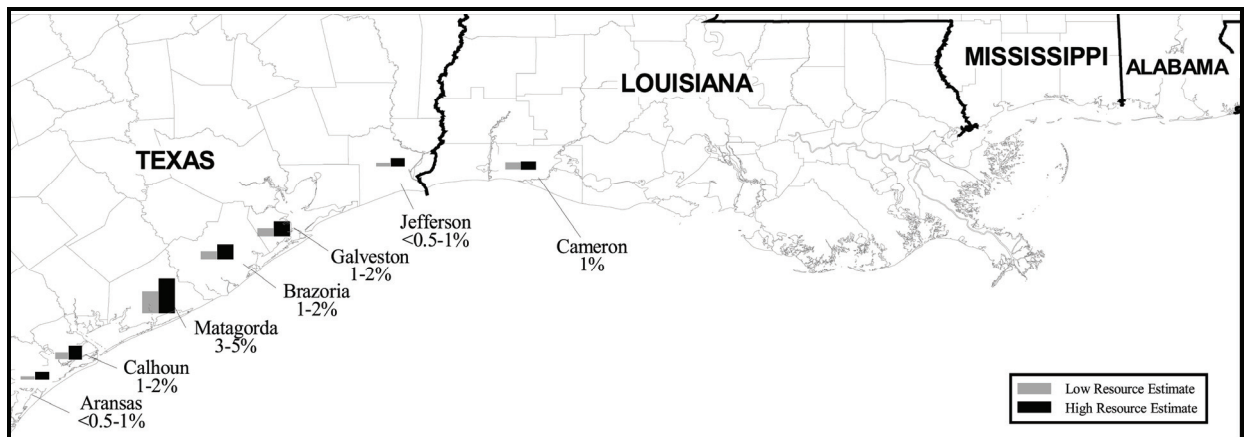


Figure 4-13. Probabilities of Oil Spills (>1,000 bbl) Occurring and Contacting within 10 Days the Shoreline (counties and parishes) as a Result of a Proposed Action in the Western Planning Area (only counties and parishes with greater than a 0.5% risk of contact within 10 days are shown).

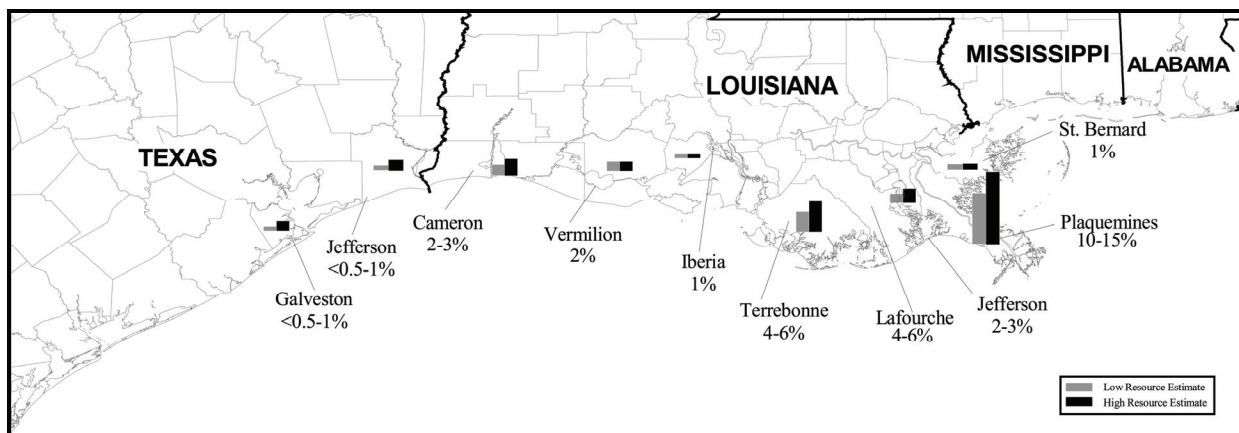


Figure 4-14. Probabilities of Oil Spills (≥1,000 bbl) Occurring and Contacting within 10 Days the Shoreline (counties and parishes) as a Result of a Proposed Action in the Central Planning Area (only counties and parishes with greater than a 0.5% risk of contact within 10 days are shown).

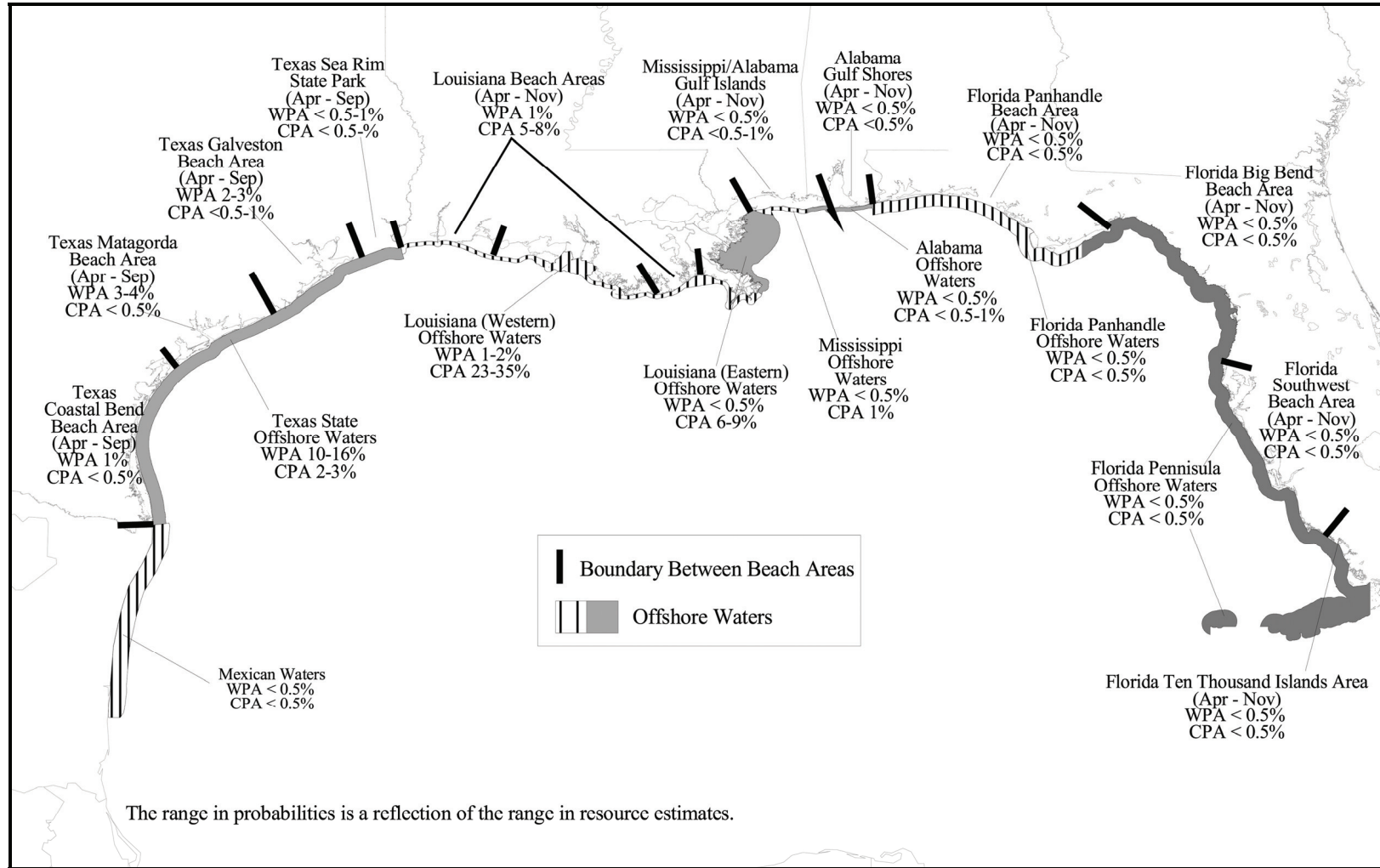


Figure 4-15. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days State Offshore Waters or Recreational Beaches as a Result of a WPA or CPA Proposed Action.

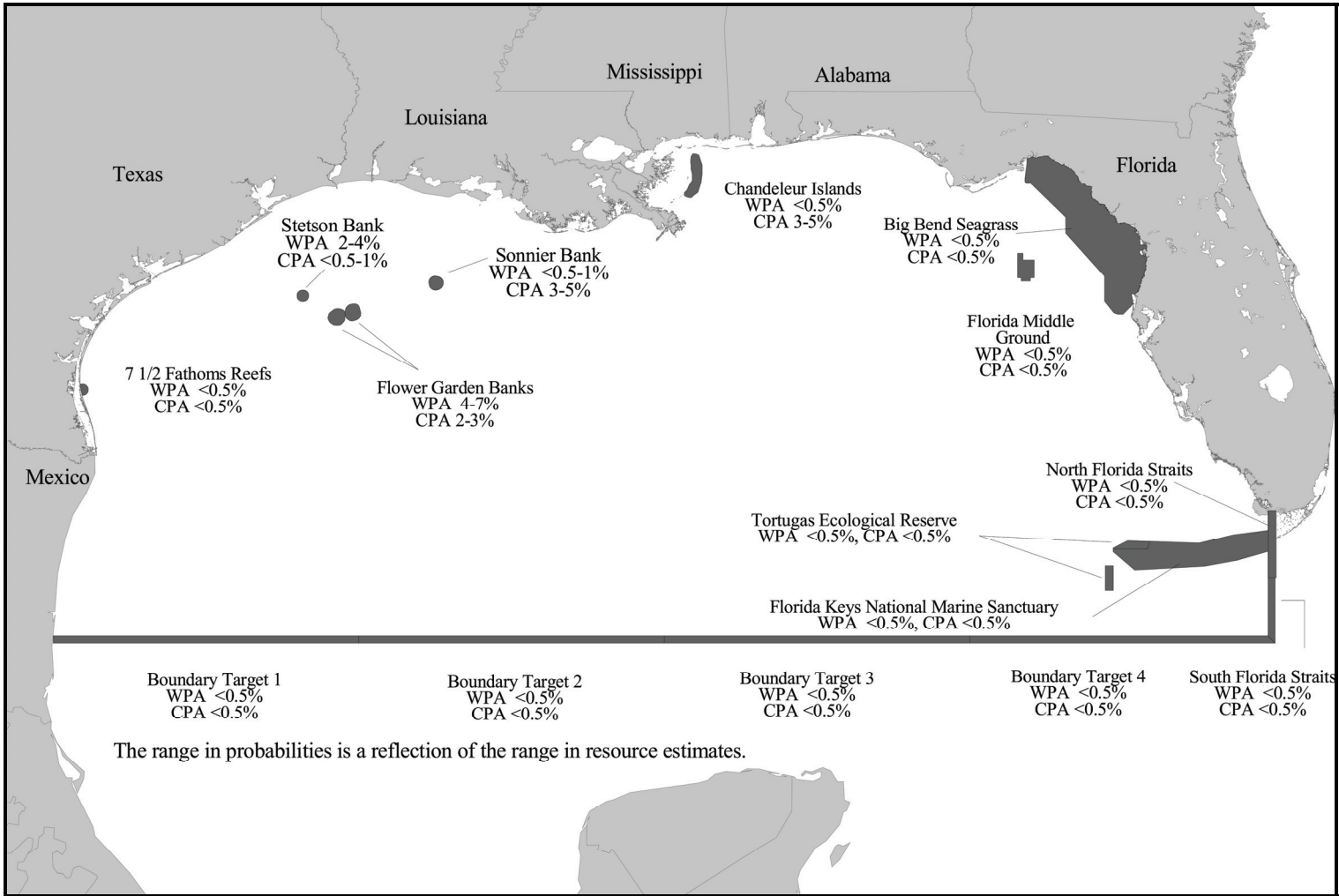


Figure 4-16. Probabilities of Oil Spills (≥1,000 bbl) Occurring and Contacting within 10 Days the Surface Waters Overlying and Surrounding Offshore Environmental Features or Boundary Targets as a Result of a WPA or CPA Proposed Action.

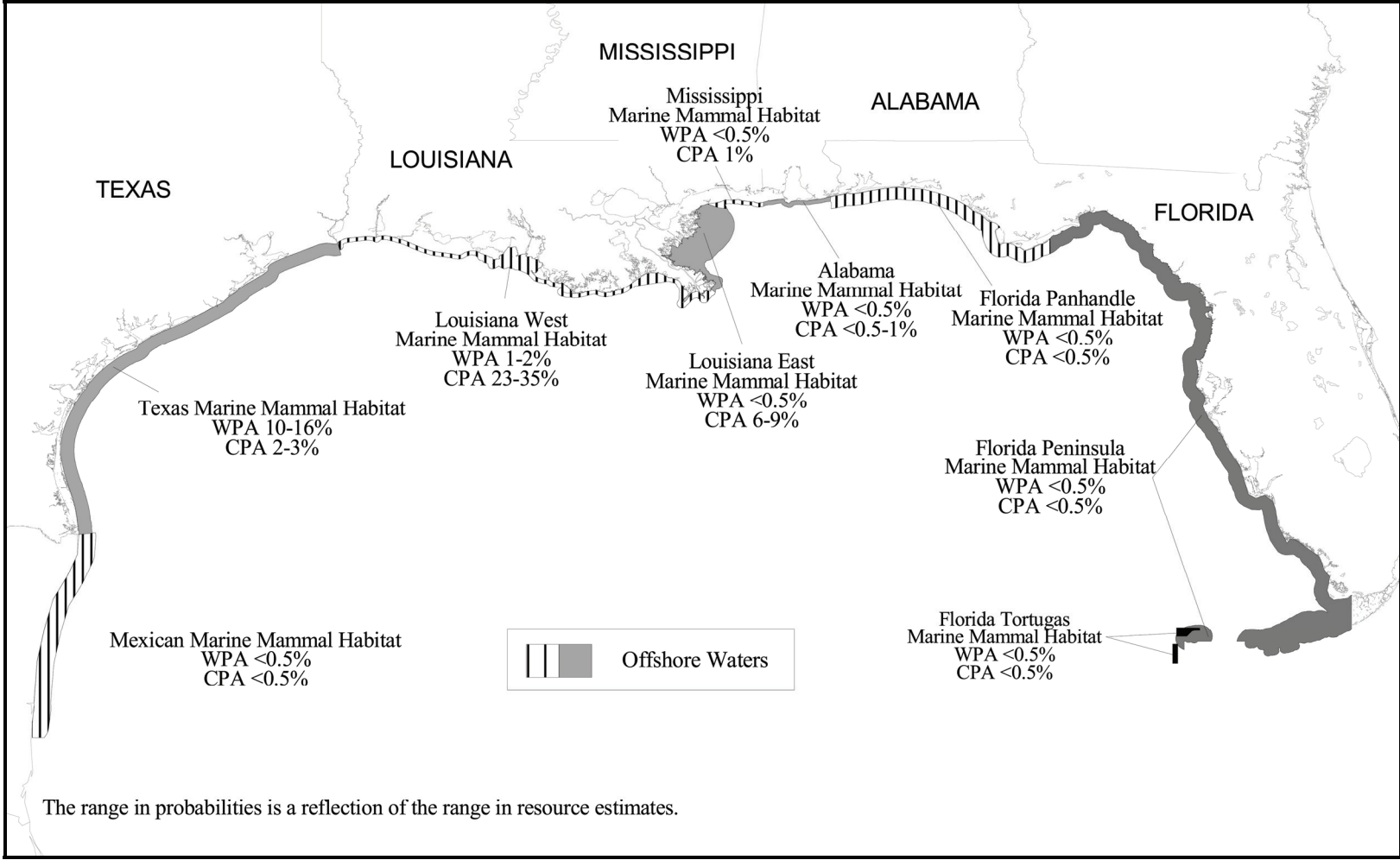


Figure 4-17. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Marine Mammal Habitats as a Result of a WPA or CPA Proposed Action.



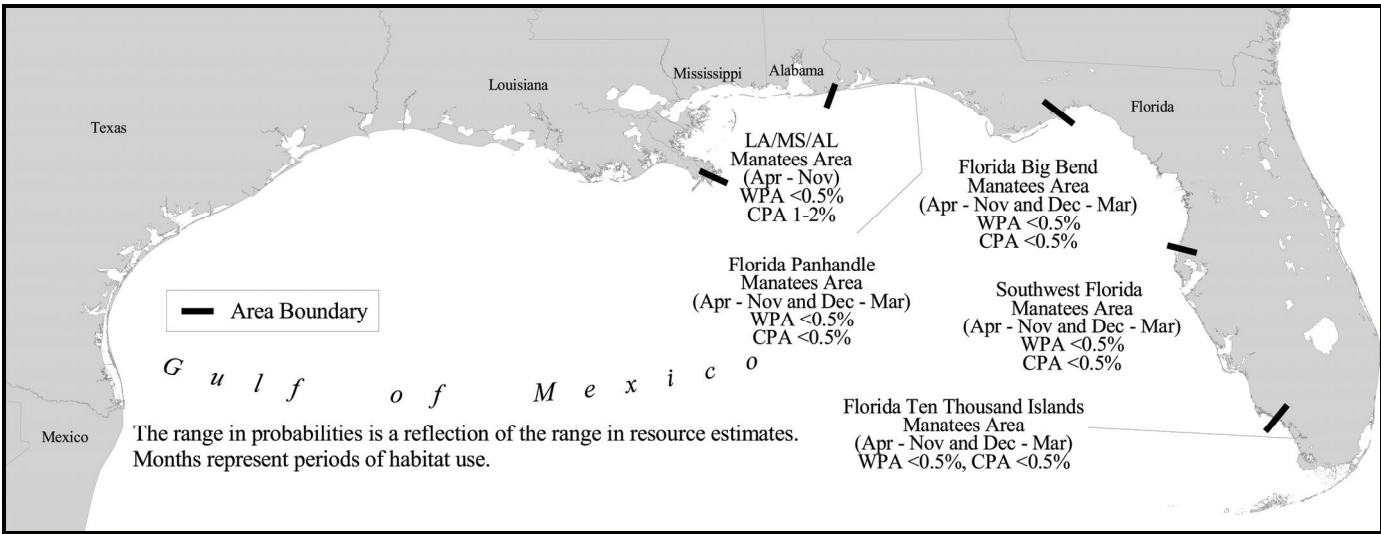


Figure 4-18. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Manatee Habitats as a Result of a WPA or CPA Proposed Action.

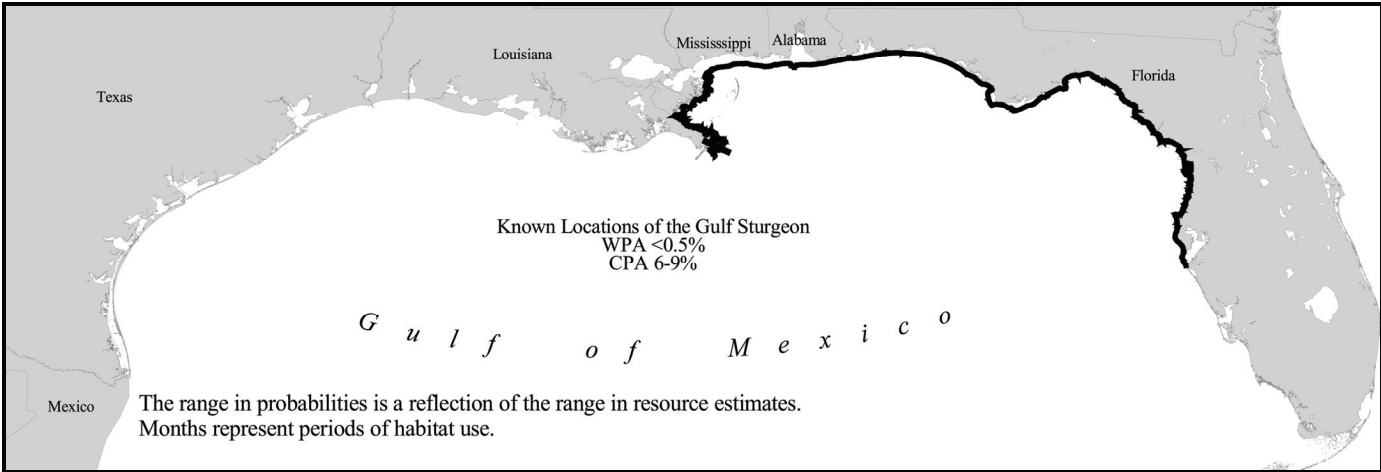


Figure 4-19. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Known Locations of Gulf Sturgeon as a Result of a WPA or CPA Proposed Action.

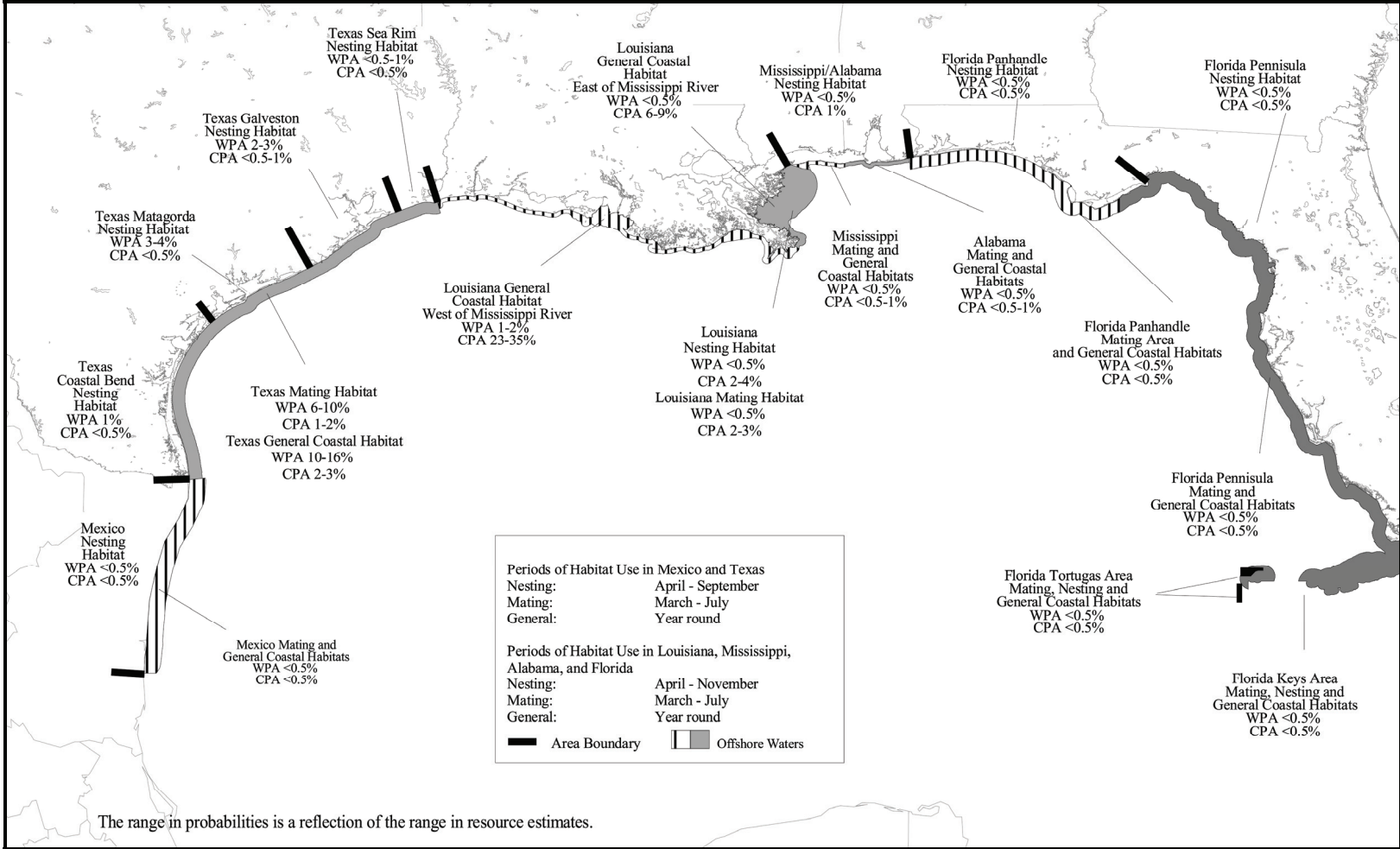


Figure 4-20. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Sea Turtle Habitats as a Result of a WPA or CPA Proposed Action.

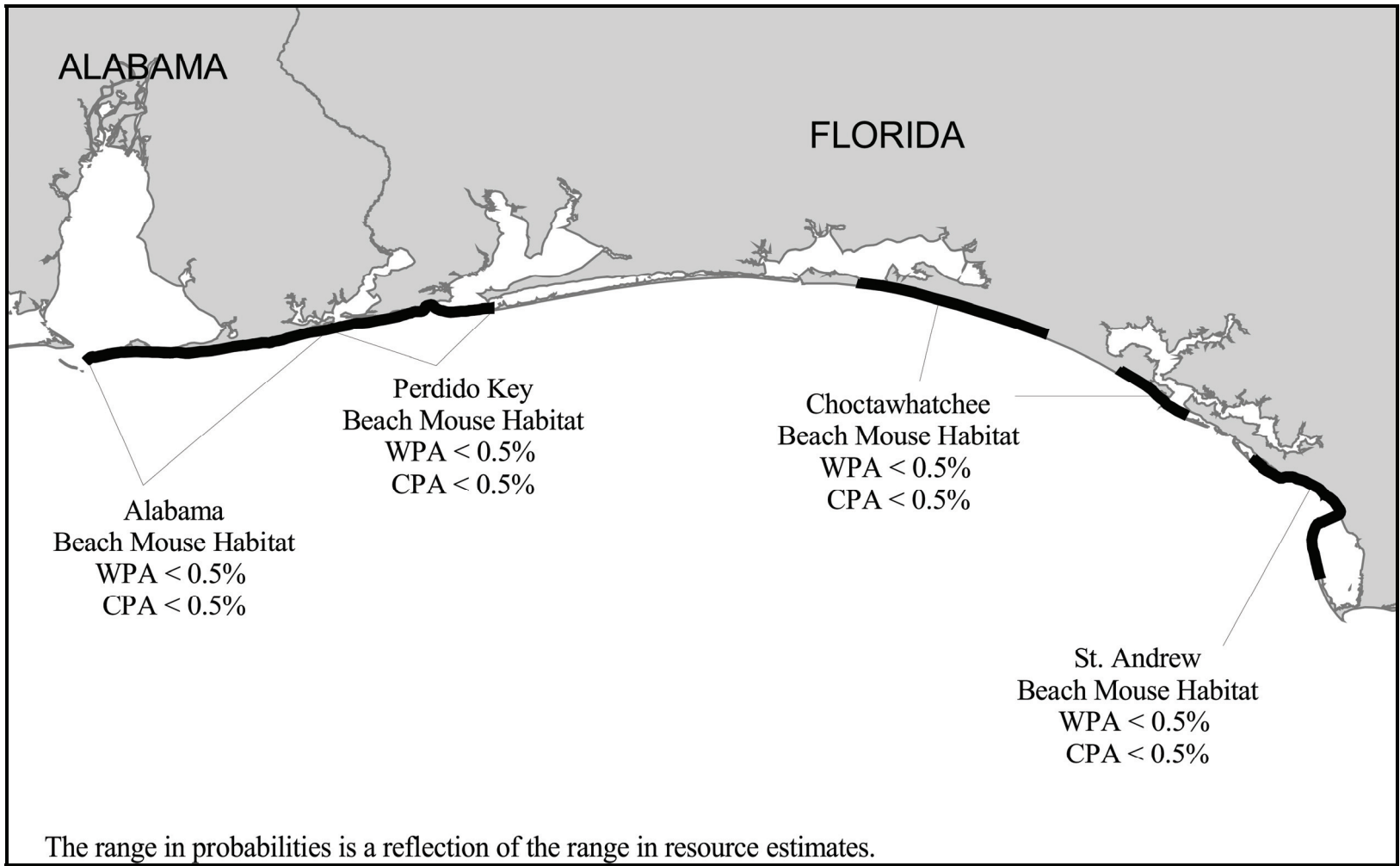


Figure 4-21. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Endangered Beach Mice Habitats as a Result of a WPA or CPA Proposed Action.

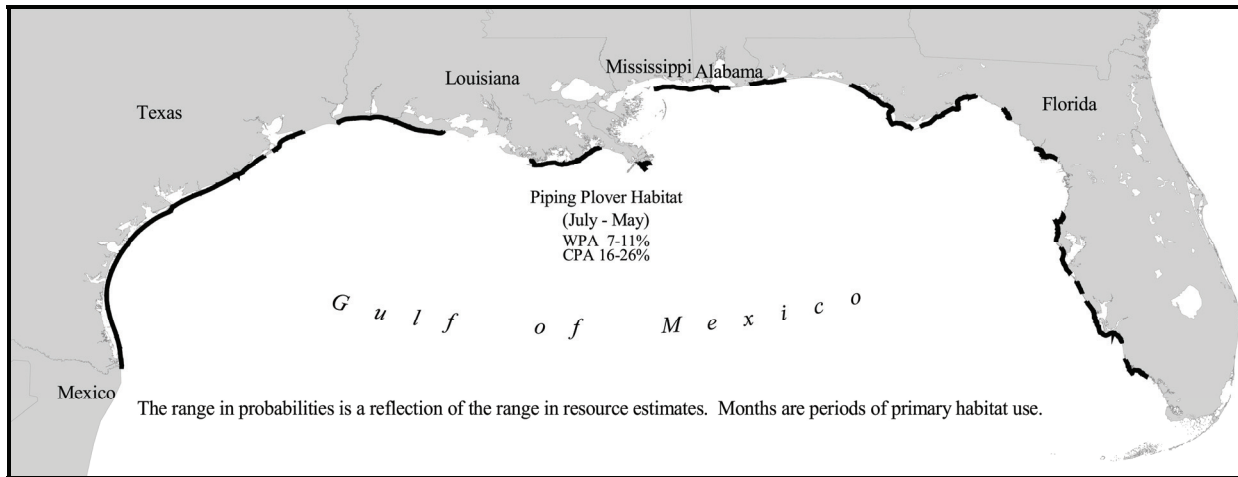


Figure 4-22. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Piping Plover Habitat as a Result of a WPA or CPA Proposed Action.

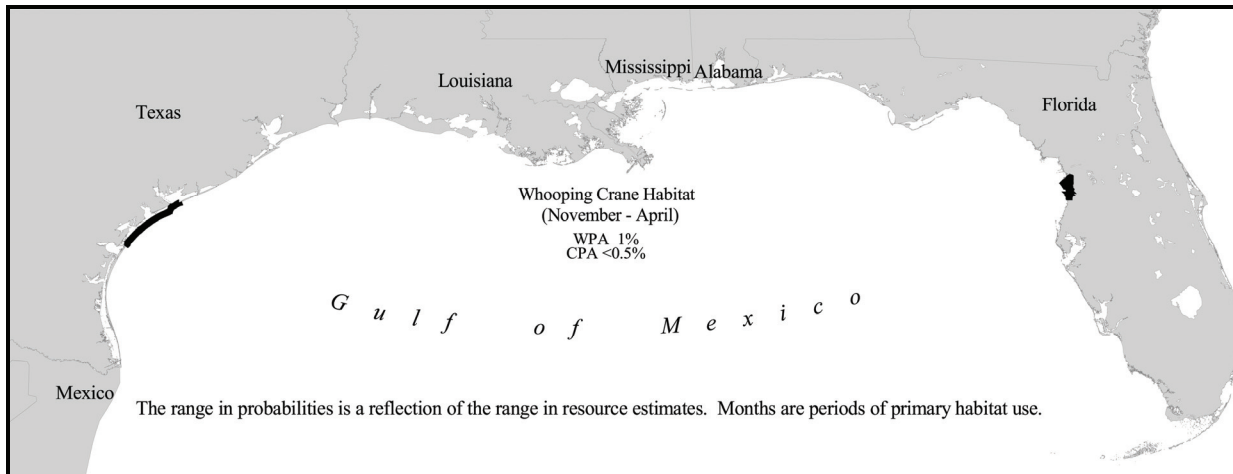


Figure 4-23. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Whooping Crane Habitat as a Result of a WPA or CPA Proposed Action.

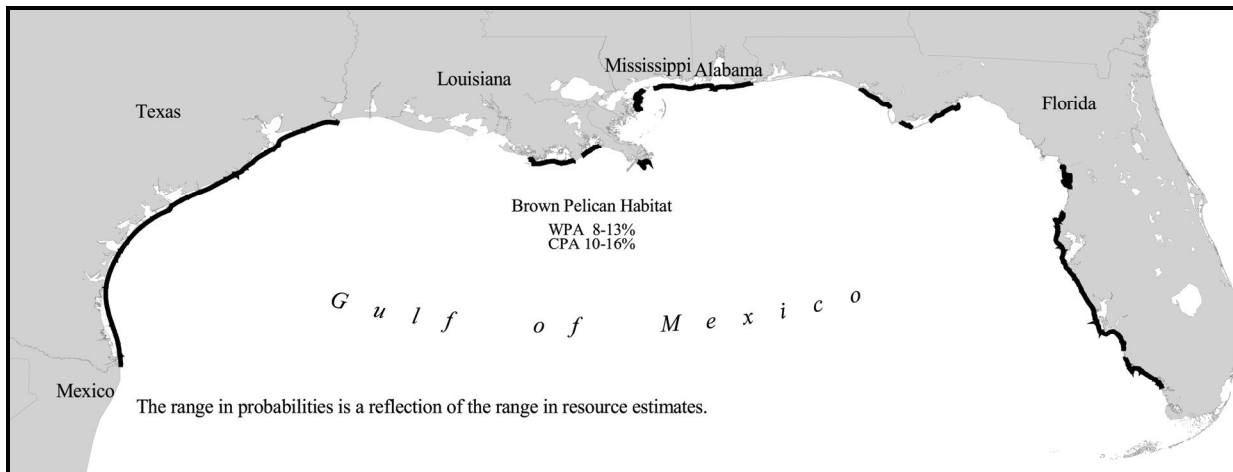


Figure 4-24. Probabilities of Oil Spills ( $> 1,000$  bbl) Occurring and Contacting within 10 Days Brown Pelican Habitat as a Result of a WPA or CPA Proposed Action.

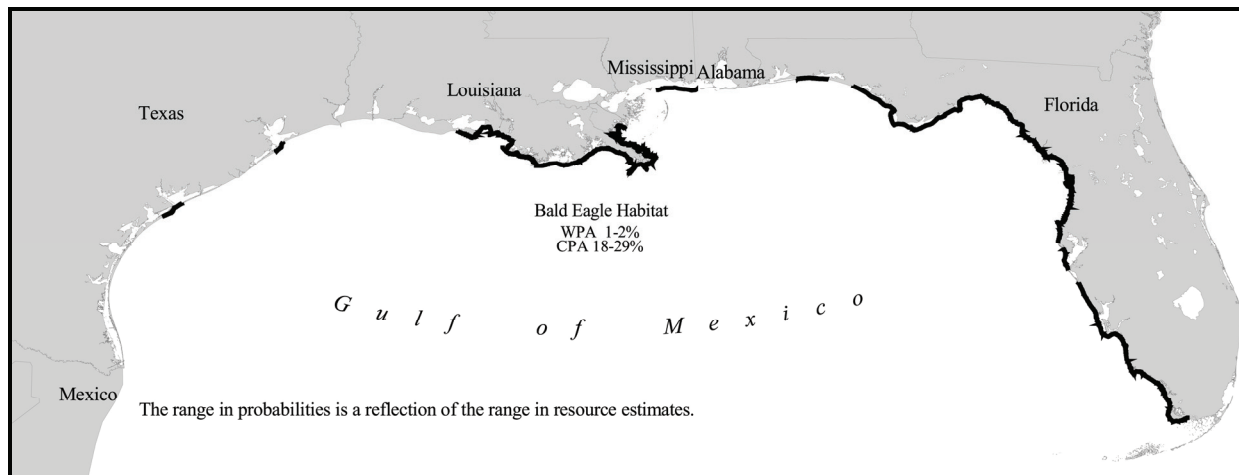


Figure 4-25. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Bald Eagle Habitat as a Result of a WPA or CPA Proposed Action.

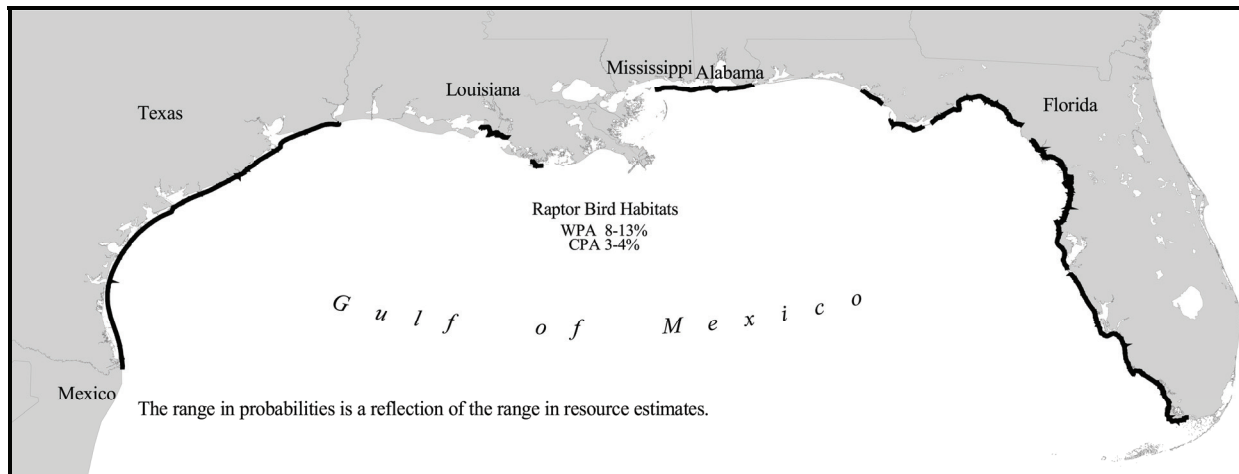


Figure 4-26. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Raptor Bird Habitats as a Result of a WPA or CPA Proposed Action.

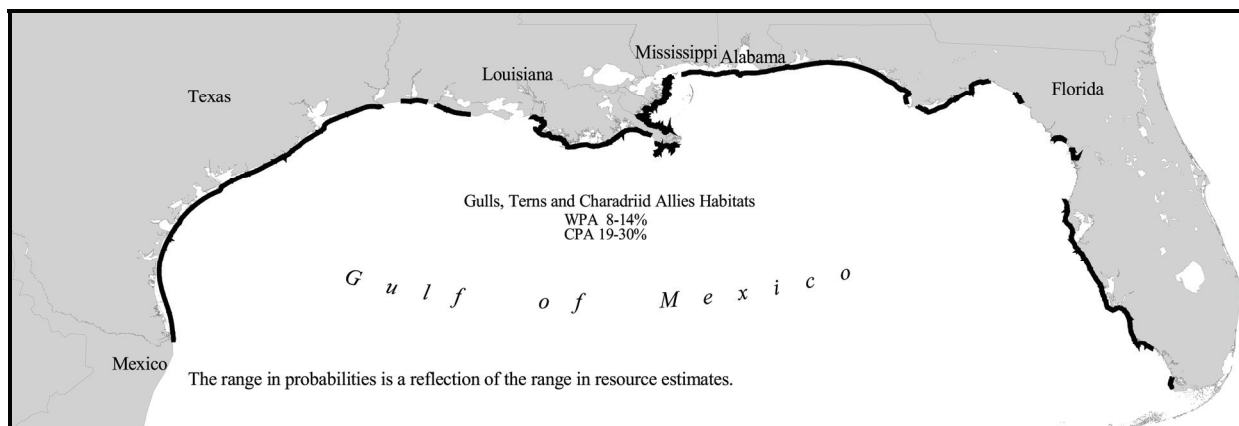


Figure 4-27. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Gull, Terns and Charadriid Allies Habitats as a Result of a WPA or CPA Proposed Action.

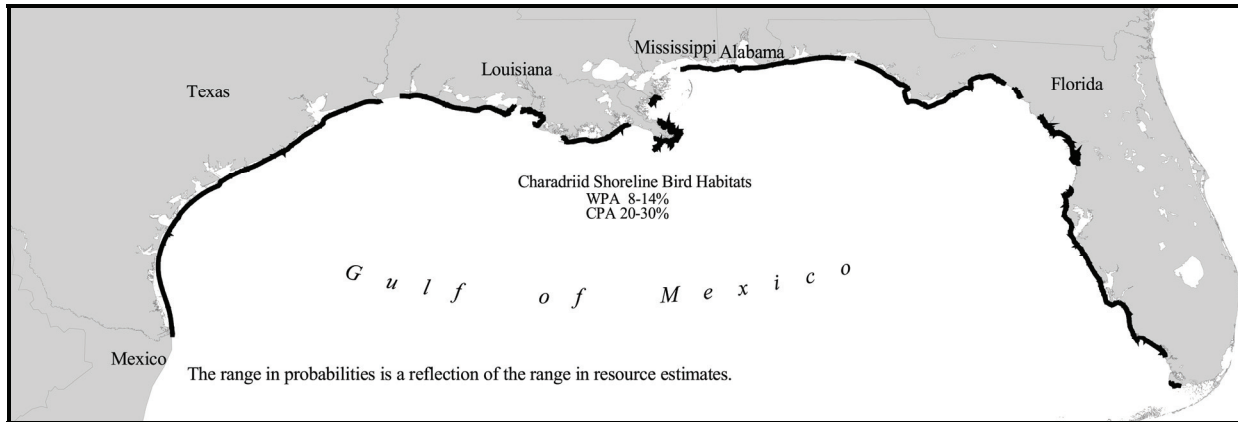


Figure 4-28. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Charadriid Shoreline Bird Habitats as a Result of a WPA or CPA Proposed Action.

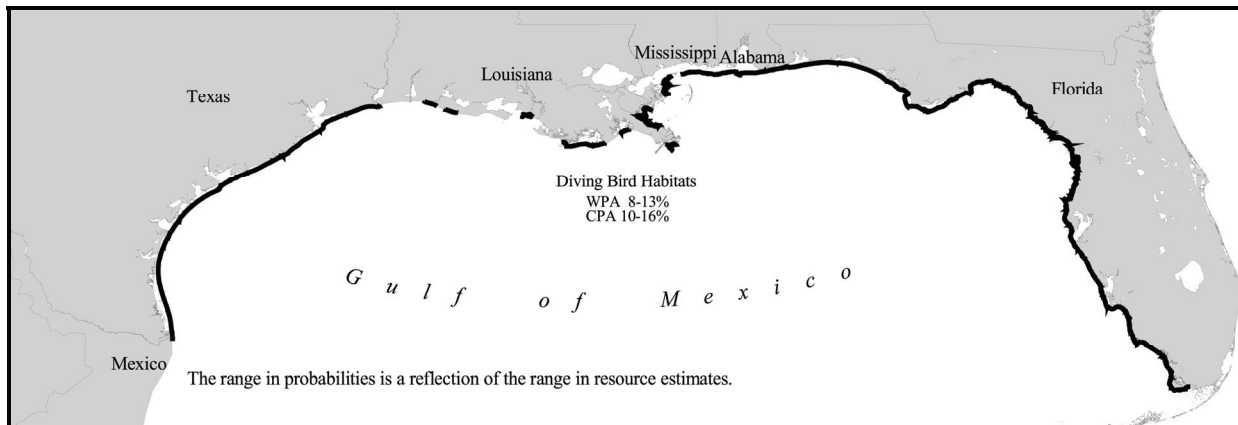


Figure 4-29. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Diving Bird Habitats as a Result of a WPA or CPA Proposed Action.

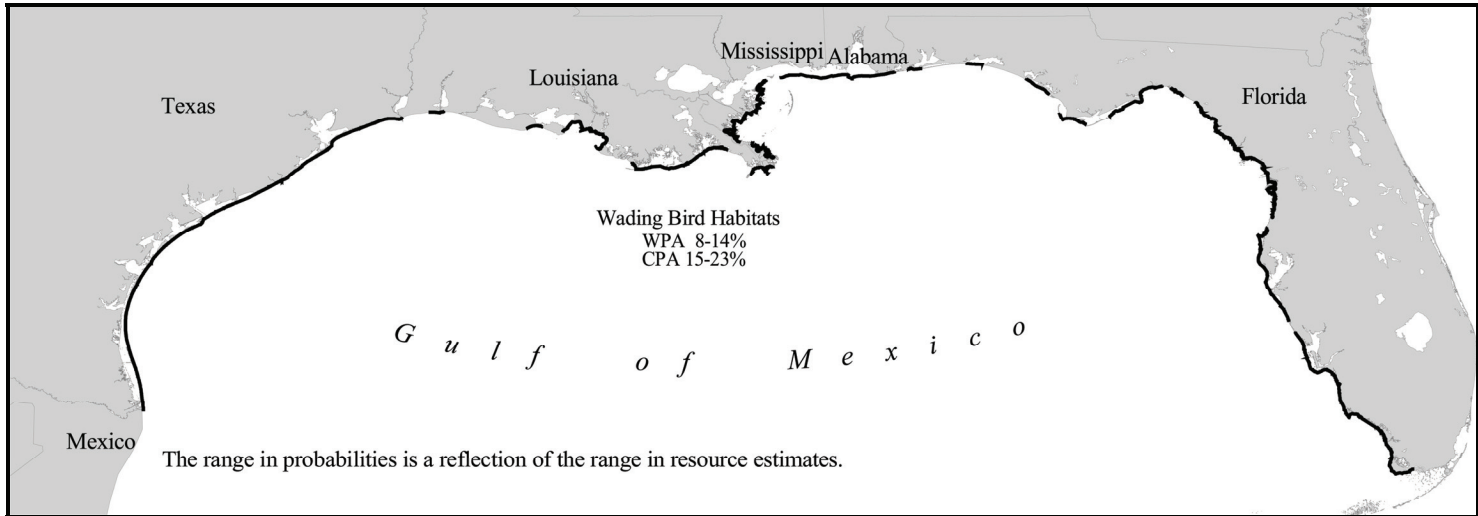


Figure 4-30. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Wading Bird Habitats as a Result of a WPA or CPA Proposed Action.

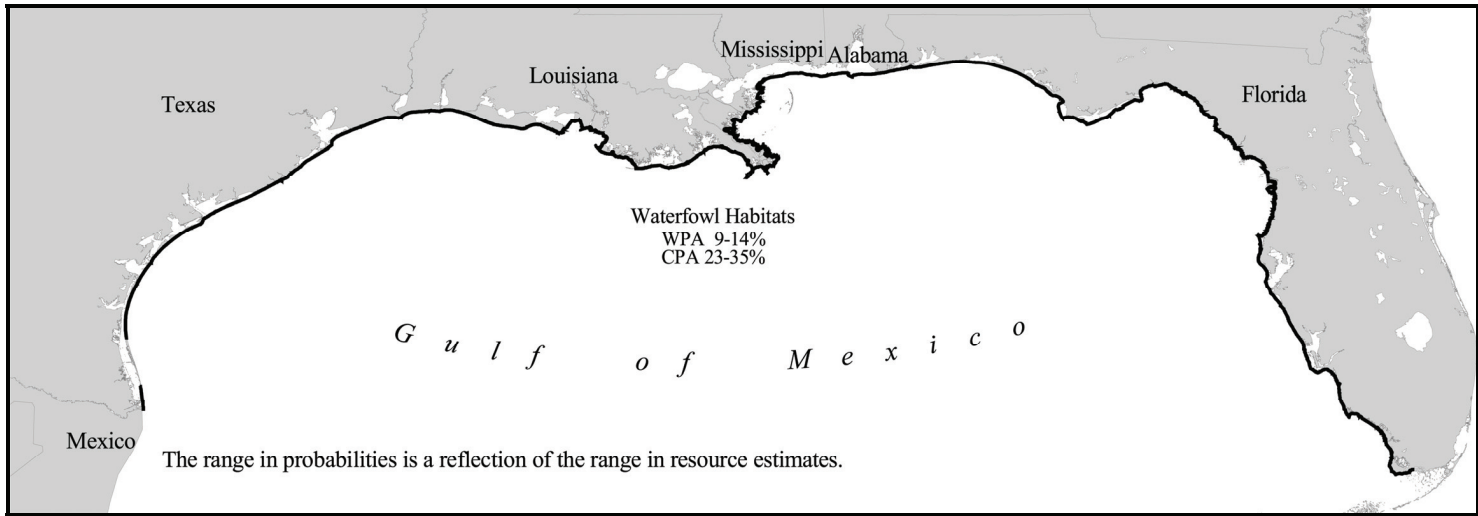


Figure 4-31. Probabilities of Oil Spills ( $\geq 1,000$  bbl) Occurring and Contacting within 10 Days Waterfowl Habitats as a Result of a WPA or CPA Proposed Action.

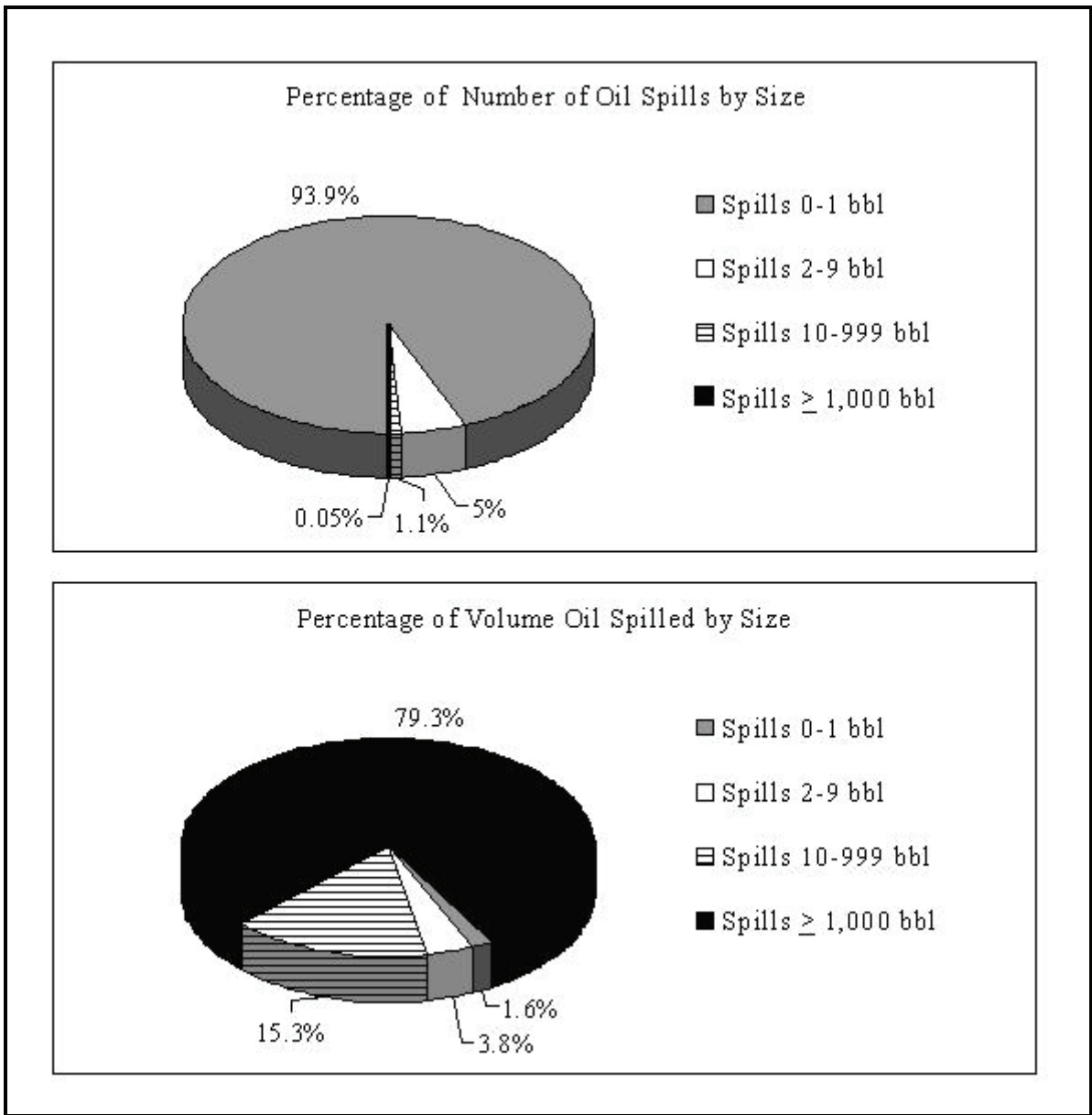


Figure 4-32. Comparison of Spill Frequency and Spill Volume for Past OCS Spills by Size Category (1971-1999 MMS OCS spill database (Anderson and LaBelle, 2000)).



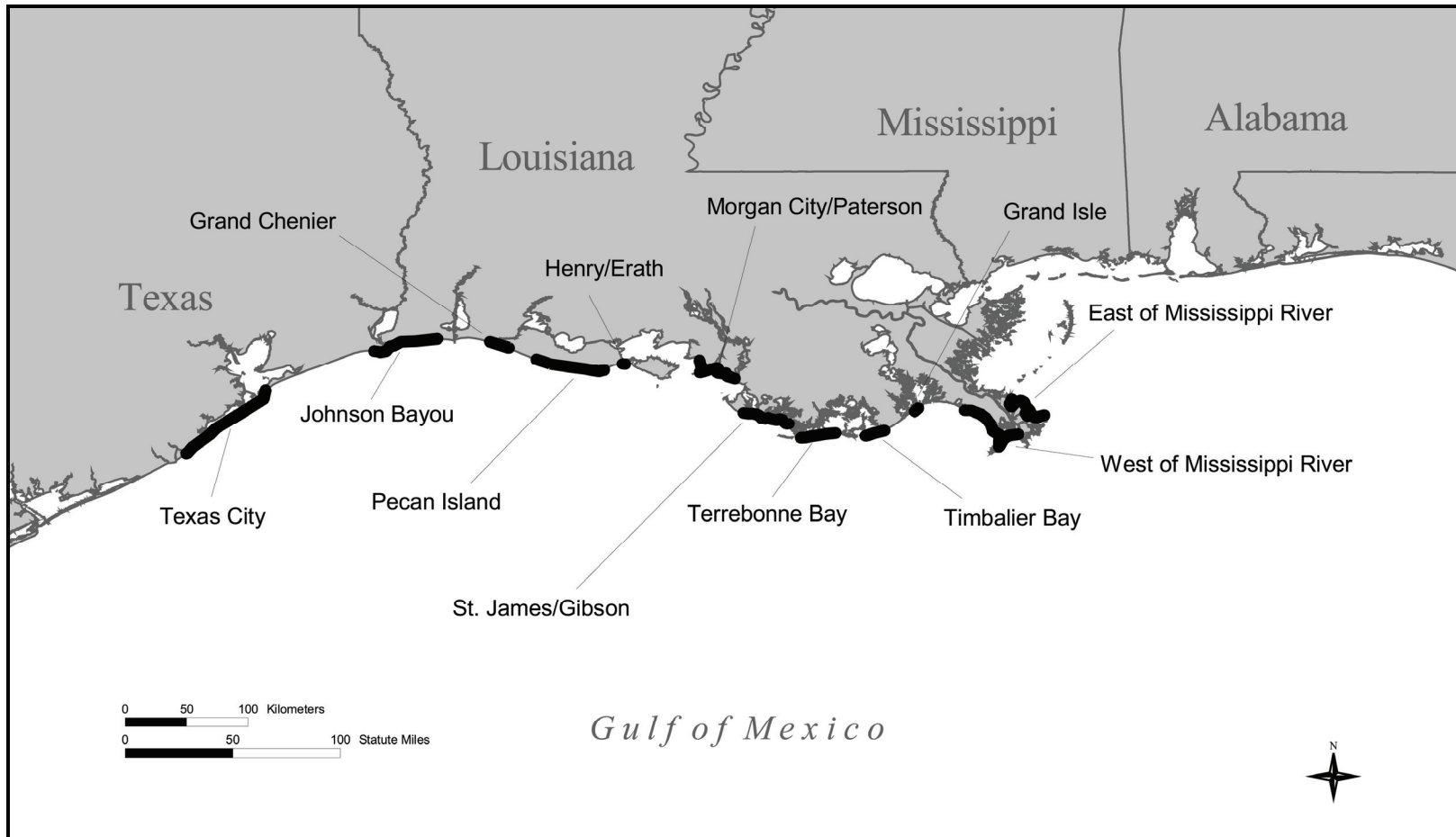


Figure 4-33. Major Oil Pipeline Landfall Areas Developed for OSRA.

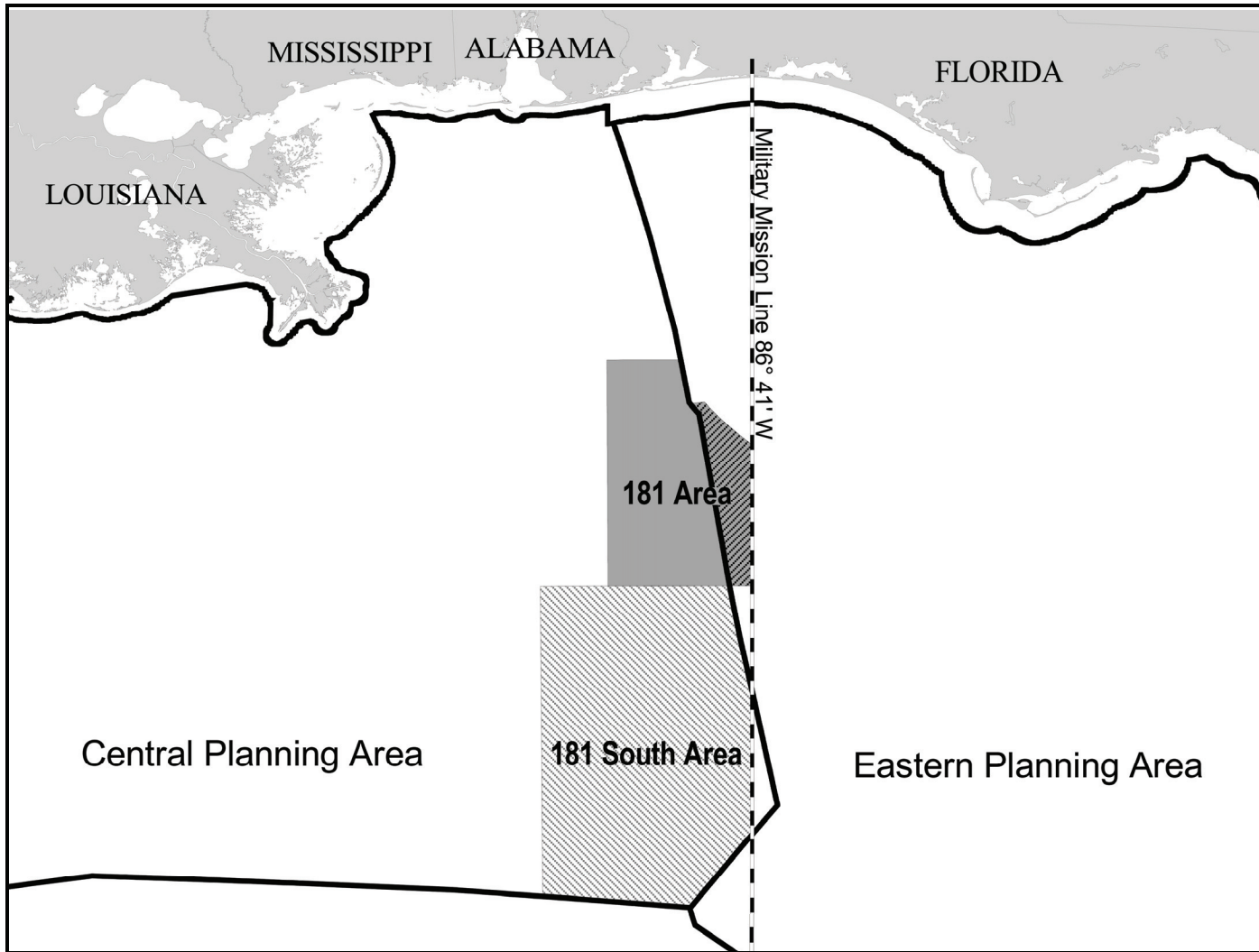


Figure 5-1. Areas Defined by the Gulf of Mexico Energy Security Act of 2006.

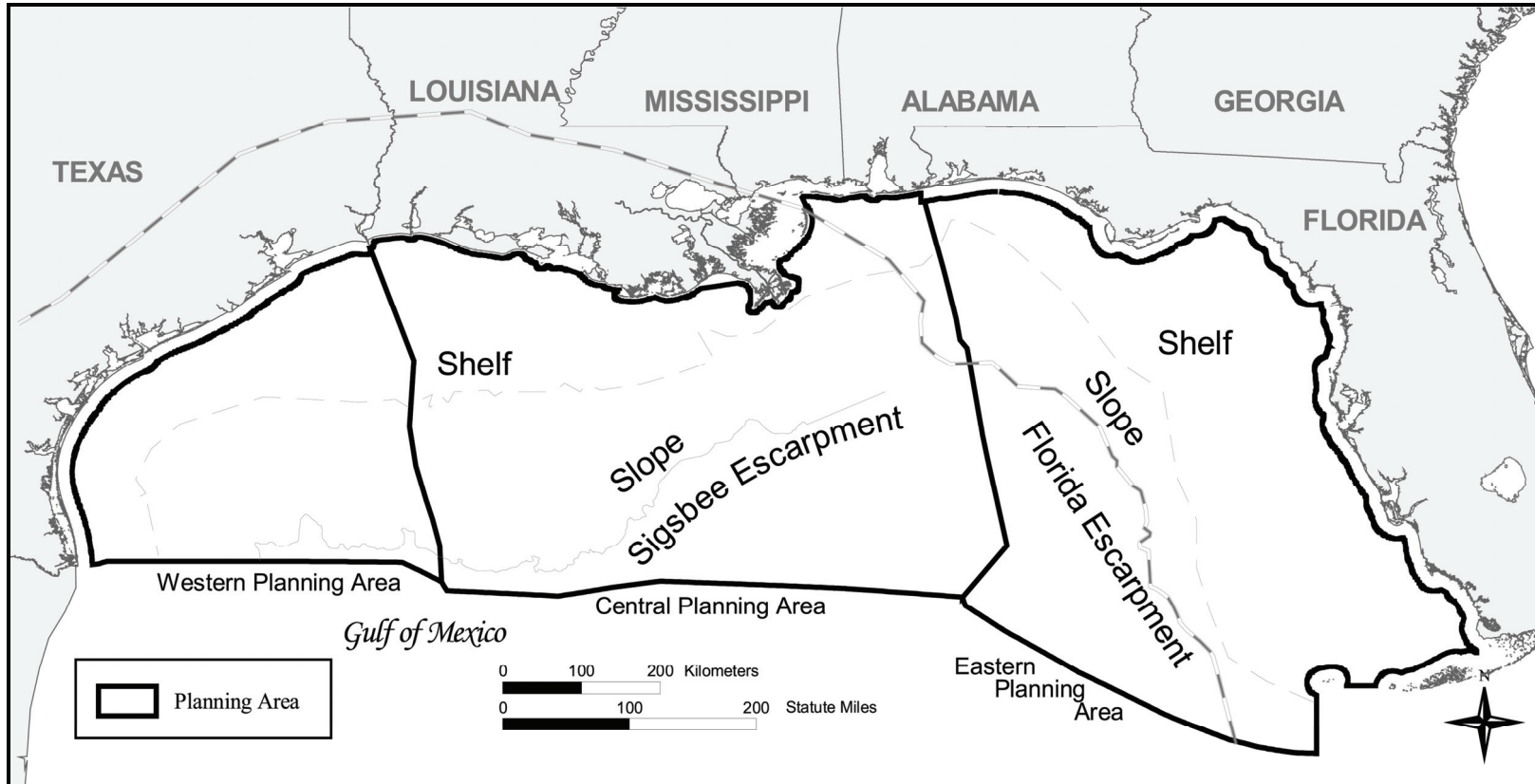


Figure A-1. Geologic Provinces of the Gulf of the Mexico.

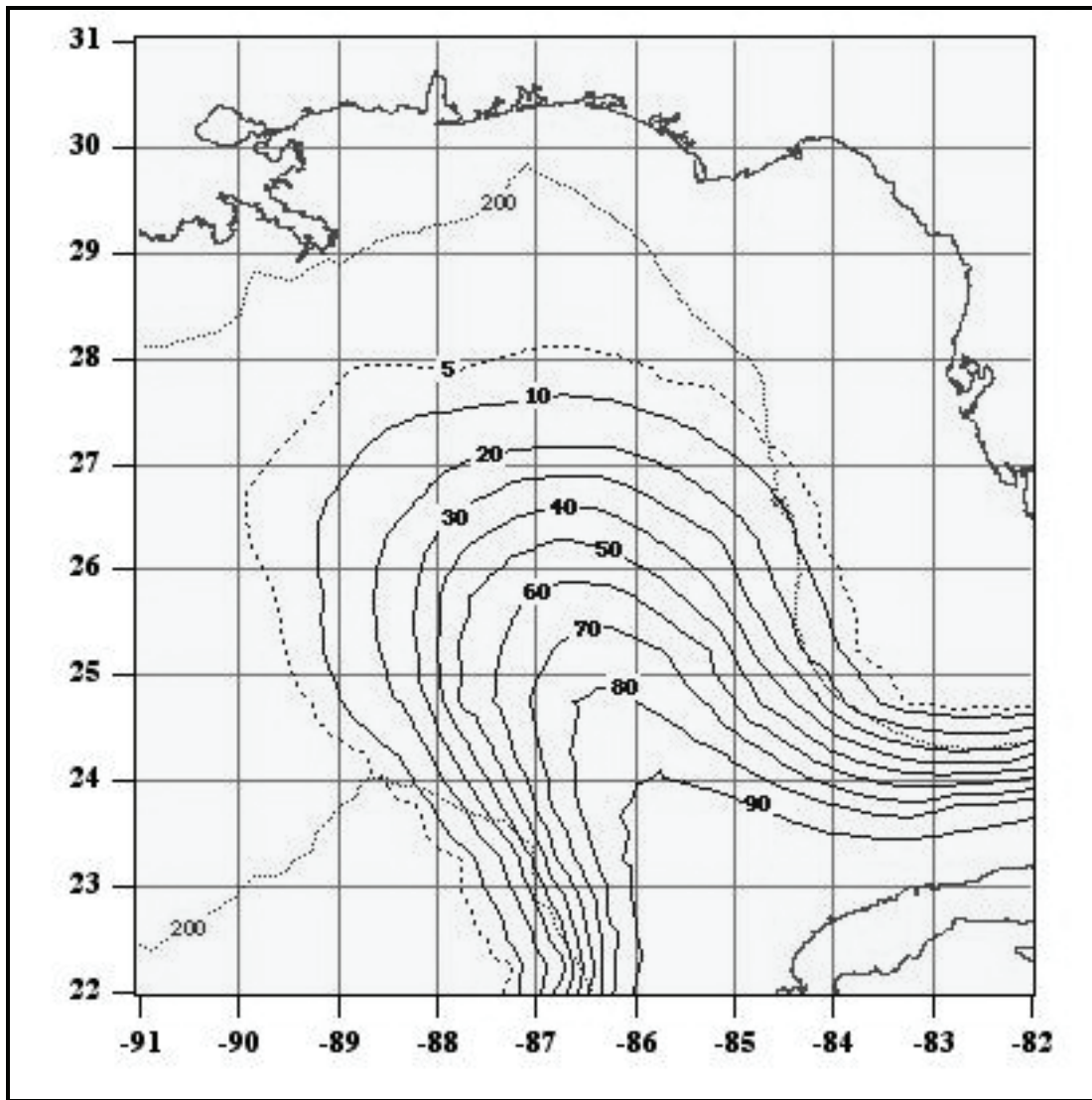


Figure A-2. Spatial Frequency (%) of the Water Mass Associated with the Loop Current in the Eastern Gulf of Mexico Based on Data for the Period 1976-2003.

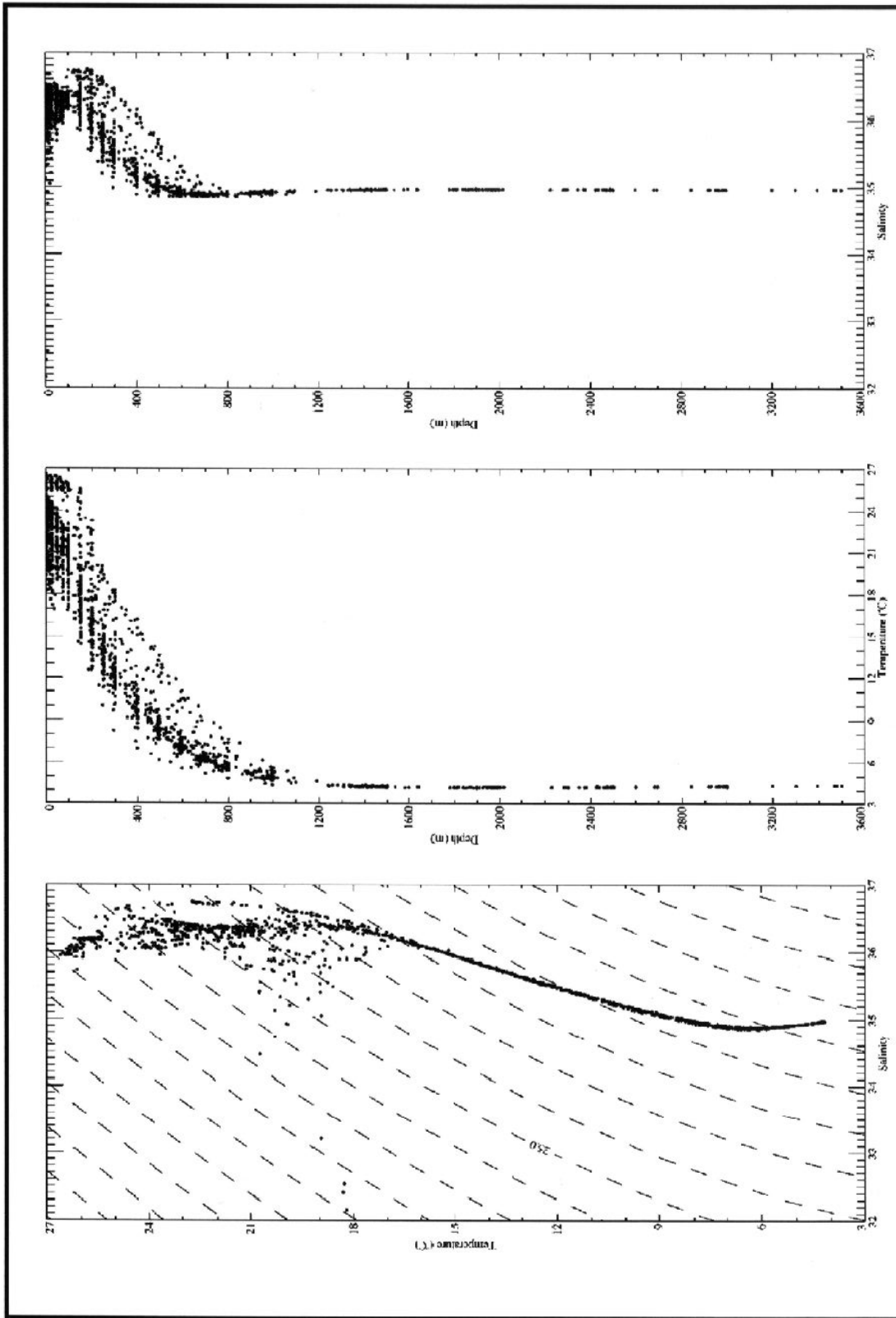


Figure A-3. Temperature vs. Salinity, Temperature vs. Depth, and Salinity vs. Depth Based on All Data Collected during Hidalgo Cruise 62-H3, February to March 1962.

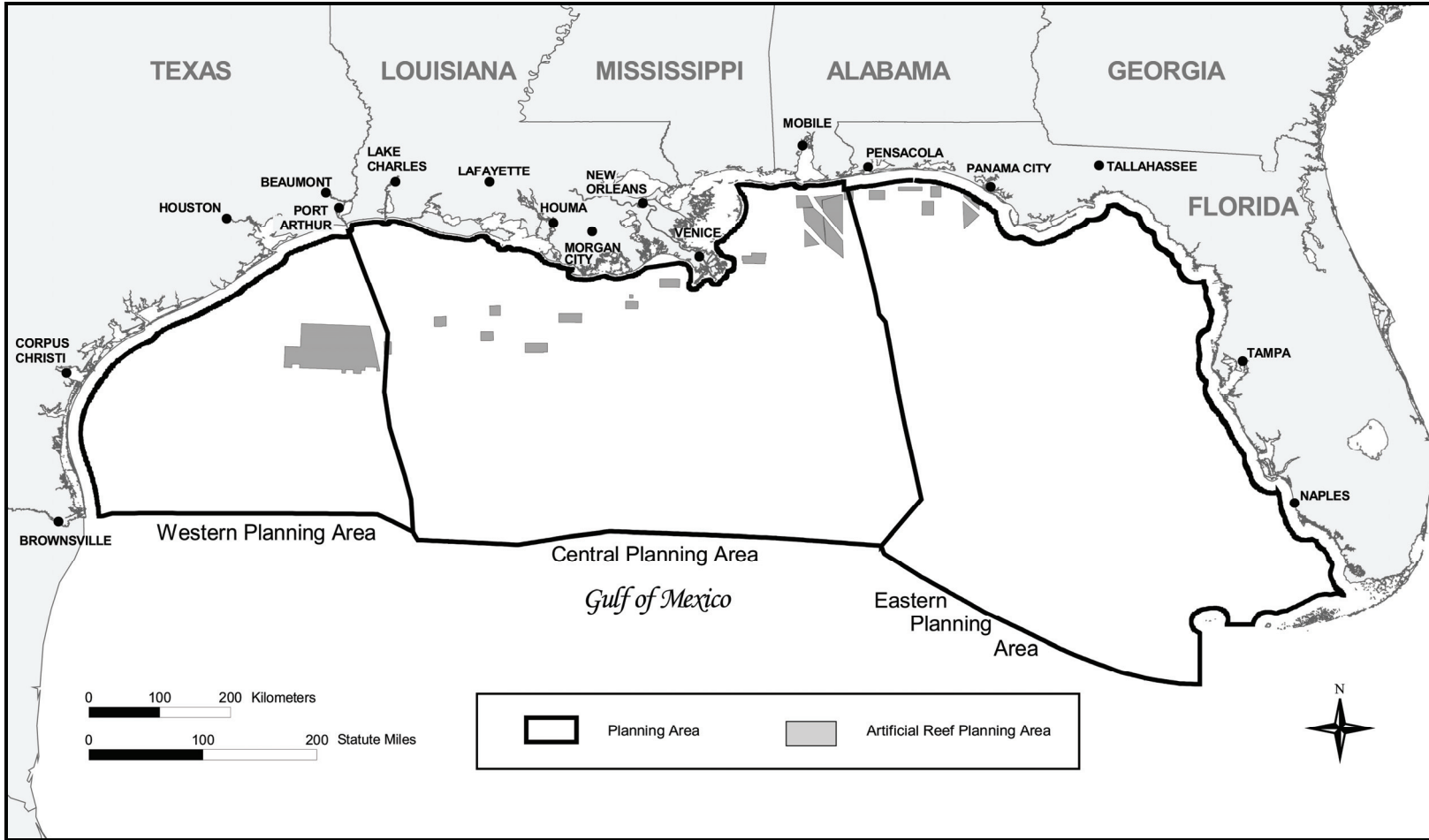


Figure A-4. Location of Artificial Reef Planning Areas in the Gulf of Mexico.

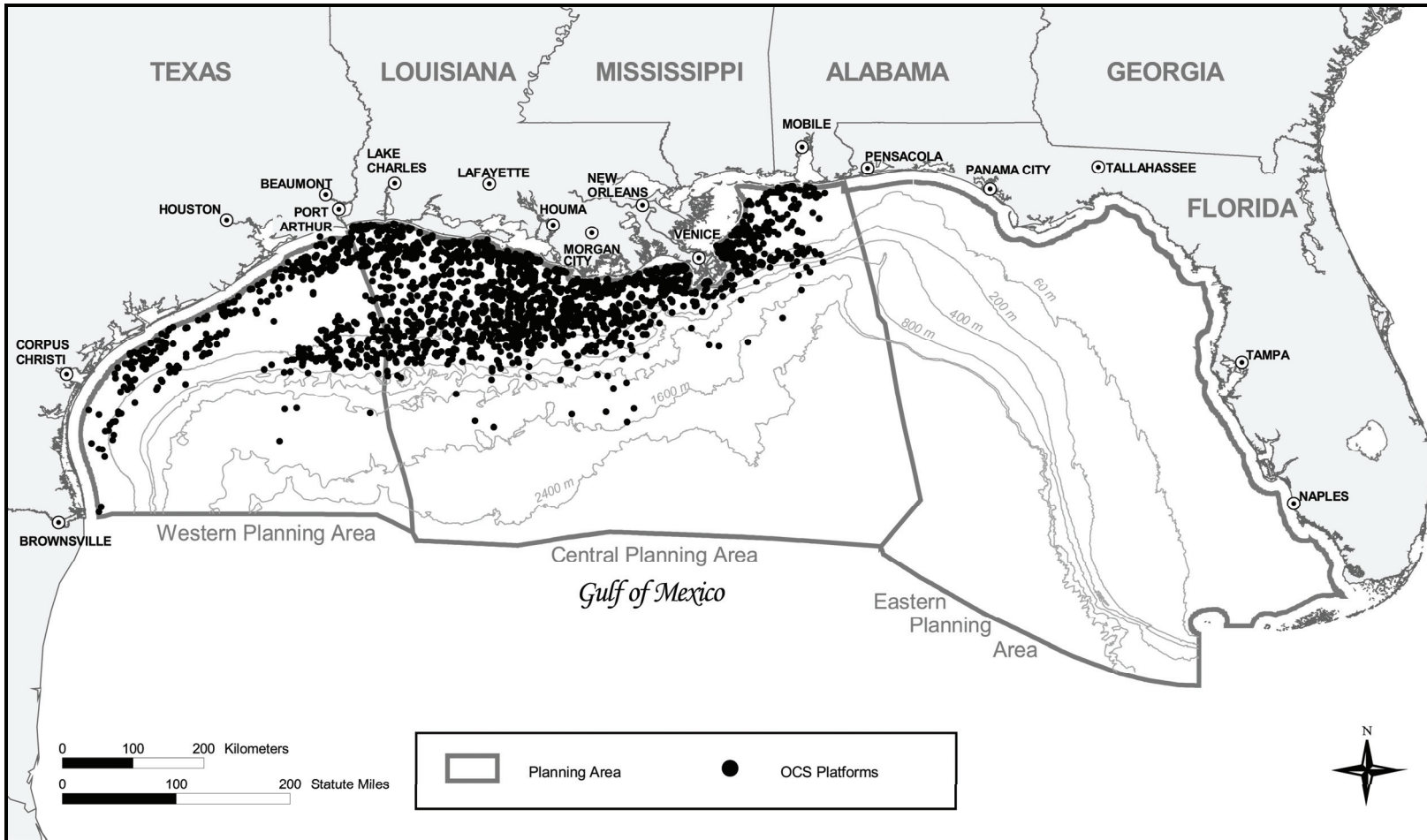


Figure A-5. OCS Platform Distribution across the Gulf of Mexico.

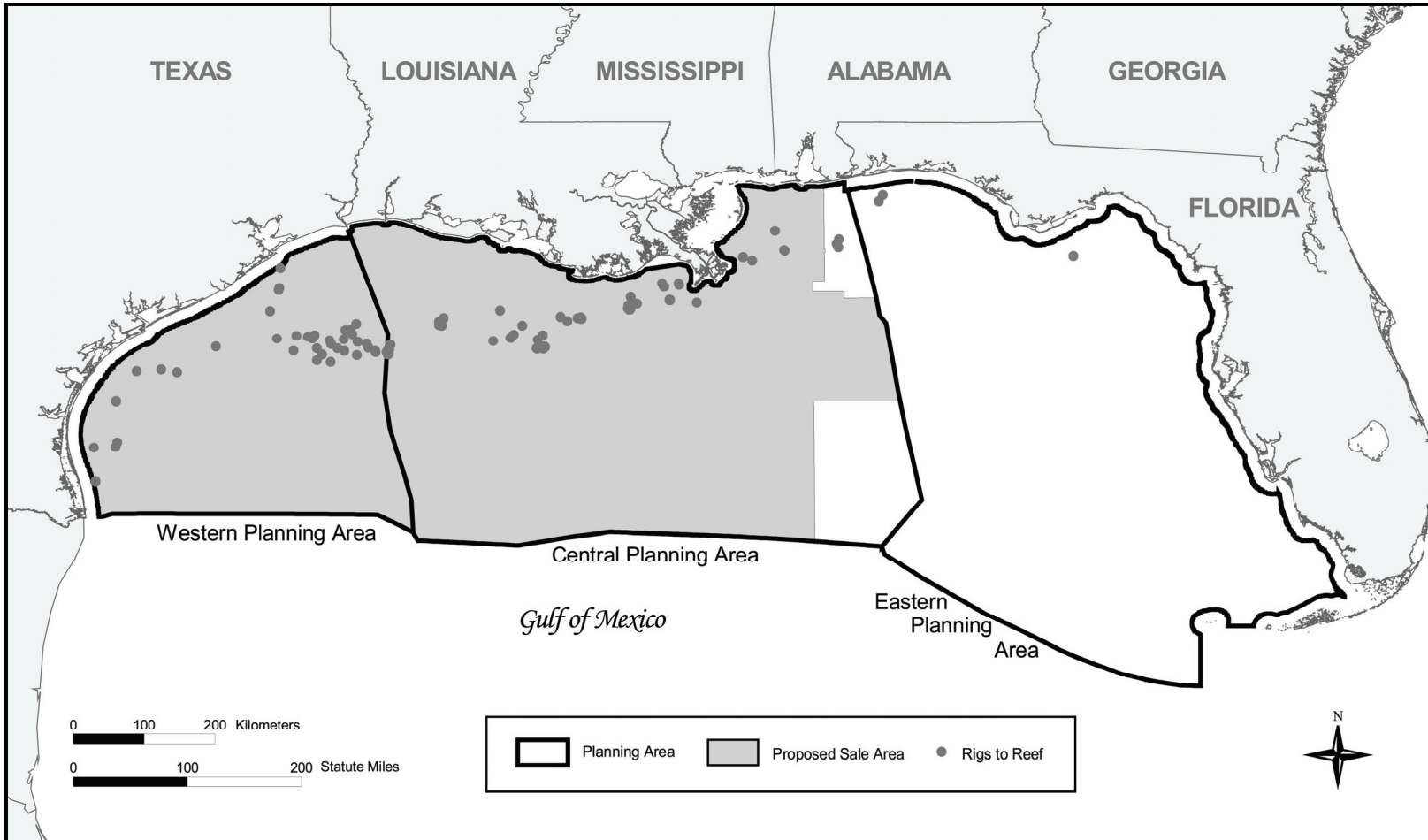


Figure A-6. Locations of Rigs-to-Reefs in the Gulf of Mexico.



# TABLES

Table 1-1  
Proposed WPA and CPA Gulf of Mexico OCS  
Lease Sales for 2007-2012

Sale	Area	Year
204	WPA	2007
205	CPA	2007
206	CPA	2008
207	WPA	2008
208	CPA	2009
210	WPA	2009
213	CPA	2010
215	WPA	2010
216	CPA	2011
218	WPA	2011
222	CPA	2012

Table 3-1

## National Ambient Air Quality Standards (NAAQS)

Pollutant	Averaging Period	Primary Standards <sup>a</sup>	Secondary Standards <sup>b</sup>
Ozone	8-hour <sup>d</sup>	0.08 ppm (157 µg/m <sup>3</sup> )	(same as primary)
Sulphur Dioxide	Annual	0.03 ppm (80 µg/m <sup>3</sup> )	NA
	24-hour	0.14 ppm (365 µg/m <sup>3</sup> )	NA
	3-hour <sup>c</sup>	NA	1,300 µg/m <sup>3</sup>
Carbon Monoxide	8-hour <sup>c</sup>	9.0 ppm (10 mg/m <sup>3</sup> )	NA
	1-hour <sup>c</sup>	35 ppm (40 mg/m <sup>3</sup> )	NA
Nitrogen Dioxide	Annual	0.053 ppm (100 µg/m <sup>3</sup> )	(same as primary)
Suspended Particulate Matter (PM <sub>10</sub> )	Annual	50 µg/m <sup>3</sup>	(same as primary)
	24-hour	150 µg/m <sup>3</sup> <sup>e</sup>	(same as primary)
	(PM <sub>2.5</sub> )	Annual	15 µg/m <sup>3</sup> <sup>f</sup>
	24-hour	65 µg/m <sup>3</sup> <sup>g</sup>	(same as primary)
Lead	Calendar Quarter	1.5 µg/m <sup>3</sup>	(same as primary)

<sup>a</sup> The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

<sup>b</sup> The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>c</sup> Not to be exceeded more than once a year.

<sup>d</sup> Three-year average of the annual fourth-highest daily maximum 8-hour average for each monitor.

<sup>e</sup> Based on the 99<sup>th</sup> percentile of 24-hour PM<sub>10</sub> concentration at each monitor.

<sup>f</sup> Based on 3-year average of annual arithmetic mean concentrations.

<sup>g</sup> Based on 3-year average of 98<sup>th</sup> percentile of 24-hour concentrations.

Note: mg/m<sup>3</sup> = milligrams per cubic meter = 1,000 µg/m<sup>3</sup>.  
µg/m<sup>3</sup> = micrograms per cubic meter.

Source: 40 CFR 50, 2005.

Table 3-2

## Selected Mean Tides Around the Western and Central Gulf of Mexico

	Daily Mean (cm)	Reference
South Padre Island, Tex.	33.8	Conrad Blucher Institute, 2001
Matagorda Island, Tex.	21.3	White et al., 1989
Sabine Pass, Mosquito Point	26.6	Conrad Blucher Institute, 2001
Grand Isle, La.	30.0	USDOC, NOAA, 1988
Chenier Plain, La.	36.0	Penland and Suter, 1989
Mobile Point, Ala.	36.6	Hummell, 1990

Table 3-3

## Biotic Zones of Topographic Features with Bank Crest and Seafloor Depth in Meters

Feature	Area	Zone	Crest (m)	Seafloor (m)
<b>Shelf Edge Banks</b>				
East Flower Gardens	Western	MS-DMP-M-S-AS-T-A-N	16	100-120
West Flower Gardens	Western	MS-DMP-M-S-AS-T-A-N	20	110-130
Alderice	Central	AS-T-A-N	55	84-90
Appelbaum	Western	AS-T-A-N	76	100-120
Bouma	Central	AS-T-A-N	60	90-100
Bright	Central	S-AS-T-A-N	37	110
Diaphus	Central	T-A-N	73	110-130
Elvers	Central	AS-T-A-N	60	180
Ewing	Central	AS-T-A-N	56	85-100
Geyer	Central	AS-T-A-N	37	190-210
Jakkula	Central	AS-T-A-N	59	120-140
MacNeil	Western	AS-T-A-N	62	86-94
McGrail	Central	S-AS-T-A-N	45	110-130
Parker	Central	AS-T-A-N	60	100
Rankin	Western	AS-T-A-N	52	110-140
Rezak	Central	AS-T-A-N	60	120
Sackett	Central	AS-T-A-N	67	100
Sidner	Central	AS-T-A-N	55	150
Sweet	Central	AS-T-A-N	75	130-200
<b>Low-Relief Midshelf Banks</b>				
32 Fathom	Western	T-A-N	52	55
Claypile	Western	A-N	40	50
Coffee Lump	Western	T-A-N	62	70
<b>Midshelf Banks</b>				
29 Fathom	Western	T-A-N	52	72
Fishnet	Central	T-A-N	66	78
Sonnier	Central	MS-M-S-AS-T-A-N	17	50
Stetson	Western	MS-M-S-AS-T-A-N	17	52
<b>Low-Relief South Texas Banks</b>				
Big Dunn Bar	Western	T-A-N	61	67
Blackfish Ridge	Western	T-A-N	60	70-74
Mysterious	Western	T-A-N	70	74-86
Small Dunn Bar	Western	T-A-N	63	67
<b>South Texas Banks</b>				
Aransas	Western	T-A-N	57	70-72
Baker	Western	T-A-N	56	70-74
Dream	Western	T-A-N	62	80
Hospital	Western	T-A-N	59	70-78
North Hospital	Western	T-A-N	58	68-70
South Baker	Western	T-A-N	59	80-84
Southern	Western	T-A-N	58	80

A = Antipatharian Zone

AS = Algal/Sponge Zone

DMP = *Diploria/Montastraea/Porites* ZoneM = *Madracis* ZoneMS = *Millepora/Sponge* Zone

N = Nepheloid Zone

S = *Stephanocoenia*

T = Transitional

Sources: Rezak and Bright, 1981; Rezak et al., 1983.

Table 3-4

Estimated Abundance of Cetaceans  
in the Northern Gulf of Mexico Oceanic Waters

Species	Common Name	Estimated Number of Individuals
<i>Balaenoptera edeni</i>	Bryde's whale	40
<i>Physeter macrocephalus</i>	Sperm whale	1,349
<i>Kogia spp.</i>	Dwarf or pygmy sperm whale	742
<i>Ziphius cavirostris</i>	Cuvier's beaked whale	95
Unidentified ziphiid	Unidentified beaked whales	146
<i>Feresa attenuata</i>	Pygmy killer whale	408
<i>Pseudorca crassidens</i>	False killer whale	1,038
<i>Orcinus orca</i>	Killer whale	133
<i>Globicephala sp.</i>	Pilot whale	2,388
<i>Peponocephala electra</i>	Melonheaded whale	3,451
<i>Grampus griseus</i>	Risso's dolphin	2,169
<i>Tursiops truncatus</i>	Bottlenose dolphin	27,559
<i>Steno bredanensis</i>	Rough-toothed dolphin	2,223
<i>Lagenodelphis hosei</i>	Fraser's dolphin	726
<i>Stenella frontalis</i>	Atlantic spotted dolphin	30,947
<i>Stenella longirostris</i>	Spinner dolphin	11,971
<i>Stenella attenuate</i>	Pantropical spotted dolphin	91,321
<i>Stenella clymene</i>	Clymene dolphin	17,355
<i>Stenella coeruleoalba</i>	Striped dolphin	6,505

Source: Waring et al., 2004.

Table 3-5

## Sea Turtle Taxa of the Northern Gulf of Mexico

Order Testudines (turtles)	Relative Occurrence	ESA Status
Family Cheloniidae (hardshell sea turtles)		
Loggerhead sea turtle ( <i>Caretta caretta</i> )	C	T/E
Green sea turtle ( <i>Chelonia mydas</i> )	C	E
Hawksbill sea turtle ( <i>Eretmochelys imbricata</i> )	R	E
Kemp's Ridley sea turtle ( <i>Lepidochelys kempii</i> )	C	E
Family Dermochelyidae (leatherback sea turtle)		
Leatherback sea turtle ( <i>Dermochelys coriacea</i> )	U	E

Population status in the northern Gulf is summarized according to the following categories:

COMMON (C): A common species is one that is abundant wherever it occurs in the region (i.e., the northern Gulf). Most common species are widely distributed over the area.

UNCOMMON (U): An uncommon species may or may not be widely distributed but does not occur in large numbers. Uncommon species are not necessarily rare or endangered.

RARE (R): A rare species is one that is present in such small numbers throughout the region that it is seldom seen. Although not threatened with extinction, a rare species may become endangered if conditions in its environment change.

Endangered Species Act (ESA) status is summarized according to listing status under the following categories:

ENDANGERED (E): Species determined to be in imminent danger of extinction throughout all of a significant portion of their range.

THREATENED (T): Species determined likely to become endangered in the foreseeable future.

Table 3-6

## Common Diving Birds in the Northern Gulf of Mexico

Common Name	Scientific Name	Occurrence*	Feeding Behavior and Diet
Common loon	<i>Gavia immer</i>	Wintering resident	Dives from surface for fish, arthropods, snails, leeches, frogs, and salamanders
Horned grebe	<i>Podiceps auritus</i>	Wintering resident	Fish and some arthropods
Eared grebe	<i>Podiceps nigricollis</i>	TX, LA, MS, AL	Arthropods
Pied-billed grebe	<i>Podilymbus podiceps</i>	Permanent resident	Arthropods, small fish
Anhinga	<i>Anhinga anhinga</i>	Permanent resident	Swims underwater for fish, frogs, snakes, and leeches
Olivaceous cormorant	<i>Phalacrocorax olivaceus</i>	*	NA
Double-crested cormorant	<i>Phalacrocorax auritus</i>	Permanent resident	NA

\*All of these diving birds are distributed Gulfwide except where otherwise indicated.

NA = Not available.

Table 3-7

## Common Marsh or Wading Birds in the Northern Gulf of Mexico

Common Name	Scientific Name	Occurrence*	Feeding Behavior and Diet
American bittern	<i>Botaurus lentiginosus</i>	*	Amphibians, small fish, small snakes, crawfish, small rodents, and water bugs
Least bittern	<i>Ixobrychus exilis</i>	Summer resident	NA
Great blue heron	<i>Ardea herodias</i>	*	Various aquatic animals
Great egret	<i>Casmerodias albus</i>	*	Fish, frogs, snakes, crawfish, and large insects
Snowy egret	<i>Egretta thula</i>	*	Arthropods, fish
Little blue heron	<i>Egretta caerulea</i>	*	Small vertebrates, crustaceans, and large insects
Tricolored heron	<i>Egretta tricolor</i>	*	NA
Reddish egret	<i>Egretta rufescens</i>	Gulfwide except for central and eastern FL Panhandle	NA
Cattle egret	<i>Bulbulcus ibis</i>	*	NA
Green-backed heron	<i>Butorides striatus</i>	Permanent resident in central LA and eastward; summer resident, TX and western LA	NA
Black-crowned night heron	<i>Nycticorax nycticorax</i>	*	NA
Yellow-crowned night heron	<i>Nyctanassa violacea</i>	Permanent resident TX, eastern LA, MS, AL, and eastern FL Panhandle	Aquatic organisms, especially crustaceans
White ibis	<i>Eudocimus albus</i>	*	NA
Glossy ibis	<i>Plegadis falcinellus</i>	*	Snakes, crawfish, and crabs
White-faced ibis	<i>Plegadis chini</i>	Permanent resident in TX and western and central LA; summer resident in eastern LA	NA
Roseate spoonbill	<i>Ajaia ajaja</i>	Permanent resident; summer resident in LA	NA

\*All wading birds are permanent residents Gulfwide unless otherwise indicated.

NA = Not available.

Table 3-8

## Common Waterfowl in the Northern Gulf of Mexico

Common Name	Scientific Name	Occurrence*	Feeding Behavior and Diet
Wood duck	<i>Aix sponsa</i>	Year-round	Dabbler; eats plants, invertebrates, tadpoles, and salamanders
Canvasback duck	<i>Aythya valisineria</i>	Year-round	Diver; feeds on molluscs and aquatic plants
Redhead duck	<i>Aythya americana</i>	*	Diver; mostly herbivorous
Ring-necked duck	<i>Aythya collaris</i>	*	Diver
Fulvous whistling duck	<i>Dendrocygna bicolor</i>	Nests in TX, LA	Feeds nocturnally on plant seeds on shore
Lesser scaup	<i>Aythya affinis</i>	High abundance	Diver; feeds on plants and animals
Greater scaup	<i>Aythya maarila</i>	*	Feeds on plants, insects, and invertebrates in nesting season; diet at sea in winter is mostly molluscs and plants
Black scoter	<i>Melanitta nigra</i>	Low abundance	Diver; feeds mostly on molluscs
White-winged scoter	<i>Melanitta fusca</i>	TX, LA, AL; low abundance	Diver; feeds mostly on shellfish
Surf scoter	<i>Melanitta perspicilla</i>	Low abundance	Diver; feeds mostly on molluscs and crustaceans
Common goldeneye	<i>Bucephala clangula</i>	*	Diver; needs on molluscs, crustaceans, insects, and aquatic plants
Bufflehead	<i>Bucephala albeola</i>	*	Diver; in fresh water, eats aquatic adult and larval insects, snails, small fish, and aquatic plant seeds; in salt water, eats crustaceans, shellfish, and snails
Common merganser	<i>Mergus merganser</i>	*	Diver; feeds on molluscs, crustaceans, aquatic insects, and some plants
Red-breasted merganser	<i>Mergus serrator</i>	*	Eats mostly fish
Hooded merganser	<i>Lophodytes cucullatus</i>	*	Diver; thin serrated bill is adapted to taking fish; also feeds on crustaceans, aquatic insects, other animals, and plants
Tundra swan	<i>Cygnus columbianus</i>	Winters on Atlantic Coast, minor presence in Gulf	NA
Greater white-fronted goose	<i>Anser albifrons</i>	TX, LA, AL	Feeds on plants and insects
Snow goose	<i>Chen caerulescens</i>	TX, LA, MS, AL	Dabbler; grazer; herbivore
Canada goose	<i>Branta canadensis</i>	*	Dabbler; herbivore
Brant goose	<i>Branta bernicla</i>	FL	Herbivore
Mallard duck	<i>Anas platyrhynchos</i>	*	Dabbler; usually a herbivore; female supplements diet with invertebrate protein source when producing eggs
Mottled duck	<i>Anas fulvigula</i>	TX, LA year-round	Dabbler; invertebrates and some plant material
American widgeon duck	<i>Anas americana</i>	*	Dabbler; may feed on widgeon grass ( <i>Ruppia maritima</i> )
Northern pintail duck	<i>Anas acuta</i>	Abundant in TX	Dabbler mostly herbivorous
Northern shoveler duck	<i>Anas clypeata</i>	*	Dabbler; strains food through combs of teeth that are found inside the bill on each side
Blue-winged teal duck	<i>Anas discors</i>	*	Dabbler; mostly herbivorous
Cinnamon teal duck	<i>Anas cyanoptera</i>	TX, west LA	Dabbler; eats invertebrates, plant seeds, and algae; sometimes skims water surface with bill
Gadwall duck	<i>Anas strepera</i>	*	Dabbler; mostly herbivorous
Ruddy duck	<i>Oxyura jamaicensis</i>	*	Diver; mostly herbivorous

\*All waterfowl are wintering residents Gulfwide unless otherwise indicated.  
NA = Not available.



Table 3-9

## Species Listed in the Gulf of Mexico Fishery Management Plans

Species	Scientific Name	Species	Scientific Name
Red Drum (1) Red drum	<i>Sciaenops ocellatus</i>	Coastal Migratory Pelagic (3) Species in the Management Unit King mackerel Spanish mackerel Cobia	<i>Scomberomorus cavalla</i> <i>Scomberomorus maculatus</i> <i>Rachycentron canadum</i>
Reef Fish (43) Balistidae—Triggerfishes (1) Gray triggerfish	<i>Balistes caprisicus</i>	Species in the Fishery, but not in the Management Unit Cero Little tunny Dolphin Bluefish (GOM only)	<i>Scomberomorus regalis</i> <i>Euthynnus alleteratus</i> <i>Coryphaena hippurus</i> <i>Pomatomus saltatrix</i>
Carangidae—Jacks (4) Greater amberjack Lesser amberjack Almaco jack Banded rudderfish	<i>Seriola dumerili</i> <i>Seriola fasciata</i> <i>Seriola rivoliana</i> <i>Seriola zonata</i>		
Labridae—Wrasses (1) Hogfish	<i>Lachnolaimus maximus</i>	Shrimp (4) Brown shrimp White shrimp Pink shrimp Royal red shrimp	<i>Penaeus aztecus</i> <i>Penaeus setiferus</i> <i>Penaeus duorarum</i> <i>Pleoticus robustus</i>
Lutjanidae—Snappers (14) Queen snapper Mutton snapper Schoolmaster Blackfin snapper Red snapper Cubera snapper Gray snapper Dog snapper Mahogany snapper Lane snapper Silk snapper Yellowtail snapper Wenchman Vermilion snapper	<i>Etelis oculatus</i> <i>Lutjanus analis</i> <i>Lutjanus apodus</i> <i>Lutjanus buccanella</i> <i>Lutjanus campechanus</i> <i>Lutjanus cyanopterus</i> <i>Lutjanus griseus</i> <i>Lutjanus jocu</i> <i>Lutjanus mahogoni</i> <i>Lutjanus synagris</i> <i>Lutjanus vivanus</i> <i>Ocyurus chrysurus</i> <i>Pristipomoides aquilonaris</i> <i>Rhomboplites aurorubens</i>	Stone Crab (2) Species in the Management Unit Stone Crab Stone Crab (Cedar Key N)	<i>Menippe mercenaria</i> <i>Menippe adina</i>
Malacanthidae—Tilefishes (5) Goldface tilefish Blackline tilefish Anchor tilefish Blueline tilefish (Golden) Tilefish	<i>Caulolatilus chrysops</i> <i>Caulolatilus cyanops</i> <i>Caulolatilus intermedius</i> <i>Caulolatilus microps</i> <i>Lopholatilus chamaeleonticeps</i>	Spiny Lobster (2) Species in the Management Unit Spiny lobster Slipper lobster	<i>Panulirus argus</i> <i>Scyllarides nodife</i>
Serranidae—Groupers (18) Dwarf sand perch Sand perch Rock hind Speckled hind Yellowedge grouper Red hind Goliath grouper Red grouper Misty grouper Warsaw grouper Snowy grouper Nassau grouper Marbled grouper Black grouper Yellowmouth grouper Gag Scamp Yellowfin grouper	<i>Diplectrum bivittatum</i> <i>Diplectrum formosum</i> <i>Epinephelus adscensionis</i> <i>Epinephelus drummondhayi</i> <i>Epinephelus flavolimbatus</i> <i>Epinephelus guttatus</i> <i>Epinephelus itajara</i> <i>Epinephelus morio</i> <i>Epinephelus mystacinus</i> <i>Epinephelus nigritus</i> <i>Epinephelus niveatus</i> <i>Epinephelus striatus</i> <i>Epinephelus inermis</i> <i>Mycteroperca bonaci</i> <i>Mycteroperca interstitialis</i> <i>Mycteroperca microlepis</i> <i>Mycteroperca phenax</i> <i>Mycteroperca venenosa</i>	Species in the fishery but not in the Management Unit Spotted spiny lobster Smooth tail lobster Spanish slipper lobster	<i>Panulirus guttatus</i> <i>Panulirus laeviscauda</i> <i>Scyllarides aequinoctialis</i>

Source: Adopted from Table 1.5.1, GMFMC (2004).

Table 3-10

Gulf of Mexico Essential Fish Habitat Assessment  
(species under Gulf of Mexico Fishery Management Plans)

Species	Presence in Destin Dome Unit	Bay and Estuary Relationships	Adult Prey Species
<b>Invertebrates</b>			
brown shrimp	adult present year-round	major nursery area	omnivorous
white shrimp	occurs; only most northern part	nursery area	omnivorous
pink shrimp	not present	nursery area	omnivorous
stone crab	uncommon; only most northern part	nursery area	opportunistic carnivore
spiny lobster	occurs	none noted	mollusks and arthropods
<b>Fish in Taxonomic Order</b>			
gag grouper	occurs	seagrass beds, nursery nearshore	primarily fish
red grouper	adult present year-round	none noted	primarily fish
scamp grouper	occurs	none noted	primarily fish
tilefish	rare; only in deepest waters	none noted	primarily crustaceans
cobia	adult present during summer	nursery nearshore	primarily crustaceans and some fish
lesser amberjack	occurs	none noted	cephalopods
greater amberjack	occurs	none noted	variety fish, crustaceans, and cephalopods
dolphin fish	adult present year-round	none noted	pelagic fish
lane snapper	occurs	nursery nearshore	fish, crustaceans, mollusks, algae
gray snapper	adult present year-round	nursery nearshore	fish, shrimp, and crabs
red snapper	adult present year-round	nursery nearshore	fish, shrimp
red drum	uncommon; only most northern part	nursery nearshore	crustaceans
yellowtail snapper	occurs	none noted	benthic fish and crustaceans
king mackerel	adult present year-round; spawning	none noted	mostly fish, anchovies, and herrings
spanish mackerel	uncommon; northern part only	nursery nearshore	mostly fish, anchovies, and herrings
gray triggerfish	occurs	none noted	mostly bivalves and barnacles; also polychaetes and echinoderms

Table 3-11

Gulf of Mexico Essential Fish Habitat Assessment  
(highly migratory species managed by NOAA Fisheries Service)

Species	Presence in Western or Central Planning Areas; Eco-regions 3, 4, or 5 (GMFMC, 2004)	Known Prey Species
<b>Billfish</b>		
blue marlin	Juvenile/subadult and adults occur in area beyond 100-m contour	Adults: fish at surface, and deepwater: scombrids, cephalopods
white marlin	Juvenile/subadult and adults occur in area beyond 50-m contour	Juveniles/fish; adults/squid and fish
sailfish	Juvenile/subadult only occurs to south of area beyond 200-m contour	Pelagic schooling fish and squids
Swordfish	Spawning and eggs/larvae and adults occur in area beyond 100-m contour	Larvae: zooplankton, fish larvae Juveniles: fish, squid, pelagic crustaceans Adults: pelagic fish, squid, demersal fish
<b>Tunas</b>		
bluefin tuna	Spawning and eggs/larvae occur in area no juvenile/subadult or adult noted	Juveniles: crustacea, larval, and small fish
skipjack tuna	Spawning, eggs/larvae occurs to south of area beyond 200-m contour	Larvae: small fish
yellowfin tuna	Spawning and eggs/larvae, subadult, and adult occurs to south of area beyond 200-m contour	Larvae: small fish Juveniles: fish Adults: crustacea and fish
<b>Sharks</b>		
blacktip	Late juvenile/subadult only noted in area, nearshore	None noted (unknown)
bull	Late juvenile/subadult only noted in area, nearshore	None noted (unknown)
dusky	No life stage occurrence noted, but area designated as research area	None noted (unknown)
silky	Neonate/early juvenile only noted south of area beyond 200-m contour	None noted (unknown)
tiger	Neonate/early juvenile, late juvenile, subadult, and adult occurs in area	None noted (unknown)
Atlantic sharpnose	Adults only in area	None noted (unknown)
Longfin mako	Neonate/early juvenile, and juvenile/ subadult occur to south of area beyond 200-m contour; adults occur in area beyond 100-m contour	None noted (unknown)

Table 3-12

Top Species Commonly Caught by Recreational Fishers in the  
Marine Recreational Fisheries Statistics Gulf Coast States (2005)

Species	Number Fish	Inland (#)	Ocean (#)	Pounds	Inland (lb)	Ocean (lb)
Black drum	1,146,707	965,631	181,076	2,010,778	1,818,868	191,910
Dolphins	351,218	0	351,218	1,359,500	0	1,359,500
Gray snapper	5,929,017	3,749,438	2,179,579	1,998,595	313,055	1,685,540
Great amberjack	217,045	1,872	215,173	1,485,219	7,857	1,477,362
Herrings	30,374,315	24,990,502	5,383,813	773,356	731,757	41,599
King mackerel	405,226	25,083	380,143	1,791,314	23,408	1,767,906
Mycteroperca groupers	3,199,719	495,853	2,703,866	4,067,011	244,316	3,822,695
Pinfishes	10,593,868	5,873,515	4,720,353	1,239,773	627,284	612,489
Red drum	7,688,465	6,050,791	1,637,674	10,711,841	9,123,356	1,588,485
Red snapper	2,986,162	55,769	2,930,393	3,638,264	18,750	3,619,514
Saltwater catfishes	10,570,516	7,672,959	2,897,557	810,237	640,569	169,668
Sand seatrout	2,604,437	2,117,580	486,857	911,186	731,158	180,028
Sheepshead	4,060,699	3,065,549	995,150	5,434,088	3,557,581	1,876,507
Spotted seatrout	30,060,398	23,191,943	6,868,455	11,999,073	9,576,037	2,423,036

Source: USDOC, NOAA, NMFS, 2006.

Table 3-13

Recreational Fishing Participation in the  
Marine Recreational Fisheries Statistics Gulf Coast States (2005)

State	Participation Estimates (number of people)			
	Coastal	Non-Coastal	Out-of-State	Total
West Florida	2,095,356	0	2,019,122	4,114,477
Alabama	227,471	98,320	162,136	487,927
Mississippi	107,436	29,731	38,400	175,567
Louisiana	702,922	67,241	135,866	906,029
Gulf Total	3,133,185	195,292	2,355,524	5,684,000

Source: USDOC, NOAA, NMFS, 2006.

Table 3-14

Mode of Fishing in the Marine Recreational Fisheries Statistics Gulf Coast States  
(not including Texas) (2005)

State	Area	Number of Trips	% State Total
Alabama	Shore Ocean ( $\leq 3$ mi)	453,078	28.5%
	Shore Inland	257,177	16.2%
	Charter Ocean ( $\leq 3$ mi)	4,781	0.3%
	Charter Ocean ( $> 3$ mi)	52,012	3.3%
	Charter Inland	9,723	0.6%
	Private/Rental Ocean ( $\leq 3$ mi)	252,235	15.9%
	Private/Rental Ocean ( $> 3$ mi)	240,431	15.1%
	Private/Rental Inland	318,662	20.1%
	Total	1,588,099	
West Florida	Shore Ocean ( $\leq 10$ mi)	2,935,056	18.7%
	Shore Inland	3,364,072	21.4%
	Charter Ocean ( $\leq 10$ mi)	175,042	1.1%
	Charter Ocean ( $> 10$ mi)	375,948	2.4%
	Charter Inland	157,120	1.0%
	Private/Rental Ocean ( $\leq 10$ mi)	3,008,528	19.1%
	Private/Rental Ocean ( $> 10$ mi)	1,025,078	6.5%
	Private/Rental Inland	4,691,298	29.8%
	Total	15,732,142	
Louisiana	Shore Ocean ( $\leq 3$ mi)	160,463	4.1%
	Shore Inland	1,007,066	25.6%
	Charter Ocean ( $\leq 3$ mi)	14,347	0.4%
	Charter Ocean ( $> 3$ mi)	39,068	1.0%
	Charter Inland	103,595	2.6%
	Private/Rental Ocean ( $\leq 3$ mi)	90,538	2.3%
	Private/Rental Ocean ( $> 3$ mi)	99,375	2.5%
	Private/Rental Inland	2,421,441	61.5%
	Total	3,935,893	
Mississippi	Shore Ocean ( $\leq 3$ mi)	6,174	0.7%
	Shore Inland	393,800	43.7%
	Charter Ocean ( $\leq 3$ mi)	6,174	0.7%
	Charter Ocean ( $> 3$ mi)	2,157	0.2%
	Charter Inland	3,337	0.4%
	Private/Rental Ocean ( $\leq 3$ mi)	8,406	0.9%
	Private/Rental Ocean ( $> 3$ mi)	28,795	3.2%
	Private/Rental Inland	451,845	50.2%
	Total	900,688	
Gulf Total	Shore Ocean ( $\leq 3$ mi)	3,554,771	16.0%
	Shore Inland	5,022,115	22.7%
	Charter Ocean ( $\leq 3$ mi)	200,344	0.9%
	Charter Ocean ( $> 3$ mi)	469,185	2.1%
	Charter Inland	273,775	1.2%
	Private/Rental Ocean ( $\leq 3$ mi)	3,359,707	15.2%
	Private/Rental Ocean ( $> 3$ mi)	1,393,679	6.3%
	Private/Rental Inland	7,883,246	35.6%
	Total	22,156,822	28.5%

Source: USDOC, NOAA, NMFS, 2006.

Table 3-15

## Employment in Tourism-Related Industries by Labor Market Area in 2004

Labor Market Area	Total Mid-March Employees	Total Establishments	Establishments by Employment Size Class			
			1 to 9	10 to 49	50 to 249	250 or more
Mobile	45,084	2,416	47,500	823	179	1,002
Alabama State Total	271,747	14,673	8,537	4,930	1,115	91
Biloxi – Gulfport	45,944	1,673	47,617	574	106	680
Mississippi State Total	203,337	9,725	5,737	3,267	642	79
Lake Charles	22,866	997	564	349	72	12
Lafayette	34,723	1,853	1,075	647	120	11
Baton Rouge	53,333	2,499	1,382	867	236	14
Houma	18,400	1,007	614	328	58	7
New Orleans	126,556	5,358	3,109	1,721	469	59
Louisiana State Total	323,895	15,488	8,963	5,156	1,241	128
Brownsville	50,655	2,592	1,529	861	180	22
Corpus Christi	29,826	1,747	1,055	572	113	7
Brazoria	17,077	979	622	290	60	7
Victoria	12,299	885	549	294	41	1
Beaumont - Port Arthur	26,693	1,478	917	437	114	10
Houston - Galveston	328,675	15,029	8,816	4,681	1,404	128
Texas State Total	1,448,422	70,387	40,930	23,137	5,811	509
Panama City	58,779	2,744	1,578	864	285	17
Pensacola	47,710	2,298	1,335	740	206	17
Lake City	29,344	1,419	790	492	129	8
Tallahassee	7,559	550	369	154	24	3
Gainesville	22,096	1,195	765	318	105	7
Ocala	22,125	1,162	699	361	94	8
Tampa - St. Petersburg	184,635	8,494	5,319	2,183	929	63
Ft. Myers	29,074	1,140	653	330	145	12
Miami	149,518	7,592	4,955	1,923	661	53
Sarasota	55,498	2,735	1,661	765	298	11
Florida State Total	1,340,117	61,177	38,055	16,716	5,913	493

Source: USDOC, Bureau of the Census, 2006.

Table 3-16

## Employment in Tourism-Related Industries by Economic Impact Area in 2004

Economic Impact Area (EIA)	Total Mid-March Employees	Total Establishments	Establishments by Employment Size Class			
			1 to 9	10 to 49	50 to 249	250 or more
AL-1	45,084	2,416	47,500	823	179	1,002
MS-1	45,944	1,673	47,617	574	106	680
LA-1	22,866	997	564	349	72	12
LA-2	34,723	1,853	1,075	647	120	11
LA-3	71,733	3,506	1,996	1,195	294	21
LA-4	126,556	5,358	3,109	1,721	469	59
Louisiana EIA Total	255,878	11,714	6,744	3,912	955	103
TX-1	80,481	4,339	2,584	1,433	293	29
TX-2	29,376	1,864	1,171	584	101	8
TX-3	355,368	16,507	9,733	5,118	1,518	138
Texas EIA Total	465,225	22,710	13,488	7,135	1,912	175
FL-1	64,062	3,203	1,866	1,046	269	22
FL-2	36,903	1,969	1,159	646	153	11
FL-3	228,856	10,851	6,783	2,862	1,128	78
FL-4	276,517	13,306	8,316	3,576	1,326	88
Florida EIA Total	606,338	29,329	18,124	8,130	2,876	199

Source: USDOC, Bureau of the Census, 2006.





Table 3-18

## Demographic and Employment Baseline Projections for Economic Impact Area TX-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	1,172.83	1,488.18	1,581.51	1,617.80	1,651.49	1,686.51	1,717.47	1,748.38	1,779.06	1,809.74	1,967.42	2,128.28	2,293.97	2,467.95
AGE UNDER 19 YEARS	37.80%	36.11%	35.96%	35.75%	35.42%	35.13%	34.84%	34.60%	34.31%	33.99%	32.47%	31.07%	28.89%	27.61%
AGE 20 TO 34 YEARS	22.60%	21.36%	21.71%	21.90%	21.82%	21.66%	21.53%	21.37%	21.29%	21.27%	20.77%	20.01%	20.61%	20.20%
AGE 35 TO 49 YEARS	17.93%	19.50%	18.97%	18.85%	18.90%	18.98%	19.03%	19.11%	19.17%	19.16%	19.52%	20.16%	19.86%	19.71%
AGE 50 TO 64 YEARS	11.33%	12.33%	12.78%	13.01%	13.39%	13.78%	14.14%	14.46%	14.72%	14.97%	15.71%	15.95%	16.39%	16.92%
AGE 65 YEARS AND OVER	10.34%	10.70%	10.58%	10.50%	10.47%	10.46%	10.46%	10.47%	10.51%	10.61%	11.53%	12.81%	14.24%	15.56%
MEDIAN AGE OF POPULATION (YEARS)	29.89	32.65	33.01	33.12	33.50	33.88	34.26	34.61	34.94	35.28	36.59	37.90	39.52	41.08
WHITE POPULATION	25.27%	20.45%	19.16%	18.78%	18.45%	18.16%	17.89%	17.63%	17.38%	17.15%	16.14%	15.29%	14.61%	14.09%
BLACK POPULATION	1.38%	1.38%	1.29%	1.26%	1.25%	1.24%	1.23%	1.22%	1.21%	1.20%	1.16%	1.13%	1.11%	1.09%
NATIVE AMERICAN POPULATION	0.14%	0.17%	0.18%	0.18%	0.17%	0.17%	0.17%	0.17%	0.17%	0.16%	0.15%	0.14%	0.13%	0.12%
ASIAN AND PACIFIC ISLANDER POP	0.40%	0.73%	0.78%	0.80%	0.81%	0.83%	0.84%	0.85%	0.87%	0.88%	0.92%	0.96%	0.98%	1.01%
HISPANIC POPULATION	72.81%	77.27%	78.59%	78.98%	79.32%	79.61%	79.87%	80.13%	80.38%	80.61%	81.62%	82.48%	83.17%	83.69%
MALE POPULATION	48.53%	48.68%	48.69%	48.71%	48.68%	48.68%	48.67%	48.66%	48.65%	48.64%	48.59%	48.53%	48.44%	48.35%
TOTAL EMPLOYMENT (THOUSANDS)	471.14	640.56	688.24	702.46	716.70	730.94	745.17	759.41	773.64	787.88	859.04	930.22	1,001.40	1,072.57
FARM EMPLOYMENT	3.25%	2.00%	1.89%	1.84%	1.80%	1.76%	1.72%	1.68%	1.65%	1.61%	1.46%	1.33%	1.21%	1.12%
AGRICULTURAL SERVICES, OTHER	2.26%	2.41%	2.55%	2.53%	2.52%	2.50%	2.49%	2.48%	2.46%	2.45%	2.39%	2.35%	2.30%	2.27%
MINING	2.81%	1.58%	1.54%	1.51%	1.49%	1.47%	1.45%	1.42%	1.41%	1.39%	1.30%	1.23%	1.17%	1.11%
CONSTRUCTION	5.68%	6.87%	6.66%	6.66%	6.65%	6.65%	6.65%	6.64%	6.64%	6.64%	6.62%	6.61%	6.60%	6.60%
MANUFACTURING	8.57%	6.37%	4.90%	4.84%	4.79%	4.74%	4.69%	4.65%	4.60%	4.56%	4.36%	4.20%	4.05%	3.93%
TRANSPORT, COMM. & PUBLIC UTIL	3.81%	4.44%	4.29%	4.27%	4.26%	4.25%	4.23%	4.22%	4.21%	4.20%	4.15%	4.11%	4.07%	4.04%
WHOLESALE TRADE	3.93%	3.34%	3.05%	3.02%	2.99%	2.96%	2.93%	2.91%	2.88%	2.86%	2.75%	2.66%	2.58%	2.51%
RETAIL TRADE	19.05%	17.89%	17.78%	17.67%	17.58%	17.48%	17.39%	17.31%	17.22%	17.14%	16.78%	16.47%	16.21%	15.98%
FINANCE, INS. & REAL ESTATE	5.80%	5.67%	6.01%	5.97%	5.93%	5.89%	5.85%	5.81%	5.78%	5.75%	5.59%	5.47%	5.36%	5.26%
SERVICES	24.72%	30.13%	32.73%	32.96%	33.19%	33.40%	33.61%	33.80%	33.99%	34.18%	35.01%	35.71%	36.31%	36.83%
FEDERAL CIVILIAN GOVT	2.53%	1.92%	1.78%	1.76%	1.73%	1.71%	1.68%	1.66%	1.64%	1.62%	1.53%	1.48%	1.38%	1.32%
FEDERAL MILITARY GOVT	1.65%	1.65%	1.44%	1.41%	1.38%	1.36%	1.34%	1.31%	1.29%	1.27%	1.17%	1.09%	1.02%	0.96%
STATE AND LOCAL GOVT	15.95%	15.74%	15.40%	15.55%	15.70%	15.84%	15.97%	16.10%	16.22%	16.34%	16.88%	17.33%	17.72%	18.06%
TOTAL EARNINGS (MILLIONS 1996 \$)	10,800.99	16,122.59	18,078.88	18,608.83	19,122.16	19,641.84	20,171.93	20,703.28	21,246.07	21,800.60	24,759.66	28,058.99	31,743.04	35,862.37
FARM EARNINGS	1.32%	1.27%	1.19%	0.98%	0.97%	0.96%	0.95%	0.94%	0.93%	0.92%	0.88%	0.83%	0.79%	0.75%
AGRICULTURAL SERVICES, OTHER	1.24%	1.08%	1.02%	1.01%	1.01%	1.00%	0.99%	0.98%	0.97%	0.97%	0.94%	0.92%	0.90%	0.88%
MINING	4.35%	3.04%	2.96%	3.09%	3.02%	2.95%	2.89%	2.82%	2.76%	2.71%	2.44%	2.21%	2.00%	1.82%
CONSTRUCTION	5.83%	6.52%	6.50%	6.67%	6.65%	6.62%	6.59%	6.56%	6.53%	6.50%	6.36%	6.22%	6.09%	5.96%
MANUFACTURING	11.24%	9.44%	8.24%	8.14%	8.03%	7.93%	7.85%	7.78%	7.71%	7.63%	7.23%	6.79%	6.32%	5.82%
TRANSPORT, COMM. & PUBLIC UTIL	5.58%	6.37%	5.64%	5.61%	5.58%	5.56%	5.53%	5.51%	5.48%	5.46%	5.35%	5.26%	5.17%	5.10%
WHOLESALE TRADE	4.71%	4.45%	4.60%	4.55%	4.49%	4.43%	4.38%	4.33%	4.28%	4.23%	4.00%	3.80%	3.61%	3.44%
RETAIL TRADE	12.55%	11.88%	11.96%	11.87%	11.78%	11.70%	11.63%	11.56%	11.50%	11.44%	11.13%	10.84%	10.56%	10.29%
FINANCE, INS. & REAL ESTATE	3.83%	4.90%	5.41%	5.39%	5.40%	5.41%	5.41%	5.42%	5.42%	5.42%	5.44%	5.46%	5.47%	5.48%
SERVICES	22.78%	24.95%	26.51%	26.76%	27.04%	27.31%	27.58%	27.84%	28.11%	28.38%	29.74%	31.15%	32.60%	34.09%
FEDERAL CIVILIAN GOVT	5.72%	4.83%	4.73%	4.68%	4.63%	4.58%	4.52%	4.46%	4.41%	4.35%	4.09%	3.84%	3.62%	3.41%
FEDERAL MILITARY GOVT	2.24%	2.74%	2.56%	2.37%	2.34%	2.31%	2.28%	2.25%	2.23%	2.20%	2.07%	1.94%	1.82%	1.70%
STATE AND LOCAL GOVT	18.60%	18.52%	18.68%	18.88%	19.06%	19.24%	19.39%	19.53%	19.66%	19.79%	20.33%	20.74%	21.04%	21.25%
PERSONAL INCOME (MILLIONS 1996 \$)	15,354.71	23,186.51	25,745.65	26,534.84	27,325.92	28,110.62	28,913.42	29,728.96	30,564.67	31,421.16	36,037.74	41,275.27	47,232.58	54,025.27
INCOME PER CAPITA (1996 \$)	13,092.03	15,580.45	16,279.13	16,401.79	16,546.21	16,667.96	16,834.90	17,003.70	17,180.24	17,362.23	18,317.26	19,393.71	20,589.88	21,890.76
W&P WEALTH INDEX (U.S. = 100)	65.16	65.20	68.06	69.54	69.36	69.31	69.25	69.20	69.15	69.10	68.93	68.81	68.75	68.75
PERSONS PER HOUSEHOLD (PEOPLE)	3.34	3.29	3.28	3.26	3.25	3.24	3.23	3.22	3.21	3.20	3.17	3.15	3.15	3.17
MEAN HOUSEHOLD INCOME (1996 \$)	41,608.62	50,577.77	53,915.65	56,277.77	56,582.31	56,790.23	57,132.85	57,427.38	57,811.54	58,213.31	60,461.77	63,408.15	66,916.85	71,012.23
NUMBER OF HOUSEHOLDS (THOUSANDS)	351.28	451.74	482.89	495.61	507.65	520.28	531.62	542.91	554.10	565.29	621.48	675.50	727.93	779.01
LESS THAN \$10,000 (2000 \$)	22.00%	17.46%	16.66%	16.41%	16.16%	15.92%	15.67%	15.44%	15.21%	14.98%	13.88%	12.72%	11.33%	9.77%
\$10,000 TO \$19,999	20.87%	19.58%	18.71%	18.44%	18.18%	17.91%	17.63%	17.37%	17.11%	16.85%	15.62%	14.32%	12.76%	11.01%
\$20,000 TO \$29,999	15.98%	15.90%	15.55%	15.43%	15.31%	15.17%	15.01%	14.83%	14.65%	14.45%	13.50%	12.46%	11.14%	9.62%
\$30,000 TO \$44,999	16.69%	17.42%	18.02%	18.23%	18.43%	18.64%	18.84%	19.05%	19.25%	19.44%	20.13%	20.48%	20.10%	18.44%
\$45,000 TO \$59,999	10.38%	11.21%	11.76%	11.93%	12.10%	12.27%	12.45%	12.64%	12.83%	13.02%	14.02%	15.23%	16.85%	18.90%
\$60,000 TO \$74,999	5.97%	6.93%	7.26%	7.36%	7.46%	7.57%	7.68%	7.79%	7.90%	8.01%	8.61%	9.35%	10.49%	12.18%
\$75,000 TO \$99,999	3.94%	5.97%	6.24%	6.32%	6.40%	6.49%	6.58%	6.67%	6.76%	6.86%	7.35%	7.97%	8.94%	10.35%
\$100,000 OR MORE	4.17%	5.53%	5.80%	5.87%	5.96%	6.04%	6.13%	6.22%	6.31%	6.40%	6.87%	7.47%	8.38%	9.73%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 13 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-19

Demographic and Employment Baseline Projections for Economic Impact Area TX-2

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	474.95	548.56	571.70	579.63	587.87	596.61	602.86	609.11	615.29	621.49	654.09	687.93	723.40	761.46
AGE UNDER 19 YEARS	31.99%	30.90%	30.30%	29.92%	29.57%	29.24%	28.97%	28.77%	28.55%	28.32%	27.72%	27.70%	27.36%	27.07%
AGE 20 TO 34 YEARS	22.57%	18.42%	19.33%	19.72%	19.85%	19.92%	20.02%	20.16%	20.37%	20.61%	21.02%	19.66%	18.99%	18.65%
AGE 35 TO 49 YEARS	20.11%	23.61%	22.66%	22.28%	22.01%	21.69%	21.38%	20.91%	20.36%	19.82%	18.14%	18.91%	19.74%	20.41%
AGE 50 TO 64 YEARS	13.05%	14.69%	15.59%	15.99%	16.49%	17.06%	17.47%	17.95%	18.40%	18.86%	19.73%	18.81%	17.13%	15.85%
AGE 65 YEARS AND OVER	12.28%	12.37%	12.13%	12.10%	12.08%	12.09%	12.14%	12.21%	12.32%	12.38%	13.39%	14.92%	16.77%	18.03%
MEDIAN AGE OF POPULATION (YEARS)	34.76	37.62	37.69	37.79	37.99	38.21	38.35	38.49	38.61	38.68	38.84	39.34	40.22	41.25
WHITE POPULATION	67.28%	61.90%	59.98%	59.33%	58.84%	58.34%	57.82%	57.32%	56.83%	56.34%	53.88%	51.39%	48.93%	46.47%
BLACK POPULATION	9.05%	8.81%	8.97%	9.10%	9.11%	9.12%	9.13%	9.14%	9.15%	9.18%	9.27%	9.35%	9.43%	9.55%
NATIVE AMERICAN POPULATION	0.24%	0.32%	0.33%	0.34%	0.33%	0.34%	0.33%	0.33%	0.33%	0.33%	0.32%	0.30%	0.28%	0.26%
ASIAN AND PACIFIC ISLANDER POP	0.77%	1.46%	1.99%	2.17%	2.24%	2.32%	2.40%	2.48%	2.56%	2.64%	3.02%	3.38%	3.79%	4.35%
HISPANIC POPULATION	22.66%	27.52%	28.74%	29.07%	29.48%	29.87%	30.31%	30.73%	31.12%	31.51%	33.51%	35.59%	37.56%	39.37%
MALE POPULATION	50.01%	50.31%	50.37%	50.39%	50.40%	50.39%	50.40%	50.40%	50.40%	50.40%	50.38%	50.34%	50.22%	50.10%
TOTAL EMPLOYMENT (THOUSANDS)	237.42	277.18	279.60	284.41	289.19	294.37	299.12	303.86	308.58	313.30	336.81	360.13	383.25	406.15
FARM EMPLOYMENT	9.36%	8.80%	8.90%	8.81%	8.73%	8.64%	8.57%	8.49%	8.42%	8.35%	8.04%	7.78%	7.55%	7.36%
AGRICULTURAL SERVICES, OTHER MINING	1.88%	2.11%	2.28%	2.27%	2.25%	2.23%	2.22%	2.21%	2.19%	2.18%	2.13%	2.09%	2.05%	2.03%
CONSTRUCTION	3.47%	2.54%	2.34%	2.33%	2.33%	2.32%	2.31%	2.31%	2.30%	2.30%	2.28%	2.27%	2.26%	2.25%
MANUFACTURING	9.28%	9.57%	9.06%	9.07%	9.09%	9.11%	9.12%	9.13%	9.15%	9.16%	9.22%	9.28%	9.34%	9.40%
TRANSPORT, COMM. & PUBLIC UTIL	13.53%	11.99%	10.24%	10.21%	10.17%	10.14%	10.11%	10.08%	10.05%	10.03%	9.90%	9.80%	9.71%	9.64%
WHOLESALE TRADE	4.19%	4.06%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.17%	4.17%	4.18%	4.19%
RETAIL TRADE	3.44%	3.36%	3.24%	3.24%	3.24%	3.24%	3.23%	3.23%	3.23%	3.22%	3.21%	3.20%	3.19%	3.18%
FINANCE, INS. & REAL ESTATE SERVICES	15.23%	15.30%	15.66%	15.59%	15.53%	15.47%	15.41%	15.36%	15.31%	15.26%	15.05%	14.86%	14.69%	14.53%
FEDERAL CIVILIAN GOVT	5.01%	5.83%	6.21%	6.21%	6.22%	6.22%	6.22%	6.22%	6.22%	6.22%	6.23%	6.23%	6.24%	6.26%
FEDERAL MILITARY GOVT	21.20%	22.37%	23.65%	23.79%	23.93%	24.06%	24.18%	24.29%	24.40%	24.51%	24.98%	25.36%	25.67%	25.92%
STATE AND LOCAL GOVT	0.53%	0.56%	0.47%	0.47%	0.46%	0.45%	0.44%	0.44%	0.44%	0.43%	0.41%	0.39%	0.37%	0.35%
TOTAL EARNINGS (MILLIONS 1996 \$)	6,024.98	7,752.79	7,842.02	7,978.73	8,168.80	8,375.57	8,574.20	8,773.45	8,975.67	9,180.92	10,253.64	11,407.33	12,647.26	13,979.67
FARM EARNINGS	3.05%	3.02%	2.78%	2.75%	2.77%	2.79%	2.81%	2.83%	2.85%	2.88%	2.99%	3.10%	3.22%	3.34%
AGRICULTURAL SERVICES, OTHER MINING	0.99%	1.19%	1.10%	1.05%	1.04%	1.03%	1.03%	1.02%	1.01%	1.01%	0.98%	0.96%	0.95%	0.95%
CONSTRUCTION	4.71%	4.10%	4.02%	4.51%	4.47%	4.42%	4.38%	4.34%	4.30%	4.27%	4.09%	3.93%	3.78%	3.64%
MANUFACTURING	11.59%	10.98%	9.97%	10.40%	10.40%	10.39%	10.38%	10.36%	10.34%	10.32%	10.24%	10.17%	10.12%	10.07%
TRANSPORT, COMM. & PUBLIC UTIL	26.75%	23.49%	22.75%	22.46%	22.33%	22.23%	22.17%	22.12%	22.06%	21.99%	21.57%	20.99%	20.26%	19.40%
WHOLESALE TRADE	6.48%	6.89%	6.88%	6.47%	6.47%	6.47%	6.47%	6.46%	6.46%	6.46%	6.46%	6.47%	6.49%	6.53%
RETAIL TRADE	3.94%	4.43%	4.48%	3.98%	3.97%	3.96%	3.95%	3.94%	3.92%	3.91%	3.85%	3.80%	3.74%	3.69%
FINANCE, INS. & REAL ESTATE SERVICES	8.89%	9.06%	9.19%	9.16%	9.10%	9.05%	9.00%	8.96%	8.92%	8.88%	8.70%	8.54%	8.40%	8.28%
FEDERAL CIVILIAN GOVT	2.81%	4.11%	3.99%	4.11%	4.14%	4.17%	4.19%	4.21%	4.23%	4.25%	4.35%	4.44%	4.54%	4.63%
FEDERAL MILITARY GOVT	15.92%	17.77%	18.53%	18.83%	18.97%	19.11%	19.23%	19.35%	19.48%	19.61%	20.31%	21.09%	21.94%	22.87%
STATE AND LOCAL GOVT	0.99%	1.03%	0.93%	0.93%	0.92%	0.91%	0.90%	0.89%	0.87%	0.86%	0.81%	0.77%	0.73%	0.69%
PERSONAL INCOME (MILLIONS 1996 \$)	8,995.63	12,824.33	13,248.81	13,578.15	13,891.24	14,224.77	14,540.46	14,860.01	15,185.08	15,515.68	17,256.81	19,155.79	21,230.19	23,500.26
INCOME PER CAPITA (1996 \$)	18,940.13	23,378.22	23,174.25	23,425.51	23,629.62	23,842.55	24,119.17	24,396.39	24,679.54	24,965.45	26,382.76	27,845.47	29,347.63	30,862.27
W&P WEALTH INDEX (U.S. = 100)	82.36	80.00	80.02	79.21	79.30	79.44	79.56	79.69	79.82	79.94	80.48	80.91	81.23	81.43
PERSONS PER HOUSEHOLD (PEOPLE)	2.82	2.82	2.79	2.78	2.78	2.77	2.76	2.75	2.75	2.74	2.72	2.72	2.74	2.77
MEAN HOUSEHOLD INCOME (1996 \$)	46,968.25	56,902.33	56,386.33	56,113.83	56,732.50	57,188.92	57,812.83	58,451.67	59,122.58	59,803.83	63,432.08	67,669.08	72,469.42	77,850.25
NUMBER OF HOUSEHOLDS (THOUSANDS)	168.23	194.83	204.81	208.22	211.77	215.55	218.41	221.23	224.00	226.76	240.49	253.03	264.48	274.90
LESS THAN \$10,000 (2000 \$)	14.79%	10.45%	10.10%	9.93%	9.75%	9.61%	9.47%	9.33%	9.19%	9.06%	8.33%	7.50%	6.64%	5.80%
\$10,000 TO \$19,999	15.67%	14.02%	13.58%	13.37%	13.13%	12.94%	12.77%	12.59%	12.41%	12.23%	11.29%	10.22%	9.07%	7.95%
\$20,000 TO \$29,999	14.50%	13.93%	13.55%	13.34%	13.12%	12.94%	12.77%	12.60%	12.43%	12.26%	11.36%	10.33%	9.20%	8.09%
\$30,000 TO \$44,999	18.43%	17.72%	17.76%	17.62%	17.56%	17.50%	17.43%	17.35%	17.26%	17.16%	16.47%	15.25%	13.60%	11.94%
\$45,000 TO \$59,999	14.12%	13.59%	13.84%	13.96%	14.12%	14.24%	14.36%	14.48%	14.59%	14.70%	15.30%	15.99%	15.95%	14.99%
\$60,000 TO \$74,999	9.74%	10.45%	10.72%	10.90%	11.08%	11.22%	11.37%	11.52%	11.67%	11.83%	12.73%	13.94%	15.53%	17.00%
\$75,000 TO \$99,999	6.59%	10.11%	10.41%	10.62%	10.81%	10.96%	11.10%	11.26%	11.41%	11.57%	12.46%	13.61%	15.26%	17.41%
\$100,000 OR MORE	6.15%	9.73%	10.04%	10.25%	10.43%	10.58%	10.72%	10.87%	11.03%	11.18%	12.05%	13.16%	14.74%	16.82%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 12 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-20

## Demographic and Employment Baseline Projections for Economic Impact Area TX-3

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	4,078.98	5,026.48	5,340.67	5,437.10	5,533.80	5,665.75	5,739.75	5,813.67	5,886.89	5,960.20	6,341.43	6,733.60	7,141.18	7,574.15
AGE UNDER 19 YEARS	31.95%	31.56%	31.19%	30.91%	30.76%	30.59%	30.45%	30.31%	30.12%	29.92%	29.23%	29.09%	28.73%	28.29%
AGE 20 TO 34 YEARS	26.44%	22.56%	22.43%	22.39%	22.21%	22.03%	21.90%	21.86%	21.88%	21.95%	22.09%	21.37%	20.91%	20.50%
AGE 35 TO 49 YEARS	21.92%	23.91%	23.19%	22.99%	22.82%	22.62%	22.40%	22.09%	21.79%	21.46%	20.33%	20.18%	20.11%	20.53%
AGE 50 TO 64 YEARS	11.50%	13.54%	14.79%	15.29%	15.75%	16.25%	16.62%	16.99%	17.30%	17.63%	17.94%	17.39%	16.67%	16.12%
AGE 65 YEARS AND OVER	8.18%	8.43%	8.41%	8.43%	8.46%	8.51%	8.62%	8.75%	8.90%	9.04%	10.41%	11.98%	13.58%	14.56%
MEDIAN AGE OF POPULATION (YEARS)	33.65	35.89	35.87	35.93	36.11	36.31	36.47	36.61	36.75	36.84	37.09	37.95	38.94	39.57
WHITE POPULATION	59.17%	49.94%	47.75%	47.07%	46.43%	45.82%	45.21%	44.60%	44.01%	43.44%	40.70%	38.14%	35.78%	33.52%
BLACK POPULATION	18.43%	17.89%	17.61%	17.52%	17.40%	17.28%	17.16%	17.06%	16.96%	16.86%	16.33%	15.75%	15.16%	14.60%
NATIVE AMERICAN POPULATION	0.24%	0.29%	0.29%	0.29%	0.29%	0.29%	0.28%	0.28%	0.28%	0.26%	0.26%	0.24%	0.22%	0.20%
ASIAN AND PACIFIC ISLANDER POP	3.27%	4.95%	5.29%	5.38%	5.50%	5.61%	5.73%	5.84%	5.96%	6.08%	6.65%	7.21%	7.79%	8.47%
HISPANIC POPULATION	18.89%	26.93%	29.07%	29.73%	30.39%	31.00%	31.62%	32.21%	32.79%	33.34%	36.05%	38.65%	41.04%	43.21%
MALE POPULATION	49.55%	49.77%	49.88%	49.91%	49.92%	49.92%	49.92%	49.92%	49.91%	49.91%	49.86%	49.78%	49.67%	49.55%
TOTAL EMPLOYMENT (THOUSANDS)	2,322.69	3,001.89	3,064.36	3,125.52	3,186.72	3,272.69	3,333.08	3,393.48	3,453.88	3,514.28	3,816.31	4,118.50	4,421.00	4,723.95
FARM EMPLOYMENT	0.74%	0.67%	0.67%	0.66%	0.65%	0.64%	0.63%	0.63%	0.62%	0.61%	0.58%	0.56%	0.54%	0.52%
AGRICULTURAL SERVICES, OTHER	0.85%	1.05%	1.22%	1.21%	1.21%	1.21%	1.20%	1.20%	1.19%	1.19%	1.17%	1.15%	1.14%	1.13%
MINING	3.93%	2.79%	2.50%	2.50%	2.50%	2.50%	2.50%	2.49%	2.49%	2.49%	2.48%	2.47%	2.47%	2.46%
CONSTRUCTION	7.28%	8.77%	7.65%	7.64%	7.63%	7.61%	7.60%	7.59%	7.58%	7.57%	7.53%	7.49%	7.46%	7.43%
MANUFACTURING	9.63%	8.74%	7.55%	7.51%	7.47%	7.42%	7.38%	7.35%	7.31%	7.28%	7.12%	6.99%	6.87%	6.77%
TRANSPORT, COMM. & PUBLIC UTIL	6.10%	6.61%	6.07%	6.04%	6.02%	5.99%	5.97%	5.95%	5.93%	5.91%	5.82%	5.74%	5.67%	5.61%
WHOLESALE TRADE	5.79%	5.14%	4.95%	4.93%	4.90%	4.88%	4.85%	4.83%	4.81%	4.79%	4.69%	4.61%	4.54%	4.47%
RETAIL TRADE	15.74%	15.75%	15.98%	15.88%	15.78%	15.69%	15.60%	15.52%	15.43%	15.36%	14.99%	14.69%	14.43%	14.20%
FINANCE, INS. & REAL ESTATE SERVICES	7.90%	8.02%	8.41%	8.36%	8.30%	8.25%	8.20%	8.15%	8.11%	8.06%	7.86%	7.68%	7.53%	7.40%
FEDERAL CIVILIAN GOVT	30.09%	31.72%	32.99%	33.25%	33.49%	33.73%	33.96%	34.18%	34.39%	34.59%	35.51%	36.30%	36.98%	37.57%
FEDERAL MILITARY GOVT	1.26%	1.05%	0.99%	0.97%	0.96%	0.94%	0.93%	0.91%	0.90%	0.89%	0.83%	0.78%	0.73%	0.69%
STATE AND LOCAL GOVT	0.71%	0.48%	0.49%	0.48%	0.47%	0.46%	0.45%	0.44%	0.43%	0.43%	0.39%	0.36%	0.33%	0.31%
TOTAL EARNINGS (MILLIONS 1996 \$)	80,160.94	137,122.30	142,073.44	145,544.54	149,249.32	154,182.98	157,992.23	161,814.77	165,710.53	169,680.92	190,707.52	213,855.46	239,367.52	267,521.65
FARM EARNINGS	0.10%	0.07%	0.09%	0.07%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.08%	0.09%	0.09%
AGRICULTURAL SERVICES, OTHER	0.40%	0.43%	0.39%	0.39%	0.39%	0.39%	0.39%	0.38%	0.38%	0.38%	0.38%	0.37%	0.37%	0.37%
MINING	8.36%	9.19%	8.85%	8.25%	8.19%	8.14%	8.08%	8.03%	7.97%	7.92%	7.64%	7.36%	7.08%	6.80%
CONSTRUCTION	8.04%	7.39%	7.55%	7.80%	7.78%	7.76%	7.73%	7.70%	7.67%	7.64%	7.51%	7.38%	7.26%	7.14%
MANUFACTURING	13.94%	12.65%	12.06%	12.03%	11.95%	11.88%	11.84%	11.80%	11.76%	11.72%	11.44%	11.07%	10.60%	10.05%
TRANSPORT, COMM. & PUBLIC UTIL	8.52%	11.17%	9.74%	9.75%	9.70%	9.66%	9.62%	9.57%	9.53%	9.49%	9.30%	9.15%	9.01%	8.89%
WHOLESALE TRADE	7.76%	6.70%	6.75%	6.76%	6.71%	6.67%	6.62%	6.58%	6.53%	6.49%	6.28%	6.08%	5.89%	5.71%
RETAIL TRADE	7.97%	7.14%	7.42%	7.38%	7.32%	7.26%	7.21%	7.16%	7.12%	7.07%	6.85%	6.66%	6.47%	6.30%
FINANCE, INS. & REAL ESTATE SERVICES	6.00%	8.58%	8.53%	8.54%	8.55%	8.56%	8.56%	8.56%	8.56%	8.55%	8.55%	8.55%	8.54%	8.54%
FEDERAL CIVILIAN GOVT	27.55%	27.05%	27.96%	28.30%	28.58%	28.86%	29.12%	29.38%	29.64%	29.90%	31.24%	32.64%	34.08%	35.59%
FEDERAL MILITARY GOVT	2.11%	1.62%	1.65%	1.64%	1.62%	1.60%	1.57%	1.55%	1.53%	1.51%	1.40%	1.31%	1.22%	1.14%
STATE AND LOCAL GOVT	0.31%	0.20%	0.34%	0.35%	0.35%	0.34%	0.34%	0.33%	0.33%	0.33%	0.30%	0.28%	0.27%	0.25%
PERSONAL INCOME (MILLIONS 1996 \$)	94,506.37	156,414.50	161,050.64	165,653.03	169,957.41	175,534.53	179,817.54	184,140.03	188,550.84	193,051.87	216,999.79	243,614.11	273,297.21	306,525.84
INCOME PER CAPITA (1996 \$)	23,169.09	31,118.12	30,155.54	30,467.14	30,712.62	30,981.69	31,328.47	31,673.63	32,028.94	32,390.19	34,219.40	36,178.90	38,270.57	40,470.00
W&P WEALTH INDEX (U.S. = 100)	81.93	85.39	85.03	83.88	83.76	83.68	83.59	83.51	83.44	83.36	83.01	82.68	82.36	82.05
PERSONS PER HOUSEHOLD (PEOPLE)	2.77	2.83	2.80	2.80	2.79	2.79	2.78	2.78	2.78	2.77	2.77	2.78	2.81	2.85
MEAN HOUSEHOLD INCOME (1996 \$)	48,808.35	63,242.82	62,440.29	61,850.00	62,292.12	62,536.76	62,973.88	63,426.65	63,910.65	64,415.41	67,195.59	70,665.71	74,755.47	79,475.18
NUMBER OF HOUSEHOLDS (THOUSANDS)	1,474.97	1,778.31	1,905.39	1,943.34	1,981.51	2,032.65	2,062.50	2,091.98	2,120.91	2,149.65	2,291.76	2,421.82	2,541.98	2,653.25
LESS THAN \$10,000 (2000 \$)	12.08%	9.39%	9.19%	9.07%	8.94%	8.82%	8.72%	8.62%	8.46%	8.31%	7.56%	6.80%	6.11%	5.46%
\$10,000 TO \$19,999	13.54%	11.84%	11.61%	11.47%	11.31%	11.16%	11.03%	10.91%	10.72%	10.53%	9.60%	8.64%	7.78%	6.96%
\$20,000 TO \$29,999	13.94%	12.87%	12.66%	12.51%	12.35%	12.19%	12.06%	11.92%	11.71%	11.51%	10.49%	9.45%	8.51%	7.63%
\$30,000 TO \$44,999	18.41%	17.72%	17.62%	17.47%	17.30%	17.13%	16.97%	16.82%	16.56%	16.30%	14.97%	13.56%	12.27%	11.02%
\$45,000 TO \$59,999	14.15%	13.21%	13.42%	13.52%	13.66%	13.80%	13.90%	14.00%	14.16%	14.29%	14.56%	14.12%	13.10%	12.00%
\$60,000 TO \$74,999	9.66%	10.12%	10.26%	10.37%	10.49%	10.61%	10.72%	10.83%	11.00%	11.19%	12.16%	13.28%	14.31%	14.76%
\$75,000 TO \$99,999	7.70%	10.58%	10.74%	10.88%	11.03%	11.17%	11.29%	11.42%	11.62%	11.83%	12.98%	14.43%	15.98%	17.68%
\$100,000 OR MORE	10.51%	14.26%	14.50%	14.71%	14.92%	15.12%	15.30%	15.48%	15.76%	16.05%	17.68%	19.72%	21.94%	24.49%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 12 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-21

Demographic and Employment Baseline Projections for Economic Impact Area LA-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	321.59	335.84	334.17	334.24	334.83	339.74	340.82	341.91	342.96	344.03	350.31	357.30	365.15	374.25
AGE UNDER 19 YEARS	32.35%	30.79%	29.95%	29.60%	29.39%	29.23%	29.16%	29.11%	28.96%	28.87%	28.69%	28.95%	28.81%	28.63%
AGE 20 TO 34 YEARS	26.04%	21.34%	21.31%	21.25%	21.22%	21.16%	21.08%	21.03%	21.06%	21.07%	20.77%	19.64%	19.45%	19.43%
AGE 35 TO 49 YEARS	18.85%	22.15%	21.68%	21.52%	21.31%	21.07%	20.79%	20.44%	20.07%	19.66%	18.34%	18.46%	18.46%	18.38%
AGE 50 TO 64 YEARS	12.61%	14.35%	15.37%	15.85%	16.25%	16.69%	17.09%	17.45%	17.85%	18.29%	19.22%	18.74%	17.44%	16.45%
AGE 65 YEARS AND OVER	10.15%	11.36%	11.69%	11.78%	11.83%	11.85%	11.89%	11.97%	12.06%	12.11%	12.98%	14.21%	15.83%	17.11%
MEDIAN AGE OF POPULATION (YEARS)	30.63	33.79	34.45	34.69	34.92	35.11	35.27	35.37	35.42	35.40	35.56	36.46	37.26	37.86
WHITE POPULATION	76.23%	75.24%	74.88%	74.90%	74.79%	74.64%	74.51%	74.38%	74.23%	74.10%	73.54%	73.03%	72.44%	71.75%
BLACK POPULATION	20.58%	20.88%	21.03%	20.95%	21.02%	21.11%	21.19%	21.26%	21.34%	21.43%	21.75%	22.03%	22.41%	22.86%
NATIVE AMERICAN POPULATION	0.39%	0.66%	0.64%	0.65%	0.65%	0.66%	0.66%	0.67%	0.68%	0.68%	0.69%	0.70%	0.71%	0.71%
ASIAN AND PACIFIC ISLANDER POP	0.71%	0.85%	0.90%	0.91%	0.93%	0.95%	0.97%	0.99%	1.02%	1.04%	1.14%	1.23%	1.32%	1.43%
HISPANIC POPULATION	2.09%	2.36%	2.55%	2.58%	2.61%	2.64%	2.67%	2.70%	2.73%	2.74%	2.88%	3.01%	3.12%	3.24%
MALE POPULATION	50.09%	49.89%	50.12%	50.18%	50.18%	50.20%	50.20%	50.21%	50.21%	50.22%	50.23%	50.17%	50.16%	50.10%
TOTAL EMPLOYMENT (THOUSANDS)	146.25	170.33	170.71	172.93	175.16	179.08	181.26	183.44	185.63	187.84	198.94	210.23	221.75	233.49
FARM EMPLOYMENT	3.26%	2.49%	2.29%	2.25%	2.21%	2.14%	2.10%	2.07%	2.03%	2.00%	1.84%	1.70%	1.57%	1.46%
AGRICULTURAL SERVICES, OTHER	1.05%	1.36%	1.44%	1.45%	1.46%	1.43%	1.44%	1.45%	1.46%	1.46%	1.50%	1.53%	1.56%	1.59%
MINING	2.20%	1.23%	0.93%	0.92%	0.92%	0.91%	0.90%	0.90%	0.90%	0.90%	0.89%	0.87%	0.86%	0.85%
CONSTRUCTION	6.80%	9.05%	7.91%	7.93%	7.94%	7.98%	7.99%	8.00%	8.02%	8.03%	8.09%	8.13%	8.16%	8.18%
MANUFACTURING	10.84%	8.84%	7.33%	7.28%	7.22%	7.18%	7.12%	7.07%	7.02%	6.96%	6.72%	6.49%	6.28%	6.08%
TRANSPORT, COMM. & PUBLIC UTIL	5.38%	4.86%	4.81%	4.78%	4.74%	4.74%	4.64%	4.61%	4.57%	4.54%	4.40%	4.28%	4.17%	4.06%
WHOLESALE TRADE	3.16%	3.03%	2.99%	2.96%	2.94%	2.92%	2.90%	2.88%	2.86%	2.84%	2.75%	2.67%	2.60%	2.53%
RETAIL TRADE	15.27%	16.04%	17.93%	17.88%	17.84%	17.85%	17.80%	17.76%	17.72%	17.67%	17.47%	17.28%	17.10%	16.93%
FINANCE, INS. & REAL ESTATE	4.14%	4.58%	4.98%	4.98%	4.98%	4.99%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	4.98%
SERVICES	20.79%	25.77%	26.50%	26.74%	26.98%	27.27%	27.50%	27.73%	27.95%	28.17%	29.22%	30.19%	31.11%	31.97%
FEDERAL CIVILIAN GOVT	3.09%	2.57%	2.21%	2.18%	2.15%	2.11%	2.08%	2.05%	2.01%	1.98%	1.83%	1.70%	1.58%	1.47%
FEDERAL MILITARY GOVT	11.90%	5.96%	6.46%	6.38%	6.31%	6.24%	6.17%	6.10%	6.03%	5.96%	5.65%	5.37%	5.11%	4.87%
STATE AND LOCAL GOVT	12.12%	14.21%	14.23%	14.27%	14.31%	14.32%	14.36%	14.40%	14.43%	14.47%	14.64%	14.79%	14.92%	15.04%
TOTAL EARNINGS (MILLIONS 1996 \$)	3,991.94	4,777.57	5,296.74	5,513.77	5,609.80	5,769.25	5,868.41	5,967.72	6,068.83	6,171.81	6,716.06	7,313.71	7,971.34	8,696.76
FARM EARNINGS	0.59%	0.31%	0.22%	0.35%	0.35%	0.34%	0.34%	0.34%	0.33%	0.33%	0.31%	0.29%	0.27%	0.25%
AGRICULTURAL SERVICES, OTHER	0.53%	0.60%	0.46%	0.51%	0.51%	0.51%	0.51%	0.52%	0.52%	0.52%	0.54%	0.56%	0.57%	0.59%
MINING	3.30%	2.49%	1.66%	2.21%	2.19%	2.14%	2.12%	2.10%	2.08%	2.06%	1.97%	1.88%	1.79%	1.71%
CONSTRUCTION	6.99%	9.95%	8.14%	8.26%	8.27%	8.30%	8.30%	8.30%	8.30%	8.30%	8.29%	8.28%	8.27%	8.24%
MANUFACTURING	19.52%	18.39%	18.79%	18.73%	18.57%	18.48%	18.38%	18.29%	18.19%	18.09%	17.48%	16.72%	15.85%	14.87%
TRANSPORT, COMM. & PUBLIC UTIL	7.22%	6.80%	6.94%	6.74%	6.70%	6.61%	6.56%	6.52%	6.47%	6.43%	6.25%	6.10%	5.96%	5.85%
WHOLESALE TRADE	3.52%	3.44%	3.50%	3.46%	3.43%	3.40%	3.37%	3.34%	3.31%	3.29%	3.16%	3.05%	2.94%	2.84%
RETAIL TRADE	7.79%	8.02%	8.84%	8.62%	8.60%	8.59%	8.57%	8.56%	8.54%	8.52%	8.44%	8.36%	8.29%	8.21%
FINANCE, INS. & REAL ESTATE	2.82%	3.26%	3.07%	3.02%	3.05%	3.07%	3.09%	3.11%	3.13%	3.14%	3.23%	3.30%	3.36%	3.41%
SERVICES	16.82%	19.51%	20.68%	20.46%	20.72%	21.04%	21.29%	21.55%	21.81%	22.07%	23.48%	25.03%	26.70%	28.50%
FEDERAL CIVILIAN GOVT	4.76%	4.92%	4.40%	4.43%	4.40%	4.34%	4.29%	4.24%	4.19%	4.13%	3.88%	3.63%	3.40%	3.18%
FEDERAL MILITARY GOVT	15.40%	9.07%	10.14%	10.28%	10.22%	10.16%	10.10%	10.04%	9.99%	9.93%	9.62%	9.28%	8.91%	8.52%
STATE AND LOCAL GOVT	10.75%	13.25%	13.15%	12.93%	13.00%	13.02%	13.07%	13.10%	13.14%	13.18%	13.36%	13.53%	13.68%	13.82%
PERSONAL INCOME (MILLIONS 1996 \$)	5,274.63	6,466.44	7,150.67	7,348.35	7,462.54	7,658.37	7,778.24	7,899.57	8,023.38	8,149.72	8,821.23	9,565.41	10,391.76	11,311.42
INCOME PER CAPITA (1996 \$)	16,401.63	19,254.40	21,398.30	21,985.44	22,287.81	22,541.79	22,822.13	23,104.51	23,394.59	23,689.12	25,180.99	26,771.08	28,459.10	30,224.63
W&P WEALTH INDEX (U.S. = 100)	69.60	65.98	70.46	71.07	71.32	71.45	71.56	71.66	71.76	71.86	72.29	72.63	72.88	73.04
PERSONS PER HOUSEHOLD (PEOPLE)	2.90	2.74	2.72	2.71	2.70	2.69	2.69	2.68	2.67	2.66	2.64	2.63	2.65	2.68
MEAN HOUSEHOLD INCOME (1996 \$)	42,255.83	46,835.00	50,833.50	51,801.67	52,484.33	52,879.50	53,422.50	53,973.33	54,545.17	55,130.83	58,235.17	61,870.83	66,015.00	70,676.83
NUMBER OF HOUSEHOLDS (THOUSANDS)	111.08	122.40	122.77	123.23	123.86	126.12	126.89	127.65	128.37	129.10	132.68	135.61	137.96	139.82
LESS THAN \$10,000 (2000 \$)	18.21%	13.74%	12.78%	12.47%	12.26%	12.08%	11.91%	11.74%	11.58%	11.41%	10.60%	9.49%	8.31%	7.08%
\$10,000 TO \$19,999	19.26%	16.79%	15.61%	15.23%	14.98%	14.75%	14.55%	14.34%	14.14%	13.94%	12.95%	11.61%	10.18%	8.68%
\$20,000 TO \$29,999	16.75%	14.90%	13.79%	13.42%	13.18%	12.97%	12.79%	12.61%	12.43%	12.25%	11.38%	10.21%	8.99%	7.66%
\$30,000 TO \$44,999	18.06%	19.05%	19.49%	19.49%	19.49%	19.47%	19.45%	19.42%	19.36%	19.29%	18.64%	17.15%	15.23%	12.97%
\$45,000 TO \$59,999	12.55%	13.22%	14.27%	14.67%	14.93%	15.15%	15.37%	15.59%	15.82%	16.06%	17.30%	18.91%	20.00%	19.68%
\$60,000 TO \$74,999	7.06%	8.44%	9.11%	9.36%	9.52%	9.66%	9.80%	9.94%	10.09%	10.24%	11.04%	12.36%	14.13%	16.64%
\$75,000 TO \$99,999	4.14%	7.75%	8.36%	8.60%	8.75%	8.89%	9.02%	9.14%	9.28%	9.41%	10.12%	11.35%	12.97%	15.29%
\$100,000 OR MORE	3.97%	6.11%	6.59%	6.77%	6.89%	7.01%	7.11%	7.20%	7.31%	7.41%	7.96%	8.92%	10.21%	12.01%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 12 parishes in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-22

## Demographic and Employment Baseline Projections for Economic Impact Area LA-2

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	496.88	548.34	555.40	558.25	562.44	580.30	583.19	586.09	588.93	591.80	607.67	624.70	643.20	663.91
AGE UNDER 19 YEARS	33.50%	31.90%	30.49%	30.00%	29.68%	29.36%	29.14%	28.96%	28.76%	28.59%	28.34%	28.54%	28.46%	28.23%
AGE 20 TO 34 YEARS	24.46%	20.22%	20.88%	21.06%	21.17%	21.26%	21.39%	21.54%	21.69%	21.82%	21.13%	19.34%	18.61%	18.53%
AGE 35 TO 49 YEARS	18.89%	22.59%	22.19%	21.96%	21.61%	21.27%	20.80%	20.28%	19.78%	19.29%	18.26%	19.17%	19.92%	19.50%
AGE 50 TO 64 YEARS	12.54%	13.94%	15.00%	15.49%	16.00%	16.56%	17.05%	17.54%	17.99%	18.47%	19.49%	18.74%	16.89%	16.22%
AGE 65 YEARS AND OVER	10.62%	11.34%	11.44%	11.48%	11.53%	11.55%	11.63%	11.69%	11.78%	11.84%	12.77%	14.21%	16.11%	17.51%
MEDIAN AGE OF POPULATION (YEARS)	30.65	33.77	34.22	34.43	34.57	34.73	34.81	34.85	34.87	34.88	35.51	36.86	37.81	38.40
WHITE POPULATION	71.84%	70.08%	69.54%	69.33%	69.20%	69.07%	68.94%	68.80%	68.65%	68.51%	67.81%	67.17%	66.52%	65.81%
BLACK POPULATION	26.00%	27.35%	27.62%	27.71%	27.80%	27.90%	27.98%	28.08%	28.18%	28.27%	28.75%	29.18%	29.63%	30.14%
NATIVE AMERICAN POPULATION	0.15%	0.25%	0.26%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.27%	0.26%
ASIAN AND PACIFIC ISLANDER POP	0.73%	1.00%	1.10%	1.15%	1.17%	1.20%	1.23%	1.26%	1.29%	1.32%	1.47%	1.60%	1.75%	1.92%
HISPANIC POPULATION	1.28%	1.32%	1.47%	1.54%	1.55%	1.56%	1.58%	1.60%	1.62%	1.63%	1.70%	1.77%	1.83%	1.87%
MALE POPULATION	48.16%	48.48%	48.66%	48.70%	48.73%	48.77%	48.80%	48.82%	48.84%	48.86%	48.96%	49.02%	49.00%	48.92%
TOTAL EMPLOYMENT (THOUSANDS)	224.02	277.69	286.22	290.62	295.02	307.30	311.44	315.57	319.69	323.81	344.32	364.70	385.00	405.22
FARM EMPLOYMENT	3.61%	2.58%	2.25%	2.22%	2.18%	2.12%	2.09%	2.06%	2.03%	2.00%	1.85%	1.73%	1.62%	1.52%
AGRICULTURAL SERVICES, OTHER	1.13%	1.28%	1.44%	1.45%	1.46%	1.46%	1.46%	1.47%	1.48%	1.49%	1.52%	1.54%	1.57%	1.59%
MINING	9.11%	7.47%	6.90%	6.96%	7.02%	7.10%	7.15%	7.21%	7.27%	7.32%	7.56%	7.78%	7.97%	8.14%
CONSTRUCTION	4.63%	6.53%	6.11%	6.05%	6.00%	5.94%	5.89%	5.84%	5.79%	5.74%	5.52%	5.33%	5.16%	5.00%
MANUFACTURING	9.49%	7.78%	6.69%	6.69%	6.69%	6.68%	6.67%	6.67%	6.67%	6.67%	6.67%	6.66%	6.66%	6.66%
TRANSPORT, COMM. & PUBLIC UTIL	5.49%	5.21%	5.01%	5.00%	5.00%	5.00%	5.00%	5.00%	4.99%	4.99%	4.98%	4.97%	4.96%	4.96%
WHOLESALE TRADE	4.88%	4.61%	4.64%	4.63%	4.61%	4.60%	4.58%	4.57%	4.55%	4.53%	4.47%	4.40%	4.35%	4.30%
RETAIL TRADE	16.39%	17.74%	18.29%	18.24%	18.19%	18.16%	18.11%	18.06%	18.02%	17.98%	17.77%	17.59%	17.44%	17.30%
FINANCE, INS. & REAL ESTATE	4.76%	5.21%	5.44%	5.39%	5.33%	5.28%	5.23%	5.18%	5.13%	5.08%	4.86%	4.67%	4.50%	4.35%
SERVICES	25.86%	28.38%	30.62%	30.79%	30.96%	31.16%	31.31%	31.46%	31.61%	31.76%	32.41%	32.99%	33.50%	33.95%
FEDERAL CIVILIAN GOV'T	0.77%	0.72%	0.61%	0.61%	0.60%	0.60%	0.59%	0.59%	0.59%	0.58%	0.56%	0.55%	0.53%	0.52%
FEDERAL MILITARY GOV'T	1.35%	1.00%	0.99%	0.98%	0.96%	0.95%	0.93%	0.92%	0.91%	0.90%	0.85%	0.80%	0.76%	0.72%
STATE AND LOCAL GOV'T	12.52%	11.47%	10.99%	10.99%	10.99%	10.96%	10.97%	10.97%	10.97%	10.97%	10.98%	10.99%	10.99%	11.00%
TOTAL EARNINGS (MILLIONS 1996 \$)	5,516.49	7,661.87	8,352.08	8,616.96	8,803.78	9,240.52	9,427.09	9,613.63	9,803.36	9,996.30	11,010.81	12,114.38	13,315.49	14,624.15
FARM EARNINGS	1.06%	1.03%	0.74%	0.82%	0.82%	0.82%	0.82%	0.82%	0.82%	0.82%	0.83%	0.83%	0.84%	0.84%
AGRICULTURAL SERVICES, OTHER	0.87%	0.59%	0.56%	0.53%	0.54%	0.54%	0.54%	0.54%	0.54%	0.55%	0.56%	0.57%	0.58%	0.59%
MINING	16.36%	16.09%	15.82%	16.71%	16.73%	16.76%	16.76%	16.76%	16.75%	16.75%	16.64%	16.45%	16.19%	15.88%
CONSTRUCTION	4.57%	6.43%	6.00%	6.03%	5.96%	5.89%	5.83%	5.76%	5.69%	5.63%	5.35%	5.10%	4.89%	4.70%
MANUFACTURING	11.16%	10.74%	10.10%	9.89%	9.88%	9.87%	9.90%	9.93%	9.96%	9.98%	10.01%	9.91%	9.70%	9.38%
TRANSPORT, COMM. & PUBLIC UTIL	7.38%	7.17%	6.69%	6.88%	6.87%	6.86%	6.85%	6.84%	6.83%	6.82%	6.77%	6.74%	6.71%	6.70%
WHOLESALE TRADE	5.99%	5.70%	5.65%	5.55%	5.52%	5.49%	5.46%	5.42%	5.39%	5.36%	5.20%	5.05%	4.92%	4.79%
RETAIL TRADE	9.62%	9.92%	10.53%	10.37%	10.30%	10.23%	10.18%	10.13%	10.07%	10.02%	9.79%	9.57%	9.37%	9.19%
FINANCE, INS. & REAL ESTATE	3.38%	4.15%	4.08%	4.01%	4.00%	3.98%	3.96%	3.93%	3.91%	3.89%	3.78%	3.69%	3.61%	3.53%
SERVICES	25.04%	24.71%	25.97%	25.92%	26.11%	26.35%	26.53%	26.71%	26.90%	27.09%	28.11%	29.25%	30.48%	31.82%
FEDERAL CIVILIAN GOV'T	1.53%	1.45%	1.29%	1.28%	1.27%	1.27%	1.26%	1.25%	1.25%	1.24%	1.20%	1.16%	1.13%	1.09%
FEDERAL MILITARY GOV'T	0.65%	0.53%	0.98%	0.51%	0.50%	0.50%	0.49%	0.49%	0.49%	0.48%	0.46%	0.44%	0.43%	0.41%
STATE AND LOCAL GOV'T	12.59%	11.50%	11.60%	11.49%	11.49%	11.45%	11.44%	11.42%	11.40%	11.39%	11.31%	11.23%	11.16%	11.10%
PERSONAL INCOME (MILLIONS 1996 \$)	7,879.26	10,950.32	11,782.45	12,087.79	12,321.09	12,858.54	13,083.04	13,310.07	13,541.45	13,777.36	15,027.56	16,405.99	17,927.96	19,611.90
INCOME PER CAPITA (1996 \$)	15,857.52	19,969.80	21,214.19	21,652.90	21,906.65	22,158.58	22,433.58	22,709.90	22,993.23	23,280.60	24,729.97	26,262.06	27,873.11	29,539.86
W&P WEALTH INDEX (U.S. = 100)	67.30	67.64	71.85	72.24	72.20	72.25	72.28	72.32	72.35	72.38	72.52	72.60	72.64	72.62
PERSONS PER HOUSEHOLD (PEOPLE)	2.84	2.72	2.70	2.69	2.68	2.67	2.67	2.66	2.65	2.65	2.62	2.62	2.63	2.66
MEAN HOUSEHOLD INCOME (1996 \$)	41,215.57	48,684.43	51,867.43	52,716.14	53,168.43	53,512.71	54,010.86	54,521.86	55,057.29	55,607.43	58,550.14	62,056.86	66,090.43	70,687.57
NUMBER OF HOUSEHOLDS (THOUSANDS)	174.79	201.47	205.72	207.45	209.65	217.04	218.74	220.40	222.01	223.61	231.50	238.29	244.17	249.23
LESS THAN \$10,000 (2000 \$)	23.20%	18.15%	17.10%	16.75%	16.52%	16.25%	16.02%	15.78%	15.55%	15.32%	14.19%	12.90%	11.42%	10.00%
\$10,000 TO \$19,999	19.96%	17.27%	16.31%	15.97%	15.74%	15.52%	15.30%	15.09%	14.88%	14.67%	13.63%	12.41%	11.00%	9.63%
\$20,000 TO \$29,999	15.03%	14.23%	13.72%	13.46%	13.32%	13.18%	13.05%	12.90%	12.76%	12.60%	11.78%	10.74%	9.51%	8.33%
\$30,000 TO \$44,999	16.95%	17.39%	17.98%	18.11%	18.20%	18.28%	18.35%	18.42%	18.48%	18.52%	18.56%	18.04%	16.73%	15.09%
\$45,000 TO \$59,999	11.30%	12.34%	13.07%	13.37%	13.56%	13.75%	13.94%	14.13%	14.33%	14.53%	15.63%	17.00%	18.43%	18.92%
\$60,000 TO \$74,999	5.69%	7.97%	8.44%	8.64%	8.76%	8.89%	9.01%	9.14%	9.27%	9.40%	10.11%	11.14%	12.66%	14.60%
\$75,000 TO \$99,999	3.61%	6.51%	6.88%	7.05%	7.15%	7.26%	7.36%	7.47%	7.57%	7.68%	8.27%	9.11%	10.37%	11.97%
\$100,000 OR MORE	4.26%	6.15%	6.50%	6.66%	6.76%	6.87%	6.97%	7.07%	7.17%	7.28%	7.84%	8.66%	9.89%	11.46%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 7 parishes in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-23

Demographic and Employment Baseline Projections for Economic Impact Area LA-3

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	910.13	1009.62	1028.56	1037.30	1045.93	1149.95	1156.01	1162.08	1168.03	1174.01	1206.74	1241.59	1279.24	1321.31
AGE UNDER 19 YEARS	32.83%	31.32%	29.71%	29.25%	29.01%	28.77%	28.63%	28.56%	28.43%	28.32%	28.09%	28.44%	28.40%	28.26%
AGE 20 TO 34 YEARS	25.91%	22.07%	22.76%	22.86%	22.85%	22.81%	22.81%	22.77%	22.75%	22.69%	21.51%	20.04%	19.62%	19.61%
AGE 35 TO 49 YEARS	20.25%	22.54%	22.00%	21.83%	21.54%	21.19%	20.87%	20.50%	20.21%	19.90%	19.51%	19.80%	19.92%	19.15%
AGE 50 TO 64 YEARS	11.77%	14.14%	15.44%	15.93%	16.42%	16.95%	17.31%	17.66%	17.96%	18.33%	18.80%	18.07%	16.89%	16.81%
AGE 65 YEARS AND OVER	9.24%	9.92%	10.09%	10.13%	10.18%	10.27%	10.38%	10.51%	10.64%	10.76%	12.09%	13.64%	15.18%	16.16%
MEDIAN AGE OF POPULATION (YEARS)	30.09	33.31	34.03	34.25	34.46	34.72	34.87	35.03	35.19	35.33	36.06	37.11	37.89	38.32
WHITE POPULATION	69.51%	66.94%	66.17%	65.87%	65.59%	63.26%	63.08%	62.89%	62.70%	62.51%	61.63%	60.74%	59.80%	58.69%
BLACK POPULATION	27.19%	29.13%	29.54%	29.71%	29.93%	32.24%	32.35%	32.46%	32.58%	32.70%	33.24%	33.81%	34.44%	35.24%
NATIVE AMERICAN POPULATION	0.95%	1.03%	1.04%	1.05%	1.05%	0.93%	0.94%	0.95%	0.96%	0.97%	1.03%	1.08%	1.14%	1.20%
ASIAN AND PACIFIC ISLANDER POP	0.91%	1.23%	1.30%	1.33%	1.36%	1.43%	1.46%	1.49%	1.52%	1.54%	1.67%	1.79%	1.91%	2.03%
HISPANIC POPULATION	1.45%	1.67%	1.95%	2.04%	2.08%	2.14%	2.17%	2.21%	2.24%	2.27%	2.43%	2.58%	2.71%	2.84%
MALE POPULATION	48.43%	48.55%	48.65%	48.67%	48.68%	48.63%	48.66%	48.68%	48.70%	48.73%	48.83%	48.88%	48.89%	48.91%
TOTAL EMPLOYMENT (THOUSANDS)	445.22	575.08	589.84	598.32	606.81	668.71	675.32	681.90	688.47	695.02	727.31	759.12	790.49	821.58
FARM EMPLOYMENT	1.39%	0.95%	0.82%	0.80%	0.78%	0.77%	0.76%	0.74%	0.72%	0.71%	0.64%	0.58%	0.52%	0.47%
AGRICULTURAL SERVICES, OTHER	1.26%	1.51%	1.80%	1.81%	1.82%	1.82%	1.83%	1.84%	1.85%	1.89%	1.89%	1.93%	1.96%	1.98%
MINING	2.49%	2.00%	1.72%	1.72%	1.72%	1.70%	1.71%	1.71%	1.71%	1.71%	1.73%	1.74%	1.75%	1.76%
CONSTRUCTION	9.06%	9.74%	9.22%	9.19%	9.16%	9.11%	9.08%	9.05%	9.03%	9.00%	8.89%	8.79%	8.71%	8.63%
MANUFACTURING	9.42%	7.87%	7.21%	7.14%	7.07%	6.97%	6.90%	6.84%	6.77%	6.71%	6.43%	6.17%	5.95%	5.74%
TRANSPORT, COMM. & PUBLIC UTIL	5.81%	6.05%	6.29%	6.29%	6.29%	6.24%	6.24%	6.25%	6.25%	6.25%	6.25%	6.26%	6.26%	6.26%
WHOLESALE TRADE	4.40%	4.37%	4.22%	4.17%	4.13%	4.10%	4.06%	4.02%	3.98%	3.95%	3.78%	3.63%	3.49%	3.37%
RETAIL TRADE	16.49%	17.32%	17.13%	17.06%	16.99%	16.95%	16.89%	16.82%	16.76%	16.70%	16.42%	16.17%	15.95%	15.75%
FINANCE, INS. & REAL ESTATE	5.91%	6.05%	6.33%	6.30%	6.27%	6.24%	6.21%	6.18%	6.15%	6.12%	5.99%	5.88%	5.78%	5.69%
SERVICES	24.27%	26.48%	27.80%	28.10%	28.39%	28.70%	28.98%	29.25%	29.51%	29.76%	30.94%	31.98%	32.91%	33.74%
FEDERAL CIVILIAN GOVT	0.91%	0.72%	0.58%	0.57%	0.57%	0.56%	0.55%	0.55%	0.54%	0.53%	0.50%	0.48%	0.46%	0.44%
FEDERAL MILITARY GOVT	1.28%	0.92%	0.94%	0.92%	0.91%	0.90%	0.89%	0.87%	0.86%	0.85%	0.80%	0.75%	0.71%	0.67%
STATE AND LOCAL GOVT	17.30%	16.02%	15.94%	15.92%	15.90%	15.94%	15.91%	15.89%	15.87%	15.84%	15.74%	15.64%	15.56%	15.48%
TOTAL EARNINGS (MILLIONS 1996 \$)	12,197.17	16,892.28	18,553.98	18,900.63	19,263.84	21,324.72	21,653.61	21,980.36	22,313.50	22,652.85	24,444.47	26,410.24	28,569.74	30,947.11
FARM EARNINGS	0.40	0.38	0.29	0.26	0.26	0.27	0.27	0.27	0.27	0.27	0.26	0.26	0.26	0.25
AGRICULTURAL SERVICES, OTHER	0.52	0.61	0.55	0.56	0.57	0.57	0.58	0.58	0.58	0.59	0.61	0.63	0.64	0.66
MINING	4.12	3.83	3.44	3.85	3.83	3.75	3.74	3.72	3.71	3.70	3.62	3.54	3.44	3.34
CONSTRUCTION	10.78	11.49	10.69	11.02	10.98	10.92	10.88	10.83	10.79	10.74	10.53	10.34	10.17	10.00
MANUFACTURING	17.47	14.68	15.29	14.87	14.69	14.47	14.35	14.24	14.12	14.00	13.34	12.60	11.80	10.94
TRANSPORT, COMM. & PUBLIC UTIL	7.56	8.41	8.39	8.23	8.24	8.19	8.19	8.20	8.20	8.21	8.24	8.26	8.29	8.31
WHOLESALE TRADE	5.45	5.61	5.60	5.49	5.42	5.38	5.32	5.26	5.20	5.15	4.88	4.64	4.41	4.20
RETAIL TRADE	8.97	9.34	9.48	9.44	9.38	9.36	9.32	9.27	9.23	9.18	8.97	8.77	8.58	8.39
FINANCE, INS. & REAL ESTATE	4.37	5.36	5.01	5.00	5.01	5.04	5.05	5.06	5.06	5.07	5.10	5.12	5.13	5.14
SERVICES	21.86	22.19	22.88	23.21	23.54	23.92	24.23	24.55	24.86	25.17	26.78	28.42	30.12	31.86
FEDERAL CIVILIAN GOVT	1.68	1.35	1.16	1.15	1.14	1.14	1.12	1.11	1.10	1.09	1.03	0.97	0.92	0.87
FEDERAL MILITARY GOVT	0.61	0.50	0.90	0.52	0.52	0.51	0.51	0.51	0.50	0.50	0.48	0.47	0.45	0.43
STATE AND LOCAL GOVT	16.20	16.24	16.34	16.41	16.40	16.48	16.45	16.41	16.37	16.34	16.16	15.98	15.80	15.62
PERSONAL INCOME (MILLIONS 1996 \$)	16,048.92	22,076.61	24,064.70	24,536.13	24,997.03	27,663.56	28,071.43	28,482.87	28,903.51	29,333.17	31,621.75	34,170.34	37,013.41	40,192.19
INCOME PER CAPITA (1996 \$)	17,633.65	21,866.21	23,396.56	23,653.75	23,899.38	24,056.37	24,282.95	24,510.21	24,745.50	24,985.54	26,204.28	27,521.41	28,933.81	30,418.56
W&P WEALTH INDEX (U.S. = 100)	72.49	74.09	79.12	78.14	78.05	77.98	77.91	77.84	77.78	77.72	77.43	77.14	76.85	76.56
PERSONS PER HOUSEHOLD (PEOPLE)	2.88	2.75	2.72	2.71	2.70	2.69	2.68	2.67	2.66	2.65	2.62	2.60	2.60	2.62
MEAN HOUSEHOLD INCOME (1996 \$)	46,555.00	55,713.90	60,103.20	59,584.00	59,945.10	60,125.20	60,487.10	60,869.00	61,275.30	61,696.80	64,030.50	66,952.90	70,386.20	74,328.30
NUMBER OF HOUSEHOLDS (THOUSANDS)	316.54	367.49	377.85	382.61	387.30	427.73	431.63	435.45	439.18	442.88	461.19	477.36	491.91	505.15
LESS THAN \$10,000 (2000 \$)	18.09%	14.00%	13.18%	12.97%	12.73%	12.60%	12.43%	12.26%	12.09%	11.93%	11.14%	10.34%	9.42%	8.44%
\$10,000 TO \$19,999	17.08%	14.92%	14.08%	13.86%	13.61%	13.44%	13.26%	13.09%	12.92%	12.74%	11.93%	11.08%	10.10%	9.05%
\$20,000 TO \$29,999	14.75%	13.57%	12.85%	12.66%	12.43%	12.28%	12.12%	11.96%	11.81%	11.65%	10.92%	10.16%	9.28%	8.31%
\$30,000 TO \$44,999	18.12%	17.78%	17.89%	17.81%	17.75%	17.69%	17.62%	17.54%	17.45%	17.33%	16.61%	15.67%	14.42%	12.96%
\$45,000 TO \$59,999	12.97%	13.03%	13.82%	14.02%	14.27%	14.43%	14.62%	14.81%	15.00%	15.19%	16.12%	16.95%	17.43%	17.17%
\$60,000 TO \$74,999	7.86%	9.80%	10.40%	10.58%	10.78%	10.91%	11.06%	11.21%	11.36%	11.52%	12.33%	13.29%	14.60%	16.32%
\$75,000 TO \$99,999	5.53%	8.82%	9.32%	9.49%	9.67%	9.77%	9.91%	10.04%	10.17%	10.31%	11.02%	11.87%	13.05%	14.64%
\$100,000 OR MORE	5.59%	8.07%	8.47%	8.61%	8.76%	8.87%	8.98%	9.09%	9.21%	9.33%	9.93%	10.65%	11.71%	13.10%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 10 parishes in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-24

## Demographic and Employment Baseline Projections for Economic Impact Area LA-4

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	1,328.17	1,380.84	1,380.29	1,383.15	1,385.14	1,054.72	1,077.29	1,099.87	1,122.30	1,144.78	1,261.03	1,380.13	1,502.83	1,631.03
AGE UNDER 19 YEARS	30.62%	29.63%	28.71%	28.34%	28.14%	27.85%	27.69%	27.56%	27.45%	27.34%	27.13%	27.46%	27.42%	27.39%
AGE 20 TO 34 YEARS	24.73%	20.54%	20.36%	20.38%	20.37%	20.24%	20.23%	20.24%	20.31%	20.37%	20.01%	18.84%	18.16%	18.12%
AGE 35 TO 49 YEARS	20.96%	23.35%	22.70%	22.44%	22.12%	21.87%	21.52%	21.11%	20.66%	20.20%	18.92%	19.13%	19.31%	19.15%
AGE 50 TO 64 YEARS	12.63%	15.00%	16.68%	17.30%	17.87%	18.61%	19.05%	19.45%	19.85%	20.24%	20.57%	19.52%	18.03%	17.23%
AGE 65 YEARS AND OVER	11.06%	11.49%	11.54%	11.54%	11.51%	11.43%	11.52%	11.63%	11.74%	11.86%	13.36%	15.26%	17.09%	18.10%
MEDIAN AGE OF POPULATION (YEARS)	31.35	34.71	35.38	35.59	35.76	35.96	36.05	36.11	36.14	36.15	36.50	37.43	38.24	38.64
WHITE POPULATION	59.70%	55.62%	54.76%	54.52%	54.26%	54.54%	54.25%	53.95%	53.66%	53.37%	52.04%	50.87%	49.72%	48.49%
BLACK POPULATION	34.31%	37.50%	37.93%	38.07%	38.23%	37.58%	37.80%	38.05%	38.29%	38.53%	39.65%	40.64%	41.65%	42.74%
NATIVE AMERICAN POPULATION	0.29%	0.37%	0.37%	0.38%	0.38%	0.33%	0.34%	0.34%	0.34%	0.35%	0.36%	0.36%	0.37%	0.38%
ASIAN AND PACIFIC ISLANDER POP	1.58%	2.20%	2.31%	2.34%	2.40%	2.58%	2.62%	2.67%	2.72%	2.76%	2.97%	3.14%	3.30%	3.47%
HISPANIC POPULATION	4.11%	4.31%	4.63%	4.70%	4.73%	4.98%	4.98%	4.99%	4.99%	4.99%	4.98%	4.98%	4.96%	4.92%
MALE POPULATION	47.68%	47.88%	47.99%	48.02%	48.04%	48.10%	48.10%	48.11%	48.13%	48.14%	48.20%	48.22%	48.19%	48.14%
TOTAL EMPLOYMENT (THOUSANDS)	701.68	792.64	800.07	810.53	820.99	591.35	610.34	629.42	648.58	667.82	765.82	866.01	968.13	1,071.88
FARM EMPLOYMENT (Percent)	0.44%	0.36%	0.32%	0.31%	0.31%	0.47%	0.45%	0.43%	0.41%	0.40%	0.33%	0.28%	0.24%	0.20%
AGRICULTURAL SERVICES, OTHER	0.82%	1.11%	1.30%	1.31%	1.32%	1.37%	1.37%	1.38%	1.39%	1.39%	1.42%	1.46%	1.49%	1.52%
MINING	2.98%	1.75%	1.47%	1.46%	1.44%	1.16%	1.16%	1.16%	1.16%	1.16%	1.17%	1.16%	1.18%	1.18%
CONSTRUCTION	4.97%	5.73%	5.57%	5.52%	5.47%	6.15%	6.05%	5.95%	5.86%	5.78%	5.40%	5.09%	4.83%	4.61%
MANUFACTURING	7.45%	6.39%	5.87%	5.82%	5.76%	6.58%	6.47%	6.36%	6.25%	6.15%	5.71%	5.35%	5.03%	4.75%
TRANSPORT, COMM. & PUBLIC UTIL	7.38%	6.29%	5.78%	5.74%	5.71%	5.32%	5.31%	5.29%	5.27%	5.26%	5.19%	5.13%	5.07%	5.01%
WHOLESALE TRADE	5.23%	4.86%	4.41%	4.40%	4.38%	4.91%	4.86%	4.82%	4.77%	4.73%	4.54%	4.37%	4.22%	4.08%
RETAIL TRADE	17.10%	17.30%	17.50%	17.44%	17.37%	18.62%	18.49%	18.37%	18.24%	18.13%	17.58%	17.09%	16.64%	16.23%
FINANCE, INS. & REAL ESTATE	6.88%	7.11%	7.57%	7.53%	7.50%	7.96%	7.90%	7.85%	7.80%	7.75%	7.51%	7.29%	7.07%	6.87%
SERVICES	30.87%	33.88%	34.91%	35.18%	35.45%	33.80%	34.21%	34.60%	34.98%	35.34%	36.94%	38.28%	39.44%	40.45%
FEDERAL CIVILIAN GOVT	2.45%	2.13%	2.00%	1.98%	1.96%	1.24%	1.26%	1.28%	1.30%	1.32%	1.40%	1.47%	1.53%	1.58%
FEDERAL MILITARY GOVT	1.84%	1.42%	1.47%	1.45%	1.43%	1.18%	1.17%	1.17%	1.16%	1.15%	1.12%	1.10%	1.08%	1.06%
STATE AND LOCAL GOVT	11.60%	11.66%	11.83%	11.86%	11.89%	11.25%	11.30%	11.34%	11.39%	11.44%	11.69%	11.94%	12.19%	12.44%
TOTAL EARNINGS (MILLIONS 1996 \$)	20,831.68	25,521.57	27,830.83	28,638.55	29,184.81	20,042.06	20,879.47	21,727.76	22,594.52	23,481.67	28,257.72	33,630.42	39,678.76	46,488.37
FARM EARNINGS (Percent)	0.08%	0.11%	0.07%	0.08%	0.08%	0.12%	0.12%	0.12%	0.12%	0.11%	0.10%	0.09%	0.08%	0.07%
AGRICULTURAL SERVICES, OTHER	0.45%	0.53%	0.51%	0.51%	0.52%	0.55%	0.55%	0.55%	0.55%	0.56%	0.56%	0.57%	0.58%	0.59%
MINING	6.18%	4.64%	3.93%	4.08%	4.01%	2.99%	2.99%	2.99%	2.98%	2.98%	2.94%	2.88%	2.81%	2.72%
CONSTRUCTION	5.33%	6.25%	6.04%	6.18%	6.12%	6.98%	6.84%	6.70%	6.57%	6.44%	5.90%	5.45%	5.08%	4.76%
MANUFACTURING	11.39%	9.85%	9.98%	10.01%	9.92%	12.33%	12.10%	11.90%	11.70%	11.50%	10.52%	9.58%	8.67%	7.79%
TRANSPORT, COMM. & PUBLIC UTIL	9.83%	8.32%	7.63%	7.57%	7.52%	6.98%	6.96%	6.93%	6.91%	6.89%	6.77%	6.66%	6.55%	6.44%
WHOLESALE TRADE	6.45%	6.28%	5.72%	5.66%	5.62%	6.47%	6.38%	6.29%	6.21%	6.13%	5.75%	5.41%	5.10%	4.81%
RETAIL TRADE	9.38%	9.07%	9.13%	8.99%	8.94%	9.99%	9.89%	9.79%	9.70%	9.61%	9.17%	8.76%	8.38%	8.02%
FINANCE, INS. & REAL ESTATE	5.84%	6.75%	6.73%	6.65%	6.66%	6.76%	6.77%	6.77%	6.77%	6.77%	6.74%	6.68%	6.59%	6.47%
SERVICES	28.72%	31.54%	32.77%	32.82%	33.16%	31.47%	31.98%	32.46%	32.94%	33.41%	35.66%	37.83%	39.94%	42.02%
FEDERAL CIVILIAN GOVT	4.35%	4.30%	4.03%	3.98%	3.96%	2.64%	2.68%	2.72%	2.76%	2.79%	2.93%	3.03%	3.10%	3.13%
FEDERAL MILITARY GOVT	1.46%	1.25%	1.64%	1.72%	1.70%	1.16%	1.18%	1.19%	1.21%	1.22%	1.28%	1.32%	1.34%	1.34%
STATE AND LOCAL GOVT	10.54%	11.11%	11.82%	11.74%	11.78%	11.54%	11.56%	11.57%	11.59%	11.60%	11.67%	11.74%	11.79%	11.84%
PERSONAL INCOME (MILLIONS 1996 \$)	26,586.80	33,451.57	36,278.34	36,951.74	37,489.37	28,700.60	29,649.58	30,613.24	31,595.95	32,599.91	37,972.69	43,971.62	50,687.83	58,223.42
INCOME PER CAPITA (1996 \$)	20,017.59	24,225.52	26,283.11	26,715.61	27,065.40	27,211.50	27,522.43	27,833.48	28,152.81	28,476.91	30,112.47	31,860.51	33,728.28	35,697.38
W&P WEALTH INDEX (U.S. = 100)	81.11	77.45	81.94	81.81	81.73	81.68	81.64	81.61	81.57	81.53	81.34	81.13	80.89	80.62
PERSONS PER HOUSEHOLD (PEOPLE)	2.73	2.64	2.62	2.61	2.60	2.62	2.60	2.59	2.58	2.57	2.52	2.50	2.49	2.49
MEAN HOUSEHOLD INCOME (1996 \$)	52,360.33	58,347.78	62,229.22	62,529.78	62,884.89	63,083.33	63,472.22	63,875.44	64,305.78	64,754.00	67,190.44	70,224.22	73,772.89	77,838.56
NUMBER OF HOUSEHOLDS (THOUSANDS)	487.05	522.69	526.66	529.90	532.82	403.00	413.66	424.32	434.92	445.55	499.60	552.48	604.19	654.50
LESS THAN \$10,000 (2000 \$)	18.30%	14.33%	13.18%	12.86%	12.64%	10.78%	10.69%	10.60%	10.51%	10.41%	9.95%	9.35%	8.58%	7.63%
\$10,000 TO \$19,999	16.73%	15.10%	14.00%	13.71%	13.50%	12.54%	12.41%	12.27%	12.13%	11.99%	11.34%	10.55%	9.61%	8.51%
\$20,000 TO \$29,999	14.72%	14.16%	13.26%	13.02%	12.85%	12.46%	12.31%	12.16%	12.00%	11.85%	11.14%	10.31%	9.36%	8.26%
\$30,000 TO \$44,999	17.90%	17.53%	17.79%	17.85%	17.82%	17.38%	17.30%	17.22%	17.13%	17.02%	16.51%	15.71%	14.58%	12.96%
\$45,000 TO \$59,999	12.65%	12.46%	13.34%	13.57%	13.74%	14.35%	14.48%	14.62%	14.76%	14.91%	15.49%	15.78%	15.96%	15.73%
\$60,000 TO \$74,999	7.73%	9.03%	9.71%	9.89%	10.04%	10.93%	11.04%	11.15%	11.27%	11.40%	12.01%	12.92%	14.06%	15.52%
\$75,000 TO \$99,999	5.45%	8.30%	8.94%	9.12%	9.27%	10.36%	10.46%	10.56%	10.66%	10.77%	11.30%	12.15%	13.32%	15.01%
\$100,000 OR MORE	6.52%	9.09%	9.78%	9.98%	10.14%	11.20%	11.31%	11.42%	11.54%	11.65%	12.26%	13.22%	14.52%	16.39%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 9 parishes in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-25

## Demographic and Employment Baseline Projections for Economic Impact Area MS-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	389.02	459.82	467.30	473.61	478.42	475.94	481.50	487.07	492.57	498.09	526.98	556.84	588.00	621.26
AGE UNDER 19 YEARS	31.48%	29.70%	28.65%	28.30%	28.10%	27.84%	27.67%	27.55%	27.41%	27.26%	26.91%	27.18%	27.19%	27.10%
AGE 20 TO 34 YEARS	24.06%	20.71%	20.56%	20.51%	20.42%	20.36%	20.31%	20.27%	20.33%	20.47%	20.23%	19.05%	18.58%	18.47%
AGE 35 TO 49 YEARS	19.90%	22.66%	22.39%	22.24%	22.03%	21.76%	21.49%	21.13%	20.74%	20.18%	18.68%	18.78%	19.03%	19.08%
AGE 50 TO 64 YEARS	13.74%	15.62%	16.64%	17.04%	17.38%	17.86%	18.22%	18.56%	18.86%	19.34%	20.08%	19.49%	18.04%	16.92%
AGE 65 YEARS AND OVER	10.82%	11.31%	11.76%	11.91%	12.06%	12.18%	12.31%	12.49%	12.66%	12.75%	14.09%	15.51%	17.16%	18.43%
MEDIAN AGE OF POPULATION (YEARS)	31.98	34.68	35.16	35.44	35.68	36.02	36.19	36.36	36.50	36.58	37.11	37.90	38.45	38.71
WHITE POPULATION	78.99%	77.03%	76.24%	76.03%	75.85%	75.10%	74.92%	74.75%	74.57%	74.39%	73.52%	72.68%	71.84%	70.96%
BLACK POPULATION	17.99%	18.55%	19.10%	19.16%	19.28%	19.94%	20.04%	20.14%	20.24%	20.35%	20.87%	21.37%	21.86%	22.39%
NATIVE AMERICAN POPULATION	0.27%	0.44%	0.46%	0.49%	0.48%	0.48%	0.48%	0.48%	0.48%	0.48%	0.47%	0.47%	0.46%	0.45%
ASIAN AND PACIFIC ISLANDER POP	1.45%	1.81%	1.88%	1.92%	1.96%	1.99%	2.03%	2.07%	2.10%	2.14%	2.31%	2.47%	2.62%	2.80%
HISPANIC POPULATION	1.31%	2.16%	2.32%	2.40%	2.43%	2.48%	2.52%	2.57%	2.61%	2.64%	2.84%	3.02%	3.21%	3.40%
MALE POPULATION	49.46%	49.76%	49.88%	49.88%	49.89%	49.87%	49.90%	49.91%	49.93%	49.94%	49.96%	49.98%	49.99%	49.99%
TOTAL EMPLOYMENT (THOUSANDS)	177.51	244.55	243.45	247.48	251.51	248.27	252.58	256.89	261.20	265.51	287.15	308.92	330.79	352.74
FARM EMPLOYMENT	1.62%	1.44%	1.43%	1.41%	1.38%	1.46%	1.43%	1.40%	1.36%	1.34%	1.20%	1.08%	0.98%	0.89%
AGRICULTURAL SERVICES, OTHER	1.27%	1.39%	1.48%	1.49%	1.50%	1.51%	1.51%	1.52%	1.52%	1.52%	1.54%	1.55%	1.56%	1.56%
MINING	0.23%	0.12%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	0.10%	0.10%
CONSTRUCTION	4.79%	7.40%	6.66%	6.65%	6.64%	6.84%	6.63%	6.61%	6.60%	6.59%	6.52%	6.46%	6.40%	6.35%
MANUFACTURING	17.96%	11.31%	9.75%	9.66%	9.57%	9.42%	9.34%	9.26%	9.18%	9.11%	8.77%	8.48%	8.22%	8.00%
TRANSPORT, COMM. & PUBLIC UTIL	4.20%	4.00%	4.20%	4.18%	4.16%	4.17%	4.17%	4.15%	4.13%	4.12%	4.05%	3.98%	3.93%	3.88%
WHOLESALE TRADE	2.24%	2.01%	1.94%	1.93%	1.91%	1.92%	1.91%	1.90%	1.89%	1.88%	1.83%	1.80%	1.77%	1.74%
RETAIL TRADE	16.82%	17.23%	17.86%	17.82%	17.77%	17.85%	17.81%	17.76%	17.72%	17.68%	17.50%	17.35%	17.23%	17.12%
FINANCE, INS. & REAL ESTATE	4.28%	4.77%	5.18%	5.17%	5.15%	5.15%	5.13%	5.12%	5.10%	5.09%	5.02%	4.96%	4.90%	4.85%
SERVICES	19.70%	28.44%	28.41%	28.74%	29.05%	29.06%	29.38%	29.68%	29.98%	30.27%	31.59%	32.73%	33.73%	34.62%
FEDERAL CIVILIAN GOVT	5.53%	3.73%	3.64%	3.58%	3.53%	3.40%	3.35%	3.31%	3.27%	3.23%	3.04%	2.88%	2.73%	2.60%
FEDERAL MILITARY GOVT	9.08%	6.84%	7.28%	7.17%	7.06%	6.92%	6.83%	6.73%	6.64%	6.54%	6.13%	5.76%	5.44%	5.15%
STATE AND LOCAL GOVT	12.28%	11.52%	12.05%	12.11%	12.16%	12.36%	12.41%	12.45%	12.49%	12.53%	12.71%	12.87%	13.02%	13.14%
TOTAL EARNINGS (MILLIONS 1996 \$)	4,535.88	7,040.93	7,364.91	7,533.37	7,700.43	7,593.12	7,775.11	7,957.71	8,143.57	8,332.79	9,332.11	10,426.41	11,626.45	12,944.79
FARM EARNINGS	0.19%	0.08%	0.00%	0.17%	0.16%	0.18%	0.18%	0.17%	0.17%	0.16%	0.15%	0.14%	0.12%	0.11%
AGRICULTURAL SERVICES, OTHER	0.63%	0.57%	0.50%	0.51%	0.51%	0.52%	0.52%	0.52%	0.52%	0.52%	0.53%	0.54%	0.54%	0.55%
MINING	0.22%	0.16%	0.16%	0.14%	0.14%	0.14%	0.14%	0.14%	0.13%	0.13%	0.12%	0.11%	0.11%	0.10%
CONSTRUCTION	4.09%	7.59%	6.72%	6.76%	6.74%	6.73%	6.71%	6.68%	6.65%	6.62%	6.50%	6.38%	6.28%	6.19%
MANUFACTURING	24.56%	17.11%	15.91%	15.67%	15.53%	15.27%	15.18%	15.10%	15.02%	14.93%	14.42%	13.81%	13.10%	12.31%
TRANSPORT, COMM. & PUBLIC UTIL	5.45%	5.12%	5.51%	5.54%	5.52%	5.55%	5.53%	5.50%	5.48%	5.45%	5.34%	5.25%	5.17%	5.10%
WHOLESALE TRADE	2.30%	2.23%	2.27%	1.89%	1.87%	1.89%	1.87%	1.85%	1.84%	1.83%	1.77%	1.71%	1.66%	1.62%
RETAIL TRADE	8.74%	9.14%	9.07%	9.02%	8.98%	9.04%	9.01%	8.98%	8.95%	8.92%	8.79%	8.66%	8.54%	8.43%
FINANCE, INS. & REAL ESTATE	3.05%	3.32%	3.48%	3.48%	3.49%	3.53%	3.54%	3.54%	3.55%	3.55%	3.57%	3.58%	3.60%	3.60%
SERVICES	16.01%	25.52%	24.63%	24.97%	25.32%	25.47%	25.81%	26.15%	26.49%	26.83%	28.54%	30.30%	32.11%	33.96%
FEDERAL CIVILIAN GOVT	9.93%	7.69%	7.80%	7.74%	7.67%	7.42%	7.33%	7.25%	7.16%	7.08%	6.68%	6.31%	5.97%	5.64%
FEDERAL MILITARY GOVT	12.67%	9.39%	11.14%	11.20%	11.09%	10.99%	10.87%	10.77%	10.66%	10.55%	10.03%	9.51%	9.00%	8.50%
STATE AND LOCAL GOVT	12.14%	12.08%	12.82%	12.91%	12.98%	13.27%	13.31%	13.35%	13.38%	13.41%	13.56%	13.69%	13.80%	13.88%
PERSONAL INCOME (MILLIONS 1996 \$)	6,092.21	9,524.68	10,133.95	10,359.72	10,576.03	10,532.52	10,766.53	11,003.62	11,245.34	11,491.90	12,801.40	14,250.22	15,857.08	17,644.07
INCOME PER CAPITA (1996 \$)	15,660.29	20,714.06	21,686.27	21,873.95	22,105.97	22,130.03	22,360.31	22,591.59	22,829.78	23,071.93	24,292.23	25,591.31	26,967.69	28,400.56
W&P WEALTH INDEX (U.S. = 100)	63.93	67.39	70.08	69.02	68.82	68.72	68.63	68.53	68.43	68.34	67.88	67.45	67.03	66.62
PERSONS PER HOUSEHOLD (PEOPLE)	2.80	2.70	2.67	2.66	2.65	2.64	2.63	2.63	2.62	2.61	2.58	2.57	2.57	2.58
MEAN HOUSEHOLD INCOME (1996 \$)	38,951.14	49,159.57	51,015.43	50,358.57	50,608.00	50,766.43	51,079.14	51,399.86	51,744.43	52,102.29	54,081.14	56,585.43	59,549.71	62,979.00
NUMBER OF HOUSEHOLDS (THOUSANDS)	138.93	170.49	174.95	178.06	180.56	179.99	182.75	185.49	188.19	190.89	204.41	217.07	229.02	240.35
LESS THAN \$10,000 (2000 \$)	16.96%	11.89%	11.31%	11.11%	10.96%	10.87%	10.71%	10.55%	10.40%	10.24%	9.50%	8.61%	7.78%	6.89%
\$10,000 TO \$19,999	18.90%	14.52%	13.80%	13.56%	13.37%	13.28%	13.08%	12.89%	12.70%	12.51%	11.59%	10.48%	9.45%	8.35%
\$20,000 TO \$29,999	16.41%	15.05%	14.27%	14.02%	13.82%	13.64%	13.44%	13.24%	13.05%	12.86%	11.94%	10.81%	9.75%	8.63%
\$30,000 TO \$44,999	19.54%	20.51%	20.49%	20.44%	20.40%	20.31%	20.24%	20.15%	20.05%	19.92%	19.11%	17.58%	15.99%	14.16%
\$45,000 TO \$59,999	13.12%	14.42%	15.23%	15.50%	15.73%	15.94%	16.18%	16.42%	16.66%	16.92%	18.17%	19.63%	20.41%	20.36%
\$60,000 TO \$74,999	6.76%	9.43%	9.94%	10.13%	10.27%	10.39%	10.55%	10.70%	10.86%	11.02%	11.87%	13.13%	14.60%	16.58%
\$75,000 TO \$99,999	4.43%	7.83%	8.26%	8.41%	8.53%	8.58%	8.72%	8.85%	8.98%	9.12%	9.84%	10.92%	12.17%	13.85%
\$100,000 OR MORE	3.88%	6.36%	6.70%	6.83%	6.92%	6.98%	7.09%	7.19%	7.30%	7.41%	7.99%	8.85%	9.85%	11.19%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 7 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.



Table 3-26

## Demographic and Employment Baseline Projections for Economic Impact Area AL-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	609.33	677.22	685.27	690.28	697.06	741.71	746.26	750.82	755.30	759.80	784.22	810.06	837.76	868.36
AGE UNDER 19 YEARS	31.12 %	29.55 %	28.62 %	28.25 %	28.03 %	27.78 %	27.58 %	27.43 %	27.29 %	27.14 %	26.75 %	26.96 %	26.99 %	26.94 %
AGE 20 TO 34 YEARS	22.69 %	19.33 %	19.52 %	19.64 %	19.60 %	19.61 %	19.64 %	19.69 %	19.74 %	19.87 %	19.69 %	18.39 %	17.79 %	17.60 %
AGE 35 TO 49 YEARS	19.91 %	22.25 %	21.69 %	21.46 %	21.22 %	20.93 %	20.61 %	20.21 %	19.80 %	19.31 %	18.10 %	18.58 %	18.97 %	19.03 %
AGE 50 TO 64 YEARS	13.53 %	15.81 %	16.82 %	17.23 %	17.68 %	18.16 %	18.57 %	18.92 %	19.22 %	19.58 %	20.00 %	19.12 %	17.58 %	16.70 %
AGE 65 YEARS AND OVER	12.75 %	13.07 %	13.35 %	13.42 %	13.47 %	13.52 %	13.60 %	13.75 %	13.94 %	14.10 %	15.47 %	16.95 %	18.67 %	19.74 %
MEDIAN AGE OF POPULATION (YEARS)	32.73	36.08	36.80	37.04	37.19	37.39	37.51	37.65	37.77	37.86	38.00	38.50	39.24	39.52
WHITE POPULATION	68.03 %	66.74 %	66.50 %	66.50 %	66.39 %	66.27 %	66.17 %	66.05 %	65.95 %	65.83 %	65.29 %	64.75 %	64.19 %	63.55 %
BLACK POPULATION	29.75 %	30.00 %	30.11 %	30.05 %	30.11 %	30.17 %	30.22 %	30.28 %	30.34 %	30.41 %	30.71 %	31.02 %	31.33 %	31.72 %
NATIVE AMERICAN POPULATION	0.81 %	0.96 %	0.94 %	0.93 %	0.93 %	0.94 %	0.94 %	0.94 %	0.94 %	0.94 %	0.95 %	0.95 %	0.96 %	0.96 %
ASIAN AND PACIFIC ISLANDER POP	0.62 %	1.05 %	1.07 %	1.12 %	1.14 %	1.17 %	1.20 %	1.23 %	1.25 %	1.28 %	1.41 %	1.54 %	1.68 %	1.84 %
HISPANIC POPULATION	0.79 %	1.25 %	1.38 %	1.40 %	1.43 %	1.45 %	1.47 %	1.49 %	1.51 %	1.53 %	1.63 %	1.74 %	1.84 %	1.94 %
MALE POPULATION	47.77 %	48.18 %	48.25 %	48.26 %	48.29 %	48.32 %	48.35 %	48.37 %	48.39 %	48.41 %	48.50 %	48.57 %	48.58 %	48.56 %
TOTAL EMPLOYMENT (THOUSANDS)	282.20	351.87	344.78	350.12	355.46	380.45	385.13	389.81	394.47	399.13	422.18	444.96	467.51	489.85
FARM EMPLOYMENT	2.41 %	1.59 %	1.56 %	1.53 %	1.50 %	1.44 %	1.41 %	1.39 %	1.37 %	1.34 %	1.23 %	1.13 %	1.05 %	0.97 %
AGRICULTURAL SERVICES, OTHER	1.23 %	1.41 %	1.61 %	1.60 %	1.59 %	1.58 %	1.58 %	1.57 %	1.56 %	1.56 %	1.54 %	1.52 %	1.50 %	1.49 %
MINING	0.59 %	0.44 %	0.34 %	0.33 %	0.33 %	0.33 %	0.32 %	0.32 %	0.32 %	0.31 %	0.30 %	0.29 %	0.27 %	0.26 %
CONSTRUCTION	6.78 %	8.06 %	7.41 %	7.49 %	7.57 %	7.67 %	7.74 %	7.82 %	7.88 %	7.95 %	8.26 %	8.53 %	8.77 %	8.98 %
MANUFACTURING	16.51 %	11.98 %	9.97 %	9.86 %	9.76 %	9.57 %	9.48 %	9.39 %	9.31 %	9.23 %	8.84 %	8.51 %	8.21 %	7.95 %
TRANSPORT, COMM. & PUBLIC UTIL	5.30 %	6.06 %	5.58 %	5.58 %	5.58 %	5.57 %	5.57 %	5.57 %	5.57 %	5.57 %	5.57 %	5.57 %	5.57 %	5.58 %
WHOLESALE TRADE	4.56 %	4.43 %	4.34 %	4.32 %	4.31 %	4.33 %	4.32 %	4.31 %	4.29 %	4.28 %	4.22 %	4.16 %	4.11 %	4.07 %
RETAIL TRADE	17.20 %	17.68 %	18.16 %	18.14 %	18.12 %	18.04 %	18.02 %	18.00 %	17.98 %	17.96 %	17.87 %	17.80 %	17.76 %	17.72 %
FINANCE, INS. & REAL ESTATE	5.54 %	6.44 %	6.91 %	6.91 %	6.91 %	6.89 %	6.89 %	6.88 %	6.88 %	6.88 %	6.87 %	6.87 %	6.88 %	6.88 %
SERVICES	23.94 %	27.66 %	29.24 %	29.46 %	29.68 %	30.03 %	30.23 %	30.42 %	30.61 %	30.79 %	31.61 %	32.32 %	32.95 %	33.49 %
FEDERAL CIVILIAN GOVT	1.30 %	0.99 %	0.91 %	0.90 %	0.89 %	0.88 %	0.87 %	0.86 %	0.84 %	0.83 %	0.78 %	0.73 %	0.69 %	0.65 %
FEDERAL MILITARY GOVT	2.23 %	1.36 %	1.36 %	1.34 %	1.32 %	1.30 %	1.29 %	1.27 %	1.25 %	1.23 %	1.16 %	1.09 %	1.03 %	0.97 %
STATE AND LOCAL GOVT	12.41 %	11.91 %	12.61 %	12.53 %	12.44 %	12.36 %	12.28 %	12.21 %	12.14 %	12.07 %	11.75 %	11.47 %	11.22 %	10.99 %
TOTAL EARNINGS (MILLIONS 1996 \$)	7,245.54	9,751.86	9,939.87	10,105.12	10,308.78	11,120.89	11,317.03	11,512.51	11,711.31	11,913.44	12,974.74	14,128.14	15,383.24	16,751.74
FARM EARNINGS	1.43 %	0.84 %	0.72 %	0.64 %	0.64 %	0.62 %	0.62 %	0.62 %	0.62 %	0.62 %	0.61 %	0.60 %	0.58 %	0.57 %
AGRICULTURAL SERVICES, OTHER	0.57 %	0.76 %	0.70 %	0.70 %	0.70 %	0.69 %	0.69 %	0.69 %	0.68 %	0.68 %	0.68 %	0.68 %	0.68 %	0.68 %
MINING	0.71 %	0.89 %	0.73 %	0.75 %	0.74 %	0.72 %	0.71 %	0.69 %	0.68 %	0.67 %	0.62 %	0.58 %	0.54 %	0.50 %
CONSTRUCTION	7.33 %	8.55 %	7.61 %	7.97 %	8.04 %	8.13 %	8.19 %	8.24 %	8.29 %	8.34 %	8.56 %	8.73 %	8.88 %	8.99 %
MANUFACTURING	24.20 %	18.50 %	16.38 %	16.27 %	16.10 %	15.82 %	15.71 %	15.61 %	15.51 %	15.41 %	14.81 %	14.11 %	13.32 %	12.47 %
TRANSPORT, COMM. & PUBLIC UTIL	7.35 %	8.18 %	7.82 %	7.85 %	7.84 %	7.83 %	7.82 %	7.81 %	7.80 %	7.80 %	7.76 %	7.74 %	7.72 %	7.72 %
WHOLESALE TRADE	5.50 %	5.91 %	6.31 %	6.31 %	6.28 %	6.31 %	6.28 %	6.25 %	6.22 %	6.19 %	6.04 %	5.90 %	5.77 %	5.64 %
RETAIL TRADE	10.15 %	10.59 %	10.88 %	10.89 %	10.85 %	10.76 %	10.73 %	10.70 %	10.68 %	10.65 %	10.53 %	10.41 %	10.31 %	10.21 %
FINANCE, INS. & REAL ESTATE	3.87 %	5.65 %	6.09 %	6.14 %	6.18 %	6.21 %	6.24 %	6.27 %	6.30 %	6.33 %	6.47 %	6.60 %	6.72 %	6.84 %
SERVICES	21.54 %	23.36 %	24.54 %	24.88 %	25.11 %	25.50 %	25.72 %	25.93 %	26.15 %	26.38 %	27.53 %	28.76 %	30.04 %	31.39 %
FEDERAL CIVILIAN GOVT	2.61 %	2.18 %	2.15 %	2.14 %	2.12 %	2.12 %	2.10 %	2.07 %	2.05 %	2.02 %	1.90 %	1.79 %	1.68 %	1.58 %
FEDERAL MILITARY GOVT	1.46 %	1.00 %	1.62 %	1.02 %	1.01 %	1.01 %	1.00 %	0.99 %	0.99 %	0.98 %	0.94 %	0.90 %	0.86 %	0.82 %
STATE AND LOCAL GOVT	13.29 %	13.61 %	14.46 %	14.46 %	14.39 %	14.28 %	14.20 %	14.11 %	14.02 %	13.94 %	13.55 %	13.20 %	12.88 %	12.59 %
PERSONAL INCOME (MILLIONS 1996 \$)	10,111.40	13,927.73	14,371.09	14,637.96	14,945.65	16,039.34	16,326.52	16,617.21	16,913.70	17,215.97	18,818.82	20,590.27	22,552.96	24,733.81
INCOME PER CAPITA (1996 \$)	16,594.34	20,566.12	20,971.52	21,205.83	21,440.86	21,624.87	21,877.67	22,131.99	22,393.29	22,658.50	23,996.95	25,418.30	26,920.71	28,483.36
W&P WEALTH INDEX (U.S. = 100)	69.27	68.32	69.85	69.25	69.20	69.17	69.15	69.13	69.12	69.11	69.02	68.92	68.78	68.62
PERSONS PER HOUSEHOLD (PEOPLE)	2.76	2.62	2.60	2.59	2.58	2.57	2.57	2.56	2.55	2.54	2.52	2.51	2.51	2.53
MEAN HOUSEHOLD INCOME (1996 \$)	41,889.13	47,825.00	48,273.50	48,067.75	48,444.63	48,690.25	49,080.75	49,492.25	49,927.00	50,370.75	52,769.63	55,647.38	58,952.38	62,691.75
NUMBER OF HOUSEHOLDS (THOUSANDS)	221.16	258.01	263.44	266.41	270.03	288.19	290.94	293.63	296.25	298.86	311.79	323.37	333.97	343.82
LESS THAN \$10,000 (2000 \$)	18.75 %	14.69 %	13.99 %	13.76 %	13.53 %	13.31 %	13.09 %	12.88 %	12.67 %	12.46 %	11.49 %	10.42 %	9.18 %	7.94 %
\$10,000 TO \$19,999	18.03 %	15.91 %	15.23 %	15.02 %	14.80 %	14.59 %	14.38 %	14.17 %	13.96 %	13.75 %	12.79 %	11.69 %	10.40 %	9.04 %
\$20,000 TO \$29,999	15.81 %	14.12 %	13.58 %	13.42 %	13.25 %	13.08 %	12.91 %	12.73 %	12.56 %	12.39 %	11.59 %	10.66 %	9.52 %	8.30 %
\$30,000 TO \$44,999	18.54 %	18.51 %	18.69 %	18.72 %	18.74 %	18.74 %	18.73 %	18.70 %	18.66 %	18.60 %	18.15 %	17.12 %	15.52 %	13.67 %
\$45,000 TO \$59,999	12.25 %	13.58 %	14.20 %	14.39 %	14.60 %	14.82 %	15.03 %	15.26 %	15.48 %	15.71 %	16.77 %	18.09 %	19.20 %	19.08 %
\$60,000 TO \$74,999	7.46 %	8.74 %	9.15 %	9.28 %	9.42 %	9.56 %	9.70 %	9.85 %	10.00 %	10.15 %	10.92 %	11.95 %	13.48 %	15.59 %
\$75,000 TO \$99,999	4.50 %	7.63 %	7.99 %	8.11 %	8.24 %	8.37 %	8.50 %	8.63 %	8.77 %	8.90 %	9.59 %	10.51 %	11.87 %	13.76 %
\$100,000 OR MORE	4.67 %	6.83 %	7.18 %	7.30 %	7.42 %	7.53 %	7.66 %	7.78 %	7.91 %	8.04 %	8.70 %	9.56 %	10.84 %	12.62 %

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 8 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-27

Demographic and Employment Baseline Projections for Economic Impact Area FL-1

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	665.78	797.21	832.50	845.69	858.08	883.12	900.43	917.72	934.88	952.03	1,040.01	1,129.62	1,221.79	1,318.38
AGE UNDER 19 YEARS	29.48%	27.37%	27.14%	26.91%	26.52%	26.16%	25.83%	25.58%	25.33%	25.08%	24.61%	24.87%	24.95%	25.07%
AGE 20 TO 34 YEARS	25.11%	20.05%	19.41%	19.31%	19.43%	19.57%	19.71%	19.87%	20.11%	20.34%	20.56%	19.20%	18.19%	17.97%
AGE 35 TO 49 YEARS	19.83%	23.48%	22.51%	22.20%	21.88%	21.52%	21.13%	20.60%	20.03%	19.42%	17.26%	17.77%	18.84%	19.33%
AGE 50 TO 64 YEARS	14.16%	16.10%	17.48%	18.06%	18.36%	18.67%	18.91%	19.17%	19.41%	19.80%	20.40%	19.36%	17.36%	15.64%
AGE 65 YEARS AND OVER	11.42%	12.99%	13.45%	13.52%	13.81%	14.08%	14.42%	14.77%	15.12%	15.36%	17.18%	18.81%	20.66%	21.98%
MEDIAN AGE OF POPULATION (YEARS)	34.24	38.36	39.21	39.47	39.77	40.03	40.26	40.50	40.69	40.85	41.13	41.12	41.57	42.02
WHITE POPULATION	82.15%	80.37%	79.85%	79.70%	79.52%	79.28%	79.08%	78.89%	78.70%	78.50%	77.56%	76.61%	75.62%	74.51%
BLACK POPULATION	13.23%	13.58%	13.75%	13.76%	13.83%	13.93%	14.01%	14.09%	14.17%	14.26%	14.68%	15.11%	15.58%	16.13%
NATIVE AMERICAN POPULATION	0.82%	0.88%	0.86%	0.85%	0.84%	0.83%	0.83%	0.82%	0.81%	0.80%	0.76%	0.73%	0.69%	0.65%
ASIAN AND PACIFIC ISLANDER POP	1.75%	2.25%	2.32%	2.36%	2.40%	2.45%	2.49%	2.53%	2.57%	2.60%	2.76%	2.88%	2.99%	3.11%
HISPANIC POPULATION	2.05%	2.91%	3.22%	3.33%	3.41%	3.50%	3.59%	3.67%	3.75%	3.83%	4.24%	4.67%	5.12%	5.60%
MALE POPULATION	49.37%	50.14%	50.14%	50.17%	50.21%	50.24%	50.29%	50.33%	50.37%	50.40%	50.59%	50.73%	50.88%	51.04%
TOTAL EMPLOYMENT (THOUSANDS)	338.22	435.92	449.86	461.76	473.65	488.53	500.29	512.06	523.82	535.58	594.28	652.91	711.49	770.03
FARM EMPLOYMENT	0.64%	0.56%	0.56%	0.54%	0.53%	0.51%	0.50%	0.49%	0.48%	0.46%	0.41%	0.37%	0.34%	0.31%
AGRICULTURAL SERVICES, OTHER	1.18%	1.25%	1.38%	1.36%	1.35%	1.34%	1.32%	1.31%	1.30%	1.29%	1.25%	1.21%	1.19%	1.16%
MINING	0.23%	0.16%	0.12%	0.12%	0.12%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	0.09%	0.08%	0.08%
CONSTRUCTION	5.92%	7.04%	6.20%	6.15%	6.11%	6.07%	6.02%	5.98%	5.95%	5.91%	5.75%	5.62%	5.51%	5.42%
MANUFACTURING	7.04%	4.11%	3.86%	3.76%	3.67%	3.59%	3.51%	3.43%	3.36%	3.29%	2.98%	2.72%	2.51%	2.33%
TRANSPORT, COMM. & PUBLIC UTIL	3.87%	3.77%	3.79%	3.76%	3.72%	3.69%	3.67%	3.64%	3.62%	3.59%	3.49%	3.40%	3.33%	3.27%
WHOLESALE TRADE	2.79%	2.99%	2.80%	2.80%	2.80%	2.80%	2.79%	2.79%	2.79%	2.79%	2.79%	2.78%	2.78%	2.77%
RETAIL TRADE	19.49%	18.79%	18.03%	17.80%	17.57%	17.35%	17.15%	16.95%	16.76%	16.58%	15.79%	15.15%	14.61%	14.15%
FINANCE, INS. & REAL ESTATE	5.76%	7.13%	7.38%	7.36%	7.34%	7.32%	7.30%	7.28%	7.26%	7.24%	7.17%	7.11%	7.05%	7.01%
SERVICES	25.48%	32.78%	34.41%	35.33%	36.20%	37.03%	37.81%	38.56%	39.28%	39.96%	42.97%	45.43%	47.48%	49.21%
FEDERAL CIVILIAN GOVT	6.66%	4.00%	3.66%	3.56%	3.48%	3.39%	3.31%	3.24%	3.16%	3.09%	2.79%	2.53%	2.33%	2.15%
FEDERAL MILITARY GOVT	10.46%	8.11%	8.57%	8.37%	8.18%	8.01%	7.83%	7.67%	7.51%	7.36%	6.71%	6.17%	5.73%	5.35%
STATE AND LOCAL GOVT	10.47%	9.31%	9.23%	9.08%	8.94%	8.80%	8.67%	8.55%	8.43%	8.32%	7.82%	7.41%	7.08%	6.79%
TOTAL EARNINGS (MILLIONS 1996 \$)	9,140.94	12,355.71	13,536.33	14,052.87	14,498.11	15,042.32	15,500.06	15,961.31	16,433.38	16,916.65	19,515.21	22,456.99	25,800.77	29,613.16
FARM EARNINGS	0.30%	0.20%	0.21%	0.18%	0.18%	0.18%	0.17%	0.17%	0.17%	0.17%	0.16%	0.15%	0.14%	0.13%
AGRICULTURAL SERVICES, OTHER	0.52%	0.64%	0.56%	0.57%	0.56%	0.56%	0.55%	0.55%	0.55%	0.54%	0.53%	0.52%	0.50%	0.49%
MINING	0.21%	0.20%	0.19%	0.15%	0.15%	0.15%	0.14%	0.14%	0.13%	0.13%	0.12%	0.10%	0.09%	0.08%
CONSTRUCTION	5.50%	6.39%	5.28%	5.39%	5.35%	5.31%	5.26%	5.22%	5.17%	5.13%	4.93%	4.74%	4.56%	4.38%
MANUFACTURING	9.89%	5.87%	5.65%	5.60%	5.48%	5.36%	5.26%	5.17%	5.08%	4.99%	4.53%	4.08%	3.64%	3.22%
TRANSPORT, COMM. & PUBLIC UTIL	4.88%	5.38%	5.45%	5.23%	5.19%	5.15%	5.11%	5.07%	5.04%	5.00%	4.84%	4.69%	4.55%	4.42%
WHOLESALE TRADE	2.98%	3.79%	3.48%	3.44%	3.43%	3.43%	3.43%	3.42%	3.42%	3.42%	3.38%	3.33%	3.26%	3.18%
RETAIL TRADE	10.15%	10.48%	10.31%	10.15%	10.00%	9.86%	9.73%	9.60%	9.48%	9.37%	8.82%	8.33%	7.89%	7.47%
FINANCE, INS. & REAL ESTATE	3.27%	5.55%	5.86%	5.82%	5.87%	5.91%	5.95%	5.98%	6.02%	6.05%	6.20%	6.33%	6.42%	6.50%
SERVICES	20.84%	27.30%	28.18%	29.02%	29.94%	30.83%	31.69%	32.52%	33.33%	34.12%	37.88%	41.34%	44.59%	47.65%
FEDERAL CIVILIAN GOVT	11.35%	7.87%	7.44%	7.14%	7.00%	6.85%	6.70%	6.55%	6.41%	6.27%	5.63%	5.06%	4.56%	4.12%
FEDERAL MILITARY GOVT	18.23%	15.23%	16.68%	16.76%	16.46%	16.18%	15.90%	15.64%	15.38%	15.13%	13.92%	12.80%	11.74%	10.75%
STATE AND LOCAL GOVT	11.89%	11.10%	10.73%	10.53%	10.39%	10.25%	10.10%	9.96%	9.82%	9.69%	9.08%	8.54%	8.06%	7.61%
PERSONAL INCOME (MILLIONS 1996 \$)	12,322.58	17,809.42	19,250.91	19,765.79	20,310.85	21,094.40	21,760.19	22,437.30	23,130.05	23,838.89	27,644.39	31,938.74	36,804.67	42,339.03
INCOME PER CAPITA (1996 \$)	18,508.40	22,339.66	23,124.33	23,372.43	23,670.03	23,886.22	24,166.42	24,449.07	24,741.33	25,040.06	26,580.96	28,273.81	30,123.64	32,114.36
W&P WEALTH INDEX (U.S. = 100)	78.07	78.33	81.45	81.13	81.13	81.11	81.08	81.05	81.04	81.02	81.06	81.22	81.49	81.87
PERSONS PER HOUSEHOLD (PEOPLE)	2.65	2.60	2.57	2.56	2.55	2.54	2.53	2.52	2.51	2.50	2.47	2.46	2.47	2.49
MEAN HOUSEHOLD INCOME (1996 \$)	43,452.14	51,182.86	53,480.43	53,603.29	54,007.43	54,259.43	54,665.00	55,094.14	55,553.14	56,027.43	58,720.14	62,149.14	66,270.14	71,115.71
NUMBER OF HOUSEHOLDS (THOUSANDS)	251.34	307.09	323.95	330.54	336.83	348.04	356.13	364.18	372.17	380.17	420.21	458.42	494.80	529.51
LESS THAN \$10,000 (2000 \$)	12.87%	9.79%	9.33%	9.14%	8.99%	8.85%	8.72%	8.59%	8.46%	8.33%	7.62%	6.75%	5.83%	5.03%
\$10,000 TO \$19,999	16.42%	13.94%	13.33%	13.07%	12.86%	12.67%	12.49%	12.31%	12.13%	11.96%	10.94%	9.68%	8.37%	7.24%
\$20,000 TO \$29,999	17.38%	15.53%	14.85%	14.56%	14.32%	14.12%	13.91%	13.72%	13.52%	13.33%	12.21%	10.81%	9.35%	8.10%
\$30,000 TO \$44,999	20.83%	20.51%	20.34%	20.17%	20.02%	19.91%	19.78%	19.65%	19.51%	19.36%	18.18%	16.20%	14.03%	12.16%
\$45,000 TO \$59,999	14.01%	14.59%	15.28%	15.61%	15.86%	16.08%	16.31%	16.52%	16.73%	16.94%	18.05%	18.98%	18.78%	17.56%
\$60,000 TO \$74,999	8.05%	9.91%	10.38%	10.61%	10.79%	10.95%	11.12%	11.28%	11.44%	11.61%	12.73%	14.47%	16.76%	18.77%
\$75,000 TO \$99,999	5.29%	8.11%	8.50%	8.69%	8.84%	8.97%	9.11%	9.24%	9.38%	9.52%	10.44%	11.89%	13.83%	16.02%
\$100,000 OR MORE	5.15%	7.61%	7.99%	8.17%	8.31%	8.44%	8.57%	8.69%	8.82%	8.95%	9.83%	11.21%	13.05%	15.12%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 7 counties in the EIA; income per capita calculated using personal income/total population for the EIA; person per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-28

## Demographic and Employment Baseline Projections for Economic Impact Area FL-2

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	472.24	577.43	592.26	599.70	609.81	619.51	627.71	635.91	644.04	652.17	694.50	738.07	783.36	831.46
AGE UNDER 19 YEARS	30.41%	27.35%	26.00%	25.73%	25.51%	25.29%	25.14%	25.07%	24.97%	24.83%	24.78%	25.36%	25.54%	25.55%
AGE 20 TO 34 YEARS	25.81%	23.71%	24.46%	24.41%	24.25%	24.16%	24.10%	23.96%	23.79%	23.45%	20.97%	19.44%	19.05%	19.24%
AGE 35 TO 49 YEARS	19.89%	22.14%	21.20%	20.95%	20.80%	20.56%	20.30%	20.03%	19.88%	19.84%	20.73%	21.01%	20.37%	18.40%
AGE 50 TO 64 YEARS	12.27%	15.24%	16.53%	17.04%	17.43%	17.82%	18.14%	18.42%	18.61%	18.92%	18.86%	17.87%	17.31%	18.35%
AGE 65 YEARS AND OVER	11.62%	11.56%	11.80%	11.87%	12.01%	12.16%	12.33%	12.52%	12.74%	12.96%	14.67%	16.31%	17.73%	18.46%
MEDIAN AGE OF POPULATION (YEARS)	32.95	36.58	36.81	36.88	37.16	37.46	37.73	37.98	38.20	38.43	39.17	39.82	40.68	41.24
WHITE POPULATION	71.19%	67.94%	67.40%	67.20%	67.00%	66.69%	66.38%	66.07%	65.76%	65.45%	63.94%	62.42%	60.90%	59.25%
BLACK POPULATION	25.57%	26.84%	26.84%	26.78%	26.88%	27.07%	27.24%	27.42%	27.61%	27.80%	28.68%	29.61%	30.55%	31.59%
NATIVE AMERICAN POPULATION	0.41%	0.48%	0.48%	0.49%	0.48%	0.48%	0.47%	0.47%	0.47%	0.47%	0.45%	0.42%	0.40%	0.37%
ASIAN AND PACIFIC ISLANDER POP	0.74%	1.11%	1.22%	1.28%	1.30%	1.34%	1.37%	1.40%	1.44%	1.47%	1.64%	1.79%	1.97%	2.16%
HISPANIC POPULATION	2.09%	3.63%	4.06%	4.24%	4.33%	4.43%	4.53%	4.63%	4.72%	4.82%	5.29%	5.75%	6.19%	6.63%
MALE POPULATION	49.08%	49.87%	50.17%	50.25%	50.29%	50.29%	50.31%	50.32%	50.33%	50.34%	50.39%	50.37%	50.34%	50.32%
TOTAL EMPLOYMENT (THOUSANDS)	241.45	301.77	306.38	312.12	317.83	323.52	329.19	334.84	340.50	346.13	374.26	402.29	430.26	458.17
FARM EMPLOYMENT	3.66%	3.20%	3.15%	3.09%	3.03%	2.98%	2.93%	2.88%	2.83%	2.78%	2.56%	2.38%	2.22%	2.08%
AGRICULTURAL SERVICES, OTHER	1.34%	1.53%	1.49%	1.50%	1.51%	1.52%	1.53%	1.54%	1.55%	1.56%	1.60%	1.63%	1.66%	1.69%
MINING	0.21%	0.12%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	0.10%	0.10%	0.10%	0.09%	0.09%
CONSTRUCTION	5.29%	5.23%	5.37%	5.33%	5.29%	5.24%	5.21%	5.17%	5.13%	5.10%	4.94%	4.81%	4.70%	4.60%
MANUFACTURING	7.79%	5.69%	4.96%	4.91%	4.85%	4.79%	4.74%	4.69%	4.64%	4.59%	4.38%	4.20%	4.04%	3.89%
TRANSPORT, COMM. & PUBLIC UTIL	2.76%	2.90%	2.47%	2.47%	2.47%	2.46%	2.46%	2.46%	2.46%	2.45%	2.44%	2.43%	2.43%	2.42%
WHOLESALE TRADE	2.91%	2.78%	2.56%	2.54%	2.51%	2.49%	2.47%	2.45%	2.42%	2.40%	2.31%	2.24%	2.17%	2.11%
RETAIL TRADE	17.16%	16.22%	16.01%	15.91%	15.81%	15.72%	15.63%	15.54%	15.45%	15.37%	15.00%	14.68%	14.40%	14.16%
FINANCE, INS. & REAL ESTATE	5.16%	5.05%	5.53%	5.50%	5.48%	5.46%	5.44%	5.42%	5.40%	5.38%	5.30%	5.24%	5.18%	5.12%
SERVICES	22.70%	27.86%	28.98%	29.53%	30.07%	30.58%	31.08%	31.57%	32.03%	32.48%	34.51%	36.25%	37.75%	39.07%
FEDERAL CIVILIAN GOVT	1.57%	1.38%	1.26%	1.25%	1.23%	1.21%	1.20%	1.18%	1.17%	1.15%	1.09%	1.04%	0.99%	0.95%
FEDERAL MILITARY GOVT	0.64%	0.46%	0.46%	0.45%	0.44%	0.44%	0.43%	0.42%	0.41%	0.41%	0.37%	0.34%	0.32%	0.30%
STATE AND LOCAL GOVT	28.81%	27.57%	27.65%	27.43%	27.21%	26.99%	26.79%	26.59%	26.40%	26.22%	25.38%	24.67%	24.06%	23.52%
TOTAL EARNINGS (MILLIONS 1996 \$)	6,062.48	8,577.46	8,810.41	9,114.46	9,345.09	9,577.30	9,812.24	10,046.07	10,284.76	10,528.48	11,828.21	13,277.52	14,897.13	16,709.80
FARM EARNINGS	2.86%	1.91%	1.43%	1.88%	1.87%	1.87%	1.87%	1.86%	1.86%	1.86%	1.84%	1.82%	1.79%	1.77%
AGRICULTURAL SERVICES, OTHER	0.83%	0.85%	0.86%	0.80%	0.80%	0.81%	0.81%	0.82%	0.82%	0.83%	0.85%	0.87%	0.88%	0.90%
MINING	0.23%	0.17%	0.17%	0.17%	0.16%	0.16%	0.16%	0.16%	0.15%	0.15%	0.14%	0.13%	0.12%	0.11%
CONSTRUCTION	5.06%	4.82%	5.11%	5.21%	5.15%	5.10%	5.04%	4.99%	4.94%	4.88%	4.65%	4.44%	4.26%	4.08%
MANUFACTURING	9.51%	7.09%	6.29%	6.29%	6.20%	6.13%	6.07%	6.02%	5.96%	5.91%	5.61%	5.27%	4.91%	4.52%
TRANSPORT, COMM. & PUBLIC UTIL	3.72%	3.77%	3.21%	3.34%	3.33%	3.32%	3.31%	3.30%	3.29%	3.28%	3.24%	3.19%	3.15%	3.10%
WHOLESALE TRADE	3.68%	3.41%	2.96%	2.97%	2.93%	2.89%	2.86%	2.83%	2.79%	2.76%	2.61%	2.47%	2.34%	2.21%
RETAIL TRADE	9.68%	8.63%	8.66%	8.54%	8.46%	8.37%	8.30%	8.23%	8.16%	8.10%	7.78%	7.48%	7.20%	6.93%
FINANCE, INS. & REAL ESTATE	3.61%	5.02%	5.83%	5.64%	5.66%	5.67%	5.68%	5.69%	5.71%	5.72%	5.76%	5.79%	5.81%	5.81%
SERVICES	20.32%	25.49%	26.61%	26.89%	27.48%	28.06%	28.62%	29.18%	29.73%	30.27%	32.86%	35.31%	37.67%	39.95%
FEDERAL CIVILIAN GOVT	2.99%	2.86%	2.87%	3.02%	2.99%	2.96%	2.92%	2.89%	2.85%	2.82%	2.66%	2.50%	2.36%	2.22%
FEDERAL MILITARY GOVT	0.44%	0.34%	0.55%	0.35%	0.35%	0.34%	0.34%	0.34%	0.33%	0.33%	0.31%	0.29%	0.27%	0.25%
STATE AND LOCAL GOVT	37.06%	35.63%	35.44%	34.91%	34.61%	34.32%	34.02%	33.71%	33.40%	33.11%	31.71%	30.44%	29.26%	28.15%
PERSONAL INCOME (MILLIONS 1996 \$)	8,106.37	11,724.84	12,111.99	12,370.14	12,665.57	12,998.34	13,338.86	13,684.21	14,036.96	14,397.35	16,321.19	18,469.10	20,873.41	23,571.75
INCOME PER CAPITA (1996 \$)	17,165.88	20,305.15	20,450.60	20,627.11	20,769.67	20,981.81	21,250.03	21,519.02	21,795.34	22,076.04	23,500.60	25,023.58	26,646.07	28,349.97
W&P WEALTH INDEX (U.S. = 100)	67.72	65.14	64.61	64.60	64.26	64.24	64.22	64.20	64.18	64.16	64.06	63.96	63.87	63.77
PERSONS PER HOUSEHOLD (PEOPLE)	2.72	2.64	2.62	2.61	2.60	2.59	2.58	2.57	2.56	2.55	2.52	2.51	2.51	2.53
MEAN HOUSEHOLD INCOME (1996 \$)	40,180.33	45,050.73	43,989.00	44,202.47	44,193.27	44,399.60	44,733.13	45,071.93	45,436.67	45,808.73	47,835.87	50,329.80	53,256.07	56,633.07
NUMBER OF HOUSEHOLDS (THOUSANDS)	173.52	219.00	226.45	230.12	234.68	239.39	243.46	247.51	251.51	255.51	275.58	294.40	311.87	328.05
LESS THAN \$10,000 (2000 \$)	17.45%	14.98%	14.47%	14.29%	14.08%	13.88%	13.68%	13.48%	13.29%	13.10%	12.19%	11.04%	9.90%	8.67%
\$10,000 TO \$19,999	18.14%	15.75%	15.28%	15.10%	14.91%	14.68%	14.46%	14.24%	14.02%	13.81%	12.80%	11.58%	10.38%	9.08%
\$20,000 TO \$29,999	16.21%	15.25%	14.83%	14.67%	14.49%	14.28%	14.07%	13.87%	13.66%	13.47%	12.51%	11.33%	10.16%	8.89%
\$30,000 TO \$44,999	18.65%	18.16%	18.42%	18.52%	18.63%	18.70%	18.75%	18.78%	18.80%	18.79%	18.52%	17.58%	16.23%	14.32%
\$45,000 TO \$59,999	11.87%	12.84%	13.27%	13.43%	13.62%	13.82%	14.02%	14.23%	14.43%	14.64%	15.73%	16.97%	17.87%	18.31%
\$60,000 TO \$74,999	7.14%	8.52%	8.79%	8.89%	9.01%	9.14%	9.28%	9.41%	9.55%	9.69%	10.43%	11.57%	12.97%	14.87%
\$75,000 TO \$99,999	5.12%	7.41%	7.65%	7.73%	7.82%	7.94%	8.06%	8.19%	8.32%	8.44%	9.11%	10.16%	11.43%	13.14%
\$100,000 OR MORE	5.42%	7.08%	7.30%	7.36%	7.44%	7.56%	7.68%	7.80%	7.93%	8.05%	8.71%	9.78%	11.04%	12.71%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 15 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-29

Demographic and Employment Baseline Projections for Economic Impact Area FL-3

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	472.24	577.43	592.26	599.70	609.81	619.51	627.71	635.91	644.04	652.17	694.50	738.07	783.36	831.46
AGE UNDER 19 YEARS	30.41%	27.35%	26.00%	25.73%	25.51%	25.29%	25.14%	25.07%	24.97%	24.83%	24.78%	25.36%	25.54%	25.55%
AGE 20 TO 34 YEARS	25.81%	23.71%	24.46%	24.41%	24.25%	24.16%	24.10%	23.96%	23.79%	23.45%	20.97%	19.44%	19.05%	19.24%
AGE 35 TO 49 YEARS	19.89%	22.14%	21.20%	20.95%	20.80%	20.56%	20.30%	20.03%	19.88%	19.84%	20.73%	21.01%	20.37%	18.40%
AGE 50 TO 64 YEARS	12.27%	15.24%	16.53%	17.04%	17.43%	17.82%	18.14%	18.42%	18.61%	18.92%	18.86%	17.87%	17.31%	18.35%
AGE 65 YEARS AND OVER	11.62%	11.56%	11.80%	11.87%	12.01%	12.16%	12.33%	12.52%	12.74%	12.96%	14.67%	16.31%	17.73%	18.46%
MEDIAN AGE OF POPULATION (YEARS)	32.95	36.58	36.81	36.88	37.16	37.46	37.73	37.98	38.20	38.43	39.17	39.82	40.68	41.24
WHITE POPULATION	71.19%	67.94%	67.40%	67.20%	67.00%	66.69%	66.38%	66.07%	65.76%	65.45%	63.94%	62.42%	60.90%	59.25%
BLACK POPULATION	25.57%	26.84%	26.84%	26.78%	26.88%	27.07%	27.24%	27.42%	27.61%	27.80%	28.68%	29.61%	30.55%	31.59%
NATIVE AMERICAN POPULATION	0.41%	0.48%	0.48%	0.49%	0.48%	0.48%	0.47%	0.47%	0.47%	0.47%	0.45%	0.42%	0.40%	0.37%
ASIAN AND PACIFIC ISLANDER POP	0.74%	1.11%	1.22%	1.28%	1.30%	1.34%	1.37%	1.40%	1.44%	1.47%	1.64%	1.79%	1.97%	2.16%
HISPANIC POPULATION	2.09%	3.63%	4.06%	4.24%	4.33%	4.43%	4.53%	4.63%	4.72%	4.82%	5.29%	5.75%	6.19%	6.63%
MALE POPULATION	49.08%	49.87%	50.17%	50.25%	50.29%	50.29%	50.31%	50.32%	50.33%	50.34%	50.39%	50.37%	50.34%	50.32%
TOTAL EMPLOYMENT (THOUSANDS)	241.45	301.77	306.38	312.12	317.83	323.52	329.19	334.84	340.50	346.13	374.26	402.29	430.26	458.17
FARM EMPLOYMENT	3.66%	3.20%	3.15%	3.09%	3.03%	2.98%	2.93%	2.88%	2.83%	2.78%	2.56%	2.38%	2.22%	2.08%
AGRICULTURAL SERVICES, OTHER	1.34%	1.53%	1.49%	1.50%	1.51%	1.52%	1.53%	1.54%	1.55%	1.56%	1.60%	1.63%	1.66%	1.69%
MINING	0.21%	0.12%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	0.10%	0.10%	0.10%	0.09%	0.09%
CONSTRUCTION	5.29%	5.23%	5.37%	5.33%	5.29%	5.24%	5.21%	5.17%	5.13%	5.10%	4.94%	4.81%	4.70%	4.60%
MANUFACTURING	7.79%	5.69%	4.96%	4.91%	4.85%	4.79%	4.74%	4.69%	4.64%	4.59%	4.38%	4.20%	4.04%	3.89%
TRANSPORT, COMM. & PUBLIC UTIL	2.76%	2.90%	2.47%	2.47%	2.47%	2.46%	2.46%	2.46%	2.46%	2.45%	2.44%	2.43%	2.43%	2.42%
WHOLESALE TRADE	2.91%	2.78%	2.56%	2.54%	2.51%	2.49%	2.47%	2.45%	2.42%	2.40%	2.31%	2.24%	2.17%	2.11%
RETAIL TRADE	17.16%	16.22%	16.01%	15.91%	15.81%	15.72%	15.63%	15.54%	15.45%	15.37%	15.00%	14.68%	14.40%	14.16%
FINANCE, INS. & REAL ESTATE	5.16%	5.05%	5.53%	5.50%	5.48%	5.46%	5.44%	5.42%	5.40%	5.38%	5.30%	5.24%	5.18%	5.12%
SERVICES	22.70%	27.86%	28.98%	29.53%	30.07%	30.58%	31.08%	31.57%	32.03%	32.48%	34.51%	36.25%	37.75%	39.07%
FEDERAL CIVILIAN GOVT	1.57%	1.38%	1.26%	1.25%	1.23%	1.21%	1.20%	1.18%	1.17%	1.15%	1.09%	1.04%	0.99%	0.95%
FEDERAL MILITARY GOVT	0.64%	0.46%	0.46%	0.45%	0.44%	0.44%	0.43%	0.42%	0.41%	0.41%	0.37%	0.34%	0.32%	0.30%
STATE AND LOCAL GOVT	28.81%	27.57%	27.65%	27.43%	27.21%	26.99%	26.79%	26.59%	26.40%	26.22%	25.38%	24.67%	24.06%	23.52%
TOTAL EARNINGS (MILLIONS 1996 \$)	6,062.48	8,577.46	8,810.41	9,114.46	9,345.09	9,577.30	9,812.24	10,046.07	10,284.76	10,528.48	11,828.21	13,277.52	14,897.13	16,709.80
FARM EARNINGS	2.86%	1.91%	1.43%	1.88%	1.87%	1.87%	1.87%	1.86%	1.86%	1.86%	1.84%	1.82%	1.79%	1.77%
AGRICULTURAL SERVICES, OTHER	0.83%	0.85%	0.86%	0.80%	0.80%	0.81%	0.81%	0.82%	0.82%	0.83%	0.85%	0.87%	0.88%	0.90%
MINING	0.23%	0.17%	0.17%	0.17%	0.16%	0.16%	0.16%	0.16%	0.15%	0.15%	0.14%	0.13%	0.12%	0.11%
CONSTRUCTION	5.06%	4.82%	5.11%	5.21%	5.15%	5.10%	5.04%	4.99%	4.94%	4.88%	4.65%	4.44%	4.26%	4.08%
MANUFACTURING	9.51%	7.09%	6.29%	6.29%	6.20%	6.13%	6.07%	6.02%	5.96%	5.91%	5.61%	5.27%	4.91%	4.52%
TRANSPORT, COMM. & PUBLIC UTIL	3.72%	3.77%	3.21%	3.34%	3.33%	3.32%	3.31%	3.30%	3.29%	3.28%	3.24%	3.19%	3.15%	3.10%
WHOLESALE TRADE	3.68%	3.41%	2.96%	2.97%	2.93%	2.89%	2.86%	2.83%	2.79%	2.76%	2.61%	2.47%	2.34%	2.21%
RETAIL TRADE	9.68%	8.63%	8.66%	8.54%	8.46%	8.37%	8.30%	8.23%	8.16%	8.10%	7.78%	7.48%	7.20%	6.93%
FINANCE, INS. & REAL ESTATE	3.61%	5.02%	5.83%	5.64%	5.66%	5.67%	5.68%	5.69%	5.71%	5.72%	5.76%	5.79%	5.81%	5.81%
SERVICES	20.32%	25.49%	26.61%	26.89%	27.48%	28.06%	28.62%	29.18%	29.73%	30.27%	32.86%	35.31%	37.67%	39.95%
FEDERAL CIVILIAN GOVT	2.99%	2.86%	2.87%	3.02%	2.99%	2.96%	2.92%	2.89%	2.85%	2.82%	2.66%	2.50%	2.36%	2.22%
FEDERAL MILITARY GOVT	0.44%	0.34%	0.55%	0.35%	0.35%	0.34%	0.34%	0.34%	0.33%	0.33%	0.31%	0.29%	0.27%	0.25%
STATE AND LOCAL GOVT	37.06%	35.63%	35.44%	34.91%	34.61%	34.32%	34.02%	33.71%	33.40%	33.11%	31.71%	30.44%	29.26%	28.15%
PERSONAL INCOME (MILLIONS 1996 \$)	8,106.37	11,724.84	12,111.99	12,370.14	12,665.57	12,998.34	13,338.86	13,684.21	14,036.96	14,397.35	16,321.19	18,469.10	20,873.41	23,571.75
INCOME PER CAPITA (1996 \$)	17,165.88	20,305.15	20,450.60	20,627.11	20,769.67	20,981.81	21,250.03	21,519.02	21,795.34	22,076.04	23,500.60	25,023.58	26,646.07	28,349.97
W&P WEALTH INDEX (U.S. = 100)	67.72	65.14	64.61	64.60	64.26	64.24	64.22	64.20	64.18	64.16	64.06	63.96	63.87	63.77
PERSONS PER HOUSEHOLD (PEOPLE)	2.72	2.64	2.62	2.61	2.60	2.59	2.58	2.57	2.56	2.55	2.52	2.51	2.51	2.53
MEAN HOUSEHOLD INCOME (1996 \$)	40,180.33	45,050.73	43,989.00	44,202.47	44,193.27	44,399.60	44,733.13	45,071.93	45,436.67	45,808.73	47,835.87	50,329.80	53,256.07	56,633.07
NUMBER OF HOUSEHOLDS (THOUSANDS)	173.52	219.00	226.45	230.12	234.68	239.39	243.46	247.51	251.51	255.51	275.58	294.40	311.87	328.05
LESS THAN \$10,000 (2000 \$)	17.45%	14.98%	14.47%	14.29%	14.08%	13.88%	13.68%	13.48%	13.29%	13.10%	12.19%	11.04%	9.90%	8.67%
\$10,000 TO \$19,999	18.14%	15.75%	15.28%	15.10%	14.91%	14.68%	14.46%	14.24%	14.02%	13.81%	12.80%	11.58%	10.38%	9.08%
\$20,000 TO \$29,999	16.21%	15.25%	14.83%	14.67%	14.49%	14.28%	14.07%	13.87%	13.66%	13.47%	12.51%	11.33%	10.16%	8.89%
\$30,000 TO \$44,999	18.65%	18.16%	18.42%	18.52%	18.63%	18.70%	18.75%	18.78%	18.80%	18.79%	18.52%	17.58%	16.23%	14.32%
\$45,000 TO \$59,999	11.87%	12.84%	13.27%	13.43%	13.62%	13.82%	14.02%	14.23%	14.43%	14.64%	15.73%	16.97%	17.87%	18.31%
\$60,000 TO \$74,999	7.14%	8.52%	8.79%	8.89%	9.01%	9.14%	9.28%	9.41%	9.55%	9.69%	10.43%	11.57%	12.97%	14.87%
\$75,000 TO \$99,999	5.12%	7.41%	7.65%	7.73%	7.82%	7.94%	8.06%	8.19%	8.32%	8.44%	9.11%	10.16%	11.43%	13.14%
\$100,000 OR MORE	5.42%	7.08%	7.30%	7.36%	7.44%	7.56%	7.68%	7.80%	7.93%	8.05%	8.71%	9.78%	11.04%	12.71%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 12 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-30

## Demographic and Employment Baseline Projections for Economic Impact Area FL-4

	1990	2000	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
TOTAL POPULATION (THOUSANDS)	4,409.06	5,437.77	5,741.98	5,845.19	5,947.96	6,074.63	6,185.27	6,295.73	6,405.33	6,514.93	7,078.15	7,652.58	8,244.18	8,865.40
AGE UNDER 19 YEARS	24.61%	24.99%	25.61%	25.61%	25.45%	25.33%	25.18%	25.02%	24.84%	24.61%	24.05%	24.02%	23.79%	23.61%
AGE 20 TO 34 YEARS	22.27%	18.79%	18.13%	18.02%	17.92%	17.86%	17.86%	17.99%	18.20%	18.48%	19.32%	18.91%	18.37%	18.08%
AGE 35 TO 49 YEARS	19.25%	22.36%	22.31%	22.24%	22.12%	21.98%	21.79%	21.47%	21.09%	20.60%	18.46%	17.96%	18.48%	19.18%
AGE 50 TO 64 YEARS	14.54%	15.97%	16.62%	16.99%	17.30%	17.62%	17.88%	18.13%	18.39%	18.73%	19.61%	19.32%	18.09%	16.27%
AGE 65 YEARS AND OVER	19.33%	17.88%	17.32%	17.15%	17.20%	17.20%	17.29%	17.40%	17.49%	17.57%	18.56%	19.78%	21.27%	22.85%
MEDIAN AGE OF POPULATION (YEARS)	41.33	43.38	42.93	42.88	43.04	43.16	43.28	43.40	43.49	43.54	43.62	43.43	43.19	42.69
WHITE POPULATION	58.73%	49.95%	47.64%	47.00%	46.43%	45.72%	45.07%	44.44%	43.84%	43.26%	40.56%	38.09%	35.71%	33.37%
BLACK POPULATION	14.25%	16.35%	16.61%	16.68%	16.71%	16.83%	16.93%	17.04%	17.15%	17.27%	17.83%	18.30%	18.78%	19.27%
NATIVE AMERICAN POPULATION	0.16%	0.17%	0.17%	0.17%	0.17%	0.17%	0.16%	0.16%	0.16%	0.16%	0.15%	0.15%	0.14%	0.13%
ASIAN AND PACIFIC ISLANDER POP	1.07%	1.60%	1.73%	1.78%	1.83%	1.88%	1.93%	1.98%	2.02%	2.07%	2.30%	2.51%	2.73%	2.97%
HISPANIC POPULATION	25.79%	31.93%	33.86%	34.36%	34.87%	35.40%	35.90%	36.38%	36.82%	37.24%	39.16%	40.95%	42.65%	44.27%
MALE POPULATION	48.03%	48.49%	48.64%	48.68%	48.69%	48.69%	48.69%	48.69%	48.69%	48.69%	48.65%	48.57%	48.48%	48.35%
TOTAL EMPLOYMENT (THOUSANDS)	2,307.19	2,968.79	3,152.21	3,219.53	3,286.87	3,354.95	3,422.26	3,489.59	3,556.92	3,624.25	3,961.04	4,298.01	4,635.13	4,972.38
FARM EMPLOYMENT	0.91%	0.74%	0.72%	0.70%	0.69%	0.69%	0.68%	0.67%	0.66%	0.65%	0.61%	0.58%	0.56%	0.53%
AGRICULTURAL SERVICES, OTHER	1.48%	1.62%	1.63%	1.63%	1.62%	1.62%	1.61%	1.61%	1.61%	1.60%	1.59%	1.57%	1.56%	1.55%
MINING	0.18%	0.11%	0.09%	0.09%	0.09%	0.08%	0.08%	0.08%	0.08%	0.08%	0.07%	0.07%	0.07%	0.06%
CONSTRUCTION	6.34%	6.02%	6.08%	6.06%	6.05%	6.03%	6.02%	6.00%	5.99%	5.97%	5.91%	5.86%	5.81%	5.77%
MANUFACTURING	7.13%	5.02%	4.13%	4.06%	3.99%	3.93%	3.87%	3.81%	3.75%	3.69%	3.44%	3.23%	3.05%	2.89%
TRANSPORT, COMM. & PUBLIC UTIL	5.50%	5.77%	5.25%	5.23%	5.21%	5.19%	5.16%	5.15%	5.13%	5.11%	5.03%	4.96%	4.90%	4.85%
WHOLESALE TRADE	5.62%	5.46%	5.37%	5.33%	5.30%	5.28%	5.23%	5.20%	5.17%	5.14%	5.02%	4.91%	4.82%	4.74%
RETAIL TRADE	18.95%	17.52%	16.98%	16.87%	16.77%	16.68%	16.58%	16.49%	16.41%	16.33%	15.96%	15.64%	15.38%	15.14%
FINANCE, INS. & REAL ESTATE	9.76%	9.28%	9.86%	9.75%	9.65%	9.55%	9.46%	9.37%	9.28%	9.20%	8.82%	8.51%	8.24%	8.00%
SERVICES	32.18%	37.54%	38.92%	39.28%	39.62%	39.94%	40.26%	40.56%	40.85%	41.13%	42.38%	43.44%	44.35%	45.13%
FEDERAL CIVILIAN GOVT	1.33%	1.13%	1.08%	1.07%	1.05%	1.04%	1.03%	1.00%	0.99%	0.94%	0.90%	0.86%	0.83%	0.83%
FEDERAL MILITARY GOVT	0.96%	0.54%	0.54%	0.52%	0.51%	0.50%	0.49%	0.48%	0.47%	0.46%	0.42%	0.39%	0.36%	0.33%
STATE AND LOCAL GOVT	9.66%	9.25%	9.36%	9.40%	9.45%	9.49%	9.53%	9.57%	9.61%	9.64%	9.81%	9.94%	10.06%	10.16%
TOTAL EARNINGS (MILLIONS 1996 \$)	65,537.44	97,034.41	106,269.6	110,006.7	113,143.9	116,344.7	119,580.8	122,828.5	126,151.1	129,550.6	147,777.8	168,268.1	191,341.2	217,359.4
FARM EARNINGS	0.87%	0.40%	0.36%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.52%	0.51%
AGRICULTURAL SERVICES, OTHER	0.89%	0.84%	0.78%	0.80%	0.80%	0.79%	0.79%	0.79%	0.79%	0.79%	0.77%	0.76%	0.76%	0.75%
MINING	0.16%	0.15%	0.14%	0.10%	0.10%	0.10%	0.10%	0.09%	0.09%	0.09%	0.08%	0.07%	0.06%	0.06%
CONSTRUCTION	6.71%	5.99%	6.32%	6.66%	6.62%	6.58%	6.55%	6.51%	6.47%	6.43%	6.24%	6.06%	5.89%	5.72%
MANUFACTURING	8.35%	6.18%	5.43%	5.33%	5.23%	5.14%	5.07%	5.00%	4.93%	4.86%	4.51%	4.14%	3.77%	3.40%
TRANSPORT, COMM. & PUBLIC UTIL	7.46%	7.29%	6.56%	6.49%	6.45%	6.42%	6.38%	6.35%	6.31%	6.28%	6.12%	5.97%	5.82%	5.68%
WHOLESALE TRADE	7.58%	7.83%	7.67%	7.54%	7.46%	7.39%	7.32%	7.25%	7.18%	7.11%	6.79%	6.48%	6.19%	5.92%
RETAIL TRADE	12.47%	11.07%	10.51%	10.37%	10.28%	10.20%	10.12%	10.05%	9.99%	9.92%	9.60%	9.29%	8.98%	8.69%
FINANCE, INS. & REAL ESTATE	8.04%	11.60%	11.94%	11.77%	11.72%	11.66%	11.60%	11.53%	11.47%	11.41%	11.12%	10.85%	10.60%	10.35%
SERVICES	31.19%	34.10%	35.49%	35.68%	36.06%	36.43%	36.80%	37.16%	37.52%	37.88%	39.66%	41.42%	43.19%	44.95%
FEDERAL CIVILIAN GOVT	2.65%	2.31%	2.29%	2.25%	2.23%	2.21%	2.18%	2.15%	2.13%	2.10%	1.98%	1.86%	1.75%	1.65%
FEDERAL MILITARY GOVT	0.85%	0.42%	0.61%	0.60%	0.59%	0.58%	0.57%	0.56%	0.55%	0.54%	0.49%	0.45%	0.42%	0.38%
STATE AND LOCAL GOVT	12.78%	11.81%	11.90%	11.89%	11.94%	11.98%	12.01%	12.04%	12.06%	12.07%	12.12%	12.11%	12.06%	11.96%
PERSONAL INCOME (MILLIONS 1996 \$)	107,074.0	148,829.6	159,378.9	165,192.9	170,531.4	175,696.0	180,935.6	186,274.8	191,747.2	197,357.3	227,623.1	262,015.9	301,215.8	346,011.2
INCOME PER CAPITA (1996 \$)	24,284.99	27,369.63	27,756.78	28,261.34	28,670.59	28,922.93	29,252.67	29,587.47	29,935.58	30,293.09	32,158.55	34,238.88	36,536.77	39,029.40
W&P WEALTH INDEX (U.S. = 100)	115.41	108.80	109.28	109.95	110.29	110.52	110.73	110.95	111.17	111.39	112.56	113.80	115.12	116.51
PERSONS PER HOUSEHOLD (PEOPLE)	2.53	2.58	2.56	2.55	2.55	2.54	2.54	2.53	2.53	2.53	2.52	2.53	2.55	2.59
MEAN HOUSEHOLD INCOME (1996 \$)	58,793.56	67,480.78	66,681.00	67,895.22	68,779.22	69,363.89	70,141.67	70,943.78	71,786.33	72,656.22	77,391.11	83,120.33	89,836.33	97,620.00
NUMBER OF HOUSEHOLDS (THOUSANDS)	1,739.76	2,104.41	2,243.27	2,289.34	2,335.58	2,390.04	2,437.85	2,485.23	2,531.94	2,578.44	2,808.96	3,024.42	3,227.09	3,418.04
LESS THAN \$10,000 (2000 \$)	11.70%	10.26%	9.87%	9.62%	9.38%	9.26%	9.12%	8.99%	8.86%	8.73%	7.95%	7.03%	6.21%	5.46%
\$10,000 TO \$19,999	14.85%	13.50%	13.06%	12.76%	12.48%	12.32%	12.15%	11.98%	11.81%	11.64%	10.64%	9.43%	8.35%	7.37%
\$20,000 TO \$29,999	15.28%	14.03%	13.60%	13.31%	13.04%	12.88%	12.70%	12.52%	12.34%	12.17%	11.14%	9.90%	8.77%	7.75%
\$30,000 TO \$44,999	19.48%	18.48%	18.27%	18.06%	17.84%	17.70%	17.53%	17.34%	17.14%	16.94%	15.61%	13.88%	12.30%	10.87%
\$45,000 TO \$59,999	13.98%	13.54%	13.98%	14.31%	14.61%	14.79%	14.97%	15.16%	15.33%	15.49%	16.20%	16.39%	15.53%	14.03%
\$60,000 TO \$74,999	8.80%	9.50%	9.82%	10.05%	10.27%	10.40%	10.55%	10.71%	10.87%	11.03%	12.11%	13.84%	15.24%	16.47%
\$75,000 TO \$99,999	6.49%	8.98%	9.28%	9.49%	9.70%	9.83%	9.97%	10.11%	10.26%	10.41%	11.43%	12.90%	14.59%	16.53%
\$100,000 OR MORE	9.41%	11.71%	12.11%	12.40%	12.67%	12.83%	13.01%	13.20%	13.39%	13.59%	14.92%	16.82%	19.00%	21.51%

Notes: Median age, wealth index, and mean household income is the average of the original Woods & Poole values for the 9 counties in the EIA; income per capita calculated using personal income/total population for the EIA; persons per household calculated using total population/number of households for the EIA.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-31  
OCS-Related Service Bases

Texas			
TX1-1	TX-2	TX-3	
Aransas Pass (Nueces) Bayside (Aransas) Corpus Christi (Nueces) Harbor Island (Nueces) Ingleside (San Patricio) Port Aransas (Nueces) Port Isabel (Cameron) Port Mansfield (Willacy) Rockport (Aransas)	Freeport (Brazoria) Port O'Connor (Calhoun)	Galveston (Galveston) Pelican Island (Galveston) Port Arthur (Jefferson) Sabine Pass (Jefferson) Surfside (Harris)	
Louisiana			
LA-1	LA-2	LA-3	LA-4
Cameron (Cameron) Grand Chenier (Cameron) Lake Charles (Calcasieu)	Abbeville (Vermilion) Erath (Vermilion) Freshwater City (Vermilion) Intracoastal City (Vermilion) Kaplan (Vermilion) New Iberia (Iberia) Weeks Island (Iberia)	Amelia (St. Mary) Bayou Boeuf (St. Mary) Berwick (St. Mary) Cocodrie (Terrebonne) Dulac (Terrebonne) Fourchon (Lafourche) Gibson (Terrebonne) Houma (Terrebonne) Leeville (Lafourche) Louisa (St. Mary) Morgan City (St. Mary) Patterson (St. Mary) Theriot (Terrebonne)	Empire (Plaquemines) Grand Isle (Jefferson) Harvey (Jefferson) Hopedale (St. Bernard) Paradis (St. Charles) Venice (Plaquemines)
Mississippi and Alabama			
MS-1		AL-1	
Pascagoula (Jackson)		Bayou LaBatre (Mobile) Mobile (Mobile) Theodore (Mobile)	
Florida			
FL-1	FL-2	FL-3	FL-4
Panama City (Bay)	NA	NA	NA

NA means that information is not available.

The county or parish in which the service base is located is noted in parentheses.

Source: USDOl, MMS, 2001.

Table 3-32

## 2001 Hunting and Wildlife Watching in Gulf States by U.S. Residents

	Alabama	Mississippi	Louisiana	Texas	Florida	Total
Hunting						
Hunters	423,000	357,000	333,000	1,201,000	226,000	2,540,000
Resident	307,000	245,000	295,000	1,100,000	191,000	2,138,000
Nonresident	116,000	111,000	38,000	100,000	35,000	400,000
Total Expenditures (\$ million)	\$663.6	\$360.3	\$446.2	\$1,513.8	\$394.2	\$3,378.1
Trip-related	\$195.9	\$132.1	\$120.7	\$555.8	\$120.0	\$1,124.5
Equipment & Other	\$467.7	\$228.2	\$325.5	\$958.0	\$274.3	\$2,253.7
Wildlife Watching						
Total Participants	1,016,000	631,000	931,000	3,240,000	3,240,000	9,058,000
Residential	925,000	576,000	802,000	1,002,000	2,635,000	5,940,000
Nonresidential	276,000	131,000	314,000	2,930,000	1,503,000	5,154,000
Total Expenditures (\$ million)	\$626.4	\$303.5	\$168.4	\$1,283.0	\$1,575.5	\$3,956.8
Trip-related	\$79.5	\$36.1	\$55.4	\$228.8	\$675.4	\$1,075.2
Equipment & Other	\$546.9	\$267.4	\$113.0	\$1,054.2	\$900.1	\$2,881.6

Note: Detailed numbers may not add to the total number because of multiple responses and some estimates are based on small sample size (population 16 years and older).

Source: USDOJ, FWS and USDOC, Bureau of the Census, 2001.

Table 3-33

## Number of Shipwrecks by Planning Area and Lease Area

Western Planning Area		Central Planning Area	
Lease Area	Number of Wrecks	Lease Area	Number of Wrecks
Alaminos Canyon	1	Atwater Valley	4
Brazos	60	Bay Marchand	3
Corpus Christy	3	Breton Sound	13
East Breaks	7	Chandeleur	8
Galveston	113	DeSoto Canyon	3
Garden Banks	2	East Cameron	45
High Island	108	Eugene Island	92
Keathley Canyon	1	Ewing Bank	2
Matagorda Island	42	Green Canyon	14
Mustang Island	66	Grand Isle	29
North Padre Island	38	Lloyd Ridge	3
Port Isabel	2	Lund	11
Sabine Pass (Texas)	49	Mississippi Canyon	40
South Padre Island	2	Mobile	54



Table 3-34

Population and Employment Projections for Counties/Parishes Most Negatively Impacted  
by Hurricanes Katrina and Rita

Population Projections										
	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
ST. BERNARD, LA	65,364	9,288	12,188	15,090	17,982	20,878	35,537	50,333	65,310	80,569
ORLEANS, LA	454,863	153,983	164,858	175,742	186,587	197,454	253,033	309,485	366,912	425,702
PLAQUEMINES, LA	28,995	14,204	14,797	15,391	15,981	16,572	19,612	22,708	25,869	29,126
JEFFERSON, LA	452,824	405,011	411,322	417,635	423,898	430,175	462,817	496,415	531,255	568,032
CAMERON, LA	9,558	8,686	8,739	8,792	8,844	8,897	9,188	9,498	9,832	10,201
HANCOCK, MS	46,711	39,313	40,382	41,451	42,513	43,577	49,021	54,565	60,246	66,156
JACKSON, MS	135,940	130,740	132,342	133,945	135,532	137,121	145,437	154,025	162,974	172,499
HARRISON, MS	193,810	190,401	192,674	194,946	197,195	199,449	211,240	223,421	236,125	249,664
Population Level Compared with 2005 Pre-Katrina and Rita Population										
	2006	2007	2008	2009	2010	2015	2020	2025	2030	
ST. BERNARD, LA	14%	19%	23%	28%	32%	54%	77%	100%	123%	
ORLEANS, LA	34%	36%	39%	41%	43%	56%	68%	81%	94%	
PLAQUEMINES, LA	49%	51%	53%	55%	57%	68%	78%	89%	100%	
JEFFERSON, LA	89%	91%	92%	94%	95%	102%	110%	117%	125%	
CAMERON, LA	91%	91%	92%	93%	93%	96%	99%	103%	107%	
HANCOCK, MS	84%	86%	89%	91%	93%	105%	117%	129%	142%	
JACKSON, MS	96%	97%	99%	100%	101%	107%	113%	120%	127%	
HARRISON, MS	98%	99%	101%	102%	103%	109%	115%	122%	129%	
Employment Projections										
	2005	2006	2007	2008	2009	2010	2015	2020	2025	2030
ST. BERNARD, LA	24,815	3,521	4,622	5,727	6,831	7,937	13,516	19,109	24,693	30,230
ORLEANS, LA	319,010	108,204	116,348	124,566	132,833	141,177	184,328	229,214	275,644	323,380
PLAQUEMINES, LA	20,787	10,306	10,889	11,483	12,092	12,710	16,014	19,622	23,516	27,682
JEFFERSON, LA	285,724	257,505	264,084	270,694	277,335	284,006	317,861	352,350	387,339	422,688
CAMERON, LA	4,980	4,588	4,684	4,786	4,887	4,988	5,495	6,015	6,537	7,070
HANCOCK, MS	22,560	18,912	19,392	19,878	20,358	20,839	23,248	25,645	28,036	30,406
JACKSON, MS	63,692	61,128	61,902	62,673	63,447	64,219	68,096	71,985	75,876	79,760
HARRISON, MS	132,051	130,648	133,435	136,226	139,020	141,817	155,867	170,005	184,196	198,438
Employment Level Compared with 2005 Pre-Katrina and Rita Employment										
	2006	2007	2008	2009	2010	2015	2020	2025	2030	
ST. BERNARD, LA	14%	19%	23%	28%	32%	54%	77%	100%	122%	
ORLEANS, LA	34%	36%	39%	42%	44%	58%	72%	86%	101%	
PLAQUEMINES, LA	50%	52%	55%	58%	61%	77%	94%	113%	133%	
JEFFERSON, LA	90%	92%	95%	97%	99%	111%	123%	136%	148%	
CAMERON, LA	92%	94%	96%	98%	100%	110%	121%	131%	142%	
HANCOCK, MS	84%	86%	88%	90%	92%	103%	114%	124%	135%	
JACKSON, MS	96%	97%	98%	100%	101%	107%	113%	119%	125%	
HARRISON, MS	99%	101%	103%	105%	107%	118%	129%	139%	150%	

Source: Woods & Poole Economics, Inc., 2006.

Table 3-35

## Baseline Population Projections (in thousands) by Economic Impact Area

Model Year	Calendar Year	AL-1	MS-1	LA-1	LA-2	LA-3	LA-4	TX-1	TX-2	TX-3	FL-1	FL-2	FL-3	FL-4
	2005	697.06	478.42	334.83	562.44	1,045.93	1,385.14	1,651.49	587.87	5,533.80	858.08	609.81	3,421.40	5,947.96
	2006	741.71	475.94	339.74	580.30	1,149.95	1,054.72	1,686.51	596.61	5,665.75	883.12	619.51	3,476.93	6,074.63
1	2007	746.26	481.50	340.82	583.19	1,156.01	1,077.29	1,717.47	602.86	5,739.75	900.43	627.71	3,523.45	6,185.27
2	2008	750.82	487.07	341.91	586.09	1,162.08	1,099.87	1,748.38	609.11	5,813.67	917.72	635.91	3,569.92	6,295.73
3	2009	755.30	492.57	342.96	588.93	1,168.03	1,122.30	1,779.06	615.29	5,886.89	934.88	644.04	3,615.97	6,405.33
4	2010	759.80	498.09	344.03	591.80	1,174.01	1,144.78	1,809.74	621.49	5,960.20	952.03	652.17	3,662.06	6,514.93
5	2011	764.69	503.87	345.29	594.97	1,180.55	1,168.03	1,841.28	628.01	6,036.44	969.63	660.64	3,709.98	6,627.57
6	2012	769.60	509.71	346.55	598.16	1,187.14	1,191.75	1,873.36	634.60	6,113.66	987.55	669.21	3,758.53	6,742.17
7	2013	774.55	515.62	347.81	601.37	1,193.76	1,215.96	1,906.01	641.26	6,191.87	1,005.80	677.90	3,807.72	6,858.74
8	2014	779.52	521.60	349.08	604.59	1,200.41	1,240.65	1,939.22	647.99	6,271.08	1,024.39	686.70	3,857.54	6,977.33
9	2015	784.22	526.98	350.31	607.67	1,206.74	1,261.03	1,967.42	654.09	6,341.43	1,040.01	694.50	3,901.67	7,078.15
10	2016	789.39	532.95	351.71	611.07	1,213.71	1,284.85	1,999.59	660.86	6,419.86	1,057.93	703.21	3,950.95	7,193.04
11	2017	794.59	538.99	353.11	614.50	1,220.72	1,309.12	2,032.29	667.70	6,499.26	1,076.16	712.04	4,000.85	7,309.79
12	2018	799.82	545.10	354.52	617.95	1,227.77	1,333.85	2,065.52	674.61	6,579.65	1,094.71	720.97	4,051.38	7,428.44
13	2019	805.09	551.27	355.94	621.41	1,234.86	1,359.04	2,099.30	681.59	6,661.03	1,113.57	730.02	4,102.55	7,549.01
14	2020	810.06	556.84	357.30	624.70	1,241.59	1,380.13	2,128.28	687.93	6,733.60	1,129.62	738.07	4,148.07	7,652.58
15	2021	815.60	563.07	358.87	628.40	1,249.12	1,404.67	2,161.42	695.03	6,815.11	1,148.06	747.13	4,199.26	7,770.90
16	2022	821.17	569.37	360.45	632.12	1,256.70	1,429.65	2,195.07	702.19	6,897.62	1,166.79	756.30	4,251.08	7,891.05
17	2023	826.79	575.75	362.03	635.87	1,264.32	1,455.07	2,229.25	709.44	6,981.12	1,185.83	765.58	4,303.54	8,013.06
18	2024	832.44	582.19	363.62	639.63	1,271.99	1,480.94	2,263.96	716.75	7,065.64	1,205.18	774.97	4,356.65	8,136.95
19	2025	837.76	588.00	365.15	643.20	1,279.24	1,502.83	2,293.97	723.40	7,141.18	1,221.79	783.36	4,404.02	8,244.18
20	2026	843.88	594.65	366.97	647.34	1,287.66	1,528.47	2,328.77	731.01	7,227.78	1,241.11	792.98	4,458.35	8,368.43
21	2027	850.04	601.38	368.80	651.51	1,296.12	1,554.55	2,364.09	738.70	7,315.42	1,260.73	802.72	4,513.35	8,494.54
22	2028	856.25	608.18	370.63	655.71	1,304.65	1,581.07	2,399.95	746.48	7,404.13	1,280.67	812.57	4,569.03	8,622.56
23	2029	862.51	615.06	372.48	659.93	1,313.23	1,608.04	2,436.35	754.33	7,493.91	1,300.92	822.55	4,625.39	8,752.50
24	2030	868.36	621.26	374.25	663.91	1,321.31	1,631.03	2,467.95	761.46	7,574.15	1,318.38	831.46	4,675.66	8,865.40
25	2031	874.70	628.29	376.11	668.19	1,329.99	1,658.86	2,505.38	769.47	7,665.99	1,339.23	841.67	4,733.34	8,999.09
26	2032	881.10	635.39	377.98	672.49	1,338.74	1,687.16	2,543.38	777.56	7,758.95	1,360.41	852.00	4,791.73	9,134.62
27	2033	887.53	642.58	379.87	676.82	1,347.54	1,715.94	2,581.96	785.74	7,853.03	1,381.92	862.46	4,850.85	9,272.29
28	2034	894.02	649.85	381.76	681.18	1,356.40	1,745.22	2,621.13	794.01	7,948.26	1,403.77	873.06	4,910.69	9,412.02
29	2035	900.55	657.20	383.66	685.57	1,365.32	1,774.99	2,660.89	802.36	8,044.64	1,425.96	883.78	4,971.26	9,553.87
30	2036	907.13	664.63	385.57	689.99	1,374.30	1,805.28	2,701.25	810.80	8,142.19	1,448.51	894.63	5,032.59	9,697.85
31	2037	913.76	672.15	387.50	694.43	1,383.34	1,836.08	2,742.22	819.33	8,240.92	1,471.42	905.62	5,094.67	9,844.00
32	2038	920.43	679.75	389.43	698.90	1,392.44	1,867.40	2,783.81	827.95	8,340.85	1,494.68	916.74	5,157.52	9,992.35
33	2039	927.16	687.44	391.37	703.41	1,401.59	1,899.26	2,826.04	836.66	8,441.99	1,518.32	927.99	5,221.15	10,142.94
34	2040	933.93	695.22	393.32	707.94	1,410.81	1,931.66	2,868.91	845.46	8,544.35	1,542.33	939.39	5,285.55	10,295.80
35	2041	940.76	703.08	395.28	712.50	1,420.09	1,964.62	2,912.42	854.36	8,647.96	1,566.71	950.93	5,350.76	10,450.96
36	2042	947.63	711.03	397.25	717.09	1,429.43	1,998.14	2,956.60	863.35	8,752.83	1,591.49	962.60	5,416.76	10,608.46
37	2043	954.55	719.08	399.23	721.70	1,438.83	2,032.23	3,001.45	872.43	8,858.96	1,616.65	974.42	5,483.59	10,768.33
38	2044	961.53	727.21	401.22	726.35	1,448.29	2,066.90	3,046.97	881.61	8,966.38	1,642.21	986.39	5,551.23	10,930.62
39	2045	968.55	735.43	403.22	731.03	1,457.81	2,102.16	3,093.19	890.88	9,075.11	1,668.18	998.50	5,619.71	11,095.34
40	2046	975.63	743.75	405.23	735.74	1,467.40	2,138.03	3,140.11	900.25	9,185.15	1,694.56	1,010.76	5,689.04	11,262.56

Notes: Actual Woods & Poole projections for 2006 through 2010, 2015, 2020, 2025, and 2030.

Missing estimates through 2030 calculated using average annual growth rate for the 5-year period; projections after 2030 calculated using the average annual growth rate from 2025 to 2030.

Source: Woods & Poole Economics, Inc., 2006.

Table 3-36

## Waterway Depth, Traffic, and Number of Trips (2004)

Waterway	Maintained Depth (ft)	Traffic (thousand short tons)	Number of Trips	
			Foreign	Domestic
<b>Gulf Intracoastal Waterway (GIWW)</b>				
Pensacola Bay, FL to Mobile Bay, AL	12	NA	0	12,689
Mobile Bay, AL to New Orleans, LA	12, 14	21,808	0	37,991
Mississippi River, LA to Sabine River, TX	12, 10	69,489	0	146,176
Sabine River, TX to Galveston, TX	12	53,211	0	71,219
Galveston, TX to Corpus Christi, TX	11, 10.2	29,025	0	56,949
Corpus Christi, TX to Mexican Border, TX	10, 12, 7	2,748	0	5,225
<b>Texas Harbors, Channels, and Waterways</b>				
Beaumont (Neches River)	39, 40, 32	91,698	2,661	23,376
Port Arthur	38	27,570	1,088	13,196
Sabine Pass Harbor	29	929	45	3,543
Sabine-Neches Waterway	40, 37, 39, 32, 27, 20, 9, 8	150,297	3,795	72,127
<b>Louisiana Harbors, Channels, and Waterways</b>				
Atchafalaya River	12	8,826	0	25,464
Atchafalaya River, Morgan City to Gulf of Mexico	20	2,379	1,715	32,442
Barataria Bay Waterway	15 and less	219		9,273
Bayou Lafourche and Lafourche-Jump Waterway	28, 27, 27, 9	6,975	1,455	57,496
Bayou Little Caillou	10 and less	184	0	4,342
Bayou Teche and Vermilion River	8, 11, 9, 8, 5	978	0	6,716
Calcasieu River and Pass (Lake Charles)	42, 41-42, 36, 12, 7	54,768	1,981	99,735
Freshwater Bayou	12	1,282	0	17,038
GIWW, Morgan City-Port Allen Route	10	24,313	0	29,150
Innerharbor Navigation Canal	30, 15	18,774	469	22,866
Mermentau River	4, 7, 12, 10, 9, 11, 6, 8, 4, 7	831	17	5,000
Mississippi River Gulf Outlet via Venice Vicinity	16, 14	2,672	155	29,315
Port of Baton Rouge	40, 9, 12	57,083	1,173	80,523
Port of New Orleans	45, 30, 32, 36, 37, 12	78,085	4,881	259,087
Port of Plaquemines	45	54,405	819	100,813
Port of South Louisiana	45	224,187	3,780	149,972
Waterway from Empire to Gulf of Mexico	6, 9, 14	1,198	0	24,746
Waterway from GIWW to Bayou Dulac	12 or less	91	0	5,211
<b>Mississippi Harbors, Channels, and Waterways</b>				
Bayou Casotte	38	33,471	787	9,727
Pascagoula Harbor	40, 38, 38, 22, 12	34,100	999	10,733
<b>Alabama Harbors, Channels, and Waterways</b>				
Black Warrior and Tombigbee Rivers	9	22,026	0	31,498
Chickasaw Creek	25	1,520	0	1,455
Dauphin Island Bay	10 and less	NA	0	8,901
Mobile Harbor	47, 45, 40, 13-39, 40	56,212	2,320	43,226
Tennessee Tombigbee Waterway	9	6,677	0	8,593
Theodore Ship Channel	40	6,266	200	5,486

NA means that information is not available.

Source: U.S. Dept. of the Army, Corps of Engineers, 2006.

Table 3-37  
Offshore Supply Vessel Specifications

	Old, Legacy Boats	New Generation, Deepwater Boats
Length (ft)	180	220'-295'
Brake Horsepower (BHP)	1,800-3,900	3,000-7,200
Cargo Capacity (DWT)	800-1,200	1,800-5,000
Liquid Mud Capacity (bbl)	800-1,200	3,000-6,000
Bulk Capacity (ft <sup>3</sup> )	1,000-2,000	3,000-9,000
Station Keeping	Traditional, single bow thruster	Joystick, multi-thruster
Dynamic Positioning	No	Yes
Cost to build (million \$)	\$2.5-\$6	\$15-\$30

Source: Barrett, 2005.

Table 3-38  
Existing Coastal Infrastructure Related to OCS Activities in the Gulf of Mexico

Infrastructure	Texas	Louisiana	Mississippi and Alabama	Florida	Total
Pipeline Landfalls <sup>1</sup>	13	106	7	0	126
Service Bases <sup>2</sup>	16	29	4	1	50
Helicopter Hubs <sup>2</sup>	39	84	5	0	128
Platform Fabrication Yards <sup>2</sup>	7	31	5	0	43
Shipyards <sup>2</sup>	27	38	20	9	94
Pipecoating Plants <sup>2</sup>	7	7	2	3	19
Refineries <sup>2</sup>	19	14	4	0	37
Petrochemical Plants <sup>2</sup>	20	9	0	0	29
Gas Processing Plants <sup>2</sup>	14	28	6	0	48
Pipeline Shore Facilities <sup>2</sup>	13	37	0	0	50
Barge Terminals <sup>2</sup>	4	5	0	0	9
Tanker Ports <sup>2</sup>	4	6	0	0	10
Waste Disposal Plants <sup>2</sup>	9	21	4	0	34

<sup>1</sup> Source: USDOJ, MMS, 2006c.

<sup>2</sup> Source: The Louis Berger Group, Inc., 2004.

Table 3-39

## Summary of Federal Rules Governing OCS Discharges and Injection

MMS Planning Region	Rules	Key Features
Western Planning Area	69 FR No. 245 76740 NPDES General Permit Rules	General permit restricting discharges to 29 mg/l monthly average and 49 mg/l maximum daily total oil and grease
Territorial Seas of Texas	70 FR No. 171 53008 NPDES General Permit Rules	General permit restricting discharges to 29 mg/l monthly average and 49 mg/l maximum daily total oil and grease
Central Planning Area	69 FR No. 245 76740 NPDES General Permit Rules  69 FR No. 194 60150 NPDES General Permit Rules	General permit for >200 m of water depth, restricting discharges to 29 mg/l monthly and 49 mg/l maximum daily total oil and grease
Eastern Planning Area	69 FR No. 194 60150 NPDES General Permit Rules	General permit for > 200 m of water depth, restricting discharges to 29 mg/l monthly average and 49 mg/l maximum daily total oil and grease
All of the above citations contain rules restricting discharge of domestic and sanitary sewage (including standards) and prohibiting discharge of trash in each of the MMS planning regions. Facilities located offshore of USEPA Region 6 are subject to a general Clean Water Act permit that covers all facilities in certain geographic locations. Offshore exploration and production facilities in Regions 4, 9, and 10 are also permitted individually in some cases. USEPA Regions 6 and 9 has a Memorandum of Agreement with MMS, whereby MMS agrees to conduct Clean Water Act preliminary inspections for USEPA.		
All	CWA § 308, 402, 403	Discharge rate limitations and monitoring; toxicity limitations; minimize discharge of surfactants, dispersants, and detergents; no rubbish, trash, or refuse; and no discharge in areas of biological concern
All	40 CFR 144	Underground injection control program rules

Table 3-40

Gulf of Mexico Region Counties with Concentrated Levels  
of Oil- and Gas-Related Infrastructure

Low Concentration		Medium Concentration		High Concentration	
County/Parish	State	County/Parish	State	County/Parish	State
Escambia	FL	Bay	FL	Mobile	AL
Manatee	FL	Hillsborough	FL	Cameron	LA
Ascension	LA	Calcasieu	LA	Jefferson	LA
Lafayette	LA	East Baton Rouge	LA	Lafourche	LA
St. John the Baptist	LA	Iberia	LA	Plaquemines	LA
West Baton Rouge	LA	Orleans	LA	St. Mary	LA
Harrison	MS	St. Bernard	LA	Brazoria	TX
Aransas	TX	St. Charles	LA	Galveston	TX
Cameron	TX	St. James	LA	Harris	TX
Chambers	TX	Terrebonne	LA	Jefferson	TX
Fort Bend	TX	Vermilion	LA		
Matagorda	TX	Jackson	MS		
Montgomery	TX	Calhoun	TX		
Orange	TX	Nueces	TX		
		San Patricio	TX		

Source: Based on data from The Louis Berger Group, Inc. (2004).

Table 3-41

## Baseline Employment Projections (in thousands) by Economic Impact Area

Model Year	Calendar Year	AL-1	MS-1	LA-1	LA-2	LA-3	LA-4	TX-1	TX-2	TX-3	FL-1	FL-2	FL-3	FL-4
	2005	355.46	251.51	175.16	295.02	606.81	820.99	716.70	289.19	3,186.72	473.65	317.83	1,918.08	3,286.87
	2006	380.45	248.27	179.08	307.30	668.71	591.35	730.94	294.37	3,272.69	488.53	323.52	1,958.06	3,354.95
1	2007	385.13	252.58	181.26	311.44	675.32	610.34	745.17	299.12	3,333.08	500.29	329.19	1,997.55	3,422.26
2	2008	389.81	256.89	183.44	315.57	681.90	629.42	759.41	303.86	3,393.48	512.06	334.84	2,037.04	3,489.59
3	2009	394.47	261.20	185.63	319.69	688.47	648.58	773.64	308.58	3,453.88	523.82	340.50	2,076.54	3,556.92
4	2010	399.13	265.51	187.84	323.81	695.02	667.82	787.88	313.30	3,514.28	535.58	346.13	2,116.02	3,624.25
5	2011	403.74	269.84	190.06	327.91	701.48	687.42	802.11	318.00	3,574.69	547.32	351.75	2,155.52	3,691.61
6	2012	408.40	274.23	192.30	332.06	708.00	707.60	816.60	322.78	3,636.13	559.31	357.47	2,195.74	3,760.22
7	2013	413.12	278.70	194.58	336.27	714.58	728.36	831.35	327.62	3,698.63	571.58	363.28	2,236.72	3,830.10
8	2014	417.90	283.25	196.87	340.53	721.22	749.74	846.37	332.54	3,762.21	584.11	369.18	2,278.47	3,901.29
9	2015	422.18	287.15	198.94	344.32	727.31	765.82	859.04	336.81	3,816.31	594.28	374.26	2,313.48	3,961.04
10	2016	426.74	291.50	201.20	348.39	733.67	785.86	873.28	341.48	3,876.75	606.01	379.86	2,352.98	4,028.43
11	2017	431.34	295.92	203.48	352.52	740.09	806.42	887.75	346.20	3,938.15	617.96	385.55	2,393.15	4,096.97
12	2018	436.00	300.41	205.79	356.69	746.56	827.52	902.46	351.00	4,000.51	630.16	391.33	2,434.00	4,166.68
13	2019	440.70	304.97	208.13	360.91	753.09	849.17	917.42	355.86	4,063.87	642.59	397.19	2,475.56	4,237.57
14	2020	444.96	308.92	210.23	364.70	759.12	866.01	930.22	360.13	4,118.50	652.91	402.29	2,510.96	4,298.01
15	2021	449.47	313.29	212.54	368.76	765.39	886.43	944.46	364.76	4,179.00	664.63	407.88	2,550.45	4,365.43
16	2022	454.03	317.73	214.86	372.86	771.72	907.34	958.91	369.44	4,240.39	676.55	413.55	2,590.57	4,433.91
17	2023	458.63	322.23	217.22	377.02	778.10	928.74	973.58	374.18	4,302.68	688.69	419.30	2,631.32	4,503.47
18	2024	463.27	326.79	219.60	381.21	784.53	950.64	988.48	378.99	4,365.88	701.05	425.14	2,672.70	4,574.12
19	2025	467.51	330.79	221.75	385.00	790.49	968.13	1,001.40	383.25	4,421.00	711.49	430.26	2,708.43	4,635.13
20	2026	471.97	335.18	224.10	389.04	796.71	988.88	1,015.63	387.83	4,481.59	723.20	435.84	2,747.93	4,702.58
21	2027	476.48	339.63	226.47	393.13	802.98	1,010.07	1,030.07	392.47	4,543.01	735.10	441.50	2,788.00	4,771.01
22	2028	481.04	344.13	228.87	397.26	809.29	1,031.72	1,044.71	397.16	4,605.27	747.19	447.22	2,828.65	4,840.44
23	2029	485.64	348.70	231.30	401.43	815.66	1,053.83	1,059.56	401.90	4,668.39	759.49	453.03	2,869.90	4,910.87
24	2030	489.85	352.74	233.49	405.22	821.58	1,071.88	1,072.57	406.15	4,723.95	770.03	458.17	2,905.91	4,972.38
25	2031	494.53	357.42	235.97	409.48	828.04	1,094.85	1,087.81	411.00	4,788.69	782.70	464.11	2,948.28	5,044.73
26	2032	499.26	362.16	238.47	413.78	834.56	1,118.31	1,103.27	415.92	4,854.32	795.58	470.13	2,991.28	5,118.14
27	2033	504.03	366.97	240.99	418.12	841.12	1,142.28	1,118.96	420.89	4,920.85	808.68	476.23	3,034.90	5,192.62
28	2034	508.85	371.84	243.55	422.51	847.74	1,166.76	1,134.86	425.92	4,988.29	821.99	482.41	3,079.15	5,268.19
29	2035	513.71	376.77	246.12	426.95	854.40	1,191.77	1,150.99	431.01	5,056.66	835.51	488.67	3,124.05	5,344.85
30	2036	518.62	381.77	248.73	431.44	861.13	1,217.31	1,167.35	436.16	5,125.96	849.26	495.01	3,169.61	5,422.63
31	2037	523.58	386.84	251.37	435.97	867.90	1,243.40	1,183.94	441.37	5,196.21	863.24	501.43	3,215.83	5,501.53
32	2038	528.58	391.97	254.03	440.55	874.72	1,270.05	1,200.77	446.65	5,267.43	877.45	507.94	3,262.72	5,581.59
33	2039	533.64	397.17	256.72	445.17	881.60	1,297.27	1,217.84	451.98	5,339.62	891.89	514.53	3,310.30	5,662.81
34	2040	538.74	402.44	259.44	449.85	888.54	1,325.07	1,235.15	457.39	5,412.80	906.56	521.20	3,358.58	5,745.22
35	2041	543.89	407.78	262.19	454.57	895.53	1,353.47	1,252.71	462.85	5,486.98	921.48	527.96	3,407.55	5,828.82
36	2042	549.08	413.19	264.96	459.35	902.57	1,382.48	1,270.51	468.38	5,562.18	936.65	534.81	3,457.24	5,913.64
37	2043	554.33	418.68	267.77	464.17	909.67	1,412.11	1,288.57	473.98	5,638.41	952.06	541.75	3,507.66	5,999.70
38	2044	559.63	424.23	270.61	469.05	916.83	1,442.37	1,306.89	479.65	5,715.69	967.73	548.78	3,558.81	6,087.00
39	2045	564.98	429.86	273.47	473.98	924.04	1,473.29	1,325.46	485.38	5,794.02	983.66	555.90	3,610.70	6,175.58
40	2046	570.38	435.57	276.37	478.95	931.30	1,504.86	1,344.30	491.18	5,873.43	999.85	563.11	3,663.35	6,265.45

Notes: Actual Woods & Poole projections for 2006 through 2010, 2015, 2020, 2025, and 2030.  
Missing estimates through 2030 calculated using average annual growth rate for the 5-year period; projections after 2030 calculated using the average annual growth rate from 2025 to 2030.

Source: Woods & Poole Economics, Inc., 2006.

Table 4-1

## Projected Oil and Gas Production in the Gulf of Mexico OCS

	Proposed Action	OCS Program (2007-2046)
Western Gulf of Mexico		
Reserve/Resource Production		
Oil (BBO)	0.242-0.423	6.629-8.060
Gas (Tcf)	1.644-2,647	52.211-59.961
Central Gulf of Mexico		
Reserve/Resource Production		
Oil (BBO)	0.776-1.292	21.933-24.510
Gas (Tcf)	3.236-5.229	90.155-102.761

BBO = billion barrels of oil.

Tcf = trillion cubic feet.



Table 4-2

## Offshore Scenario Information Related to the Proposed Action in the Western Planning Area

	Offshore Subareas*							Total WPA**
	W0-60	W60-200	W200-400	W400-800	W800-1600	W1600-2400	W>2400	
Wells Drilled								
Exploration and Delineation Wells	23-36	5-7	1	3-4	5-10	2-3	3-5	42-66
Development Wells	64-89	13-15	6-7	9-13	48-75	9-15	6-8	155-221
Oil Wells	3-5	2-2	1-2	6-8	29-45	6-9	3-5	51-76
Gas Wells	61-84	10-13	5-5	3-5	20-30	3-6	2-3	105-146
Workovers and Other Well Activities	392-539	77-91	35-42	56-77	294-455	56-91	35-49	945-1,344
Production Structures								
Installed	21-31	2	1	1	1-3	1-2	1	28-41
Removed Using Explosives	9-15	1	0	0	0	0	0	11-17
Total Removed	13-22	2	1	1	1-3	1	1	20-31
Method of Oil Transportation***								
Percent Piped	99%	100%	100%	100%	0% -50%	0% -100%	0 -100%	41% -> 99%
Percent Barged	1%	0%	0%	0%	0%	0%	0%	< 1%
Percent Tankered	0%	0%	0%	0%	0% -50%	0% -100%	0% -100%	0% -59%
Length of Installed Pipelines (km)#	60-420	NA	NA	NA	NA	NA	NA	130-760
Blowouts	1	0	0	0	0-1	0	0	1-2
Service-Vessel Trips (1,000 round trips)	23-33	3	1	16-17	18-51	16-33	16-17	94-155
Helicopter Operations (1,000 operations)	300-680	30-44	14-22	14-22	14-66	14-44	14-22	400-900

\*See Figure 4-1.

\*\* Subarea totals may not add up to the planning area total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-3

Offshore Scenario Information Related to the Proposed Action in the Central Planning Area

	Offshore Subareas*								Total CPA**
	C0-60 (western)	C0-60 (eastern)	C60-200	C200-400	C400-800	C800-1600	C1600-2400	C>2400	
Wells Drilled									
Exploration and Delineation Wells	14 - 16	3	9 - 12	7 - 11	9 - 14	10 - 18	7 - 12	6 - 10	65 - 96
Development Wells	51 - 59	9 - 10	22 - 26	75 - 107	61 - 83	56 - 91	37 - 59	20 - 33	330 - 468
Oil Wells	13 - 15	2 - 2	7 - 8	43 - 61	36 - 49	33 - 54	22 - 36	12 - 20	168 - 245
Gas Wells	38 - 44	7 - 8	15 - 18	32 - 46	25 - 33	23 - 37	15 - 23	8 - 14	162 - 223
Workovers and Other Well Activities	309 - 357	55 - 63	133 - 161	455 - 651	371 - 504	343 - 553	224 - 357	119 - 203	2,009 - 2,849
Production Structures									
Installed	17 - 18	3	2 - 3	1 - 3	1 - 3	1 - 4	1 - 3	2	28 - 39
Removed Using Explosives	10	2	2	0 - 1	0 - 1	0	0	0	14 - 16
Total Removed	14	2 - 3	2 - 3	1 - 3	1 - 3	1 - 4	1 - 3	2	24 - 35
Method of Oil Transportation***									
Percent Piped	99%	99%	100%	100%	100%	0% - 50%	0% - 100%	0% - 100%	57% - >99%
Percent Barged	1%	1%	0%	0%	0%	0%	0%	0%	<1%
Percent Tankered	0%	0%	0%	0%	0%	0% - 50%	0% - 100%	0% - 100%	0% - 43%
Length of Installed Pipelines (km)#	40 - 720	10 - 130	NA	NA	NA	NA	NA	NA	130 - 1,700
Blowouts	0	0	0	0	0 - 1	0 - 1	0	00	2 - 3
Service-Vessel Trips (1,000 round trips)	18 - 19	3	3 - 4	4 - 7	19 - 52	19 - 68	18 - 51	33 - 34	117 - 239
Helicopter Operations (1,000 operations)	607 - 1,016	107 - 169	71 - 169	36 - 169	36 - 169	36 - 226	36 - 169	71 - 113	1,000 - 2,200

\* See Figure 4-1.

\*\* Subarea totals may not add up to the planning area total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-4

Offshore Scenario Information Related to OCS Program Activities  
in the Gulf of Mexico for the Years 2007-2046

	Water Depths*							Total OCS**
	0-60	60-200	200-400	400-800	800-1600	1600-2400	>2400	
Wells Drilled								
Exploration and Delineation Wells	3,312 - 4,013	1,928 - 2,508	222 - 297	347 - 460	624 - 853	470 - 661	432 - 641	7,335 - 9,433
Development Wells	9,654 - 10,174	4,946 - 5,521	1,470 - 1,553	1,960 - 2,065	5,946 - 6,885	5,688 - 7,300	1,680 - 2,408	31,342 - 35,905
Oil Wells	1,667 - 1,722	1,450 - 1,581	728 - 761	1,248 - 1,306	3,813 - 4,387	3,904 - 4,908	1,042 - 1,482	13,850 - 16,148
Gas Wells	7,986 - 8,451	3,496 - 3,940	742 - 792	712 - 759	2,133 - 2,498	1,784 - 2,392	638 - 926	17,492 - 19,757
Workovers and Other Well Activities	58,765 - 61,930	30,107 - 33,607	8,946 - 9,450	11,928 - 12,565	36,190 - 41,909	34,615 - 44,436	10,227 - 14,658	190,778 - 218,555
Production Structures								
Installed	2,465 - 2,608	314 - 383	16 - 19	23 - 25	73 - 103	46 - 90	21 - 34	2,958 - 3,262
Removed Using Explosives	4,111 - 4,149	109 - 118	2 - 4	1	0	0	0	4,225 - 4,270
Total Removed	5,097 - 5,137	693 - 714	22 - 26	38 - 17	87 - 107	46 - 70	14 - 26	5,997 - 6,097
Method of Oil Transportation***								
Percent Piped	99%	100%	100%	100%	91% - 100%	95% - 100%	90% - 100%	94% - >99%
Percent Barged	1%	0%	0%	0%	0%	0%	0%	<1%
Percent Tankered	0%	0%	0%	0%	0% - 9%	0% - 5%	0% - 10%	0% - 6%
Length of Installed Pipelines (km)#	5,320 - 31,690	NA	NA	NA	NA	NA	NA	9,470 - 66,550
Blowouts	78 - 85	41 - 48	10 - 11	14 - 15	39 - 46	37 - 48	13 - 18	232 - 272
Service-Vessel Trips (1,000 trips)	2,781 - 2,965	570 - 683	82 - 91	459 - 501	1,425 - 1,951	976 - 1,750	421 - 667	6,714 - 8,608
Helicopter Trips (1,000 trips)	31,633 - 47,929	4,047 - 7,055	206 - 350	296 - 461	954 - 1,917	592 - 1,664	269 - 624	38,000 - 60,000

\* See Figure 4-1.

\*\* Water depth totals may not add up to the OCS total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-5

Offshore Scenario Information Related to OCS Program Activities  
in the Western Planning Area for the Years 2007-2046

	Offshore Subareas*							Total WPA**
	W0-60	W60-200	W200-400	W400-800	W800-1600	W1600-2400	W>2400	
Wells Drilled								
Exploration and Delineation Wells	888 - 1,097	787 - 858	64 - 83	120 - 155	203 - 276	130 - 197	133 - 198	2,325 - 2,864
Development Wells	2,652 - 2,826	1,370 - 1,547	269 - 290	301 - 337	2,145 - 2,490	933 - 1,505	491 - 668	8,160 - 9,662
Oil Wells	135 - 140	205 - 230	74 - 78	177 - 198	1,247 - 1,455	549 - 890	329 - 439	2,716 - 3,430
Gas Wells	2,517 - 2,685	1,165 - 1,317	196 - 212	124 - 139	898 - 1,035	384 - 615	162 - 229	5,446 - 6,232
Workovers and Other Well Activities	16,142 - 17,199	8,337 - 9,415	1,638 - 1,764	1,834 - 2,051	13,055 - 15,155	5,677 - 9,163	2,989 - 4,067	49,672 - 58,814
Production Structures								
Installed	666 - 710	99 - 115	5 - 6	7 - 8	34 - 43	14 - 31	5 - 9	830 - 922
Removed Using Explosives	632 - 661	104 - 112	1	1	0	0	0	738 - 775
Total Removed	864 - 904	149 - 160	4 - 5	8 - 10	34 - 43	8 - 18	5 - 8	1,072 - 1,148
Method of Oil Transportation***								
Percent Piped	99%	100%	100%	100%	88% - 100%	94% - 100%	83% - 100%	92 - >99%
Percent Barged	1%	0%	0%	0%	0%	0%	0%	<1%
Percent Tankered	0%	0%	0%	0%	0% - 12%	0% - 6%	0% - 17%	0% - 8%
Length of Installed Pipelines (km)#	2,340 - 9,580	NA	NA	NA	NA	NA	NA	5,050 - 22,960
Blowouts	21 - 24	13 - 14	2	3	14 - 17	6 - 10	4 - 5	63 - 75
Service-Vessel Trips (1,000 round trips)	753 - 810	181 - 206	18 - 21	129 - 148	635 - 796	266 - 563	105 - 179	2,087 - 2,722
Helicopter Operations (1,000 operations)	9,147 - 13,861	1,360 - 2,245	69 - 117	96 - 156	467 - 840	192 - 605	69 - 176	11,400 - 18,000

\* See Figure 4-1.

\*\* Subarea totals may not add up to the planning area total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-6

Offshore Scenario Information Related to OCS Program Activities  
in the Central Planning Area for the Years 2007-2046

	Offshore Subareas*								Total CPA**
	C0 - 60 (western)	C0 - 60 (eastern)	C60 - 200	C200 - 400	C400 - 800	C800 - 1600	C1600 - 2400	C>2400	
Wells Drilled									
Exploration and Delineation Wells	2,060 - 2,479	364 - 437	1,141 - 1,650	158 - 214	227 - 305	421 - 577	340 - 464	299 - 443	5,010 - 6,569
Development Wells	5,952 - 6,246	1,050 - 1,102	3,577 - 3,974	1,200 - 1,263	1,658 - 1,727	3,801 - 4,395	4,754 - 5,795	1,189 - 1,740	23,181 - 26,243
Oil Wells	1,303 - 1,345	230 - 237	1,245 - 1,351	654 - 683	1,071 - 1,108	2,566 - 2,932	3,355 - 4,018	713 - 1,043	11,137 - 12,718
Gas Wells	4,649 - 4,901	820 - 865	2,331 - 2,623	546 - 580	588 - 620	1,235 - 1,463	1,400 - 1,777	476 - 697	12,045 - 13,526
Workovers and Other Well Activities	36,230 - 38,021	6,393 - 6,710	21,770 - 24,192	7,308 - 7,686	10,094 - 10,514	23,135 - 26,754	28,938 - 35,273	7,238 - 10,591	141,106 - 159,741
Production Structures									
Installed	1,529 - 1,613	270 - 285	215 - 268	11 - 13	16 - 17	39 - 60	32 - 59	16 - 25	2,128 - 2,340
Removed Using Explosives	3,091 - 3,092	388 - 396	5 - 6	1 - 3	0	0	0	0	3,487 - 3,495
Total Removed	3,598 - 3,598	635 - 635	544 - 554	18 - 21	7 - 30	53 - 64	38 - 52	9 - 18	4,925 - 4,949
Method of Oil Transportation***									
Percent Piped	99%	99%	100%	100%	100%	92% - 100%	95% - 100%	93% - 100%	95% - >99%
Percent Barged	1%	1%	0%	0%	0%	0%	0%	0%	<1%
Percent Tankered	0%	0%	0%	0%	0%	0% - 8%	0% - 5%	0% - 7%	0% - 5%
Length of Installed Pipelines (km)#	2,530 - 18,790	450 - 3,320	NA	NA	NA	NA	NA	NA	4,420 - 43,590
Blowouts	48 - 52	8 - 9	28 - 34	8 - 9	11 - 12	25 - 30	31 - 38	9 - 13	169 - 197
Service-Vessel Trips (1,000 round trips)	1,724 - 1,832	304 - 324	389 - 477	64 - 71	330 - 353	790 - 1,155	711 - 1,188	316 - 488	4,627 - 5,887
Helicopter Operations (1,000 operations)	19,112 - 28,952	3,374 - 5,115	2,688 - 4,810	138 - 233	200 - 305	488 - 1,077	400 - 1,059	200 - 449	26,600 - 42,000

\* See Figure 4-1.

\*\* Subarea totals may not add up to the planning area total because of rounding.

\*\*\* 100% of gas is assumed to be piped.

# Projected length of OCS pipelines does not include length in State waters.

NA means that information is not available.

Table 4-7

## Annual Volume of Produced Water Discharged by Depth (MMbbl)

Year	Water Depth							Total
	0-60 m	60-200 m	200-400 m	400-800 m	800-1600 m	1600-2400 m	>2400 m	
1996	397	129	10	10	no discharge	no discharge	no discharge	546
1997	415	129	10	8	no discharge	no discharge	no discharge	561
1998	451	146	12	11	no discharge	no discharge	no discharge	621
1999	466	152	14	12	0.01	no discharge	no discharge	644
2000	460	159	14	14	1	no discharge	no discharge	647
2001	502	153	12	17	2	no discharge	no discharge	686
2002	428	150	19	20	1	0.01	no discharge	617
2003	429	152	18	20	4	3	no discharge	626
2004	407	129	17	20	9	1	0.01	583
2005	296	85	12	19	15	4	0.04	431

Source: USDO, MMS, 2006b.

Table 4-8

Average Annual Emission Rates  
from OCS Infrastructures in the Gulf of Mexico

Infrastructure	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
Platforms (tons/platform/year)	44.1	52.1	2.0	20.7	0.45	0.45
Exploration Well (tons/well)	40.5	4.3	6.8	0.4	1.0	1.0
Development Well (tons/well) <sup>1</sup>	21.5	5.7	2.5	2.1	0.60	0.60

<sup>1</sup> Assumes a 3,050-m hole, a 35-day drilling period in less than 400-m water depth, a 60-day drilling period in greater than 400-m water depth, and a power consumption of 180 horsepower hour/foot.

Source: Wilson et al., 2004.

Table 4-9

Projected New Coastal Infrastructure Related to OCS Activities in  
the Gulf of Mexico from the Years 2007-2046

Infrastructure	Texas	Louisiana	Mississippi and Alabama	Florida	OCS Program Total
Pipeline Landfalls	6-8	25-36	1-3	0	32-47
Service Bases	0	0	0	0	0
Helicopter Hubs	0	0	0	0	0
Platform Yards	0	0	0	0	0
Shipyards	0	0	0	0	0
Pipecoating Plants	0	0	0	0	0
Refineries	0	0	0	0	0
Petrochemical Plants	0	0	0	0	0
Gas Processing Plants	0-2	0-3	0-9	0	0-14
Pipeline Shore Facilities	1-2	3-5	0-1	0	4-6
Barge Terminals	0	0	0	0	0
Tanker Ports	0	0	0	0	0
Waste Disposal Plants	0	0	0	0	0

Table 4-10

LNG Proposed or Licensed Projects (Deepwater Ports) in the Gulf of Mexico

Project Name	Affiliations	Proposed Location (Area and Block)	Proposed Capacity* (Cf/d)	USDOT Docket Number
Gulf Gateway (formerly Energy Bridge)	Excelebrate Energy	West Cameron 603	690 million	14294
Gulf Landing	Shell US Gas & Power	West Cameron 213	1.2 billion	16860
Main Pass Energy Hub	Freeport McMoRan Energy	Main Pass 299	1.6 billion	17696
Port Pelican <sup>1</sup>	ChevronTexaco	Vermilion 140	N/A	14134
Bienville Offshore Energy Terminal	TORP Terminal LP	Main Pass 258	1.4 billion	24644

\* Peak capacity estimates.

Cf/d = cubic feet per day.

<sup>1</sup>The applicant has put the Port Pelican project on hold indefinitely.

Table 4-11  
Average Annual Inputs (1990-1999)  
of Petroleum Hydrocarbons to Coastal Waters of the Gulf of Mexico

	Western GOM		Eastern GOM	
	(tonnes)	(bbl)	(tonnes)	(bbl)
Extraction of Petroleum				
Platforms Spills	90	630	trace <sup>1</sup>	trace
Atmospheric Releases (VOC's)	trace	trace	trace	trace
Permitted Produced-Water Discharges	590	4,130	trace	trace
Sum of Extraction Inputs	680	4,760	trace	trace
Transportation of Petroleum				
Pipelines Spills	890	6,230	trace	trace
Tank Vessel Spills	770	5,390	140	980
Coastal Facilities Spills <sup>2</sup>	740	5,180	10	70
Atmospheric Releases (VOC's) <sup>3</sup>	trace	trace	trace	trace
Sum of Transportation Inputs <sup>4</sup>	2,400	16,800	160	1,120
Consumption of Petroleum				
Land-based Sources <sup>5</sup>	11,000	77,000	1,600	11,200
Recreational Vessels	770	5,390	770	5,390
Vessel >100 GT (spills)	100	700	30	210
Vessel >100 GT (operational discharges)	trace	trace	trace	trace
Vessel <100 GT (operational discharges)	trace	trace	trace	trace
Deposition of Atmospheric Releases (VOC's)	90	630	60	420
Aircraft Jettison of Fuel	NA	NA	NA	NA
Sum of Consumption	12,000	84,000	2,500	17,500

## Notes:

<sup>1</sup>Trace indicates less than 70 bbl (10 tonnes).

<sup>2</sup>Coastal facility spills does not include spills in coastal waters related to exploration and production spills or spills from vessels. The category "Coastal Facilities" includes the following: aircraft, airport, refined product in coastal pipeline, industrial facilities, marinas, marine terminals, military facilities, municipal facilities, reception facilities, refineries, shipyards, and storage tanks.

<sup>3</sup>Volatization of light hydrocarbons during tank vessel loading, washing, and voyage.

<sup>4</sup>Sums may not match.

<sup>5</sup>Inputs from land-based sources during consumption of petroleum are the sum of diverse sources. Three categories of wastewater discharge are summed: municipal, industrial (not related to petroleum refining), and petroleum refinery wastewater. Urban runoff is included. It results from oil droplets from vehicles washing into waterways from parking lots and roads and the improper disposal of oil containing consumer products.

GT = gross tons.

NA = not available.

VOC's = volatile organic compounds.

Source: NRC, 2003.



Table 4-12  
Average Annual Inputs (1990-1999)  
of Petroleum Hydrocarbons to Offshore Waters of the Gulf of Mexico

	Western GOM		Eastern GOM	
	(tonnes)	(bbl)	(tonnes)	(bbl)
Natural Sources				
Seeps	70,000	490,000	70,000	490,000
Extraction of Petroleum				
Platforms	50	350	trace <sup>1</sup>	trace
Atmospheric Releases (VOC's)	60	420	trace	trace
Permitted Produced-Water Discharges	1,700	11,900	trace	trace
Sum of Extraction	1,800	12,600	trace	trace
Transportation of Petroleum				
Pipelines	60	420	trace	trace
Tank Vessels	1,500	10,500	10	70
Atmospheric Releases (VOC's)	trace	trace	trace	trace
Sum of Transportation	1,600	11,200	10	70
Consumption of Petroleum				
Land-based Consumption <sup>2</sup>	NA	NA	NA	NA
Recreational Vessel Consumption <sup>3</sup>	NA	NA	NA	NA
Vessel >100 GT (spill)	120	840	70	490
Vessel >100 GT (operational discharges)	25	175	trace	trace
Vessel <100 GT (operational discharges)	trace	trace	trace	trace
Deposition of Atmospheric Releases (VOC's)	1,200	8,400	1,600	11,200
Aircraft Jettison of Fuel	80	560	80	560
Sum of Consumption <sup>4</sup>	1,400	9,800	1,800	12,600

## Notes:

<sup>1</sup>Trace indicates less than 70 bbl (10 tonnes).

<sup>2</sup>Limited to coastal zone.

<sup>3</sup>Limited to within 3 mi of the coast.

<sup>4</sup>Sums may not match.

GT = gross tons.

NA = not available.

VOC's = volatile organic compounds.

Source: NRC, 2003.

Table 4-13

Annual Oil-Spill Occurrence within Coastal and Offshore Waters  
of the Gulf of Mexico (Gulfwide Estimates)

Source	Number of Spills ≥1,000 bbl	Assumed Size (bbl)	Source	Number of Spills <1,000 bbl	Assumed Size (bbl)
<b>Offshore Spills</b>			<b>Offshore Spills</b>		
Total All Sources	1 per year		Total All Sources	1,500-1,800 per year	5
Total Non-OCS Sources			Non-OCS Sources	1,000-1,300 per year	5
Tank Ship	<1 per year	14,600	Tank Ship	5-10 per year	5
Tank Barge	<1 per year	3,000	Tank Barge	2-5 per year	5
Total OCS Program Sources			Unknown and Other	1,000-1,200 per year	5
Facility	<1 per year	1,500	Total OCS Program Sources (MODU, platform, pipeline)	450-500 per year	5
Pipeline	1 per year	4,600			
Shuttle Tanker	1 in next 40 years	14,600			
<b>Coastal Spills</b>			<b>Coastal Spills</b>		
Total All Sources	1 per year		Total All Sources	440-650 per year	5
Non-OCS Sources	3 per 6 years		Non-OCS Sources	400-600 per year	
Tank Ship	1 per 6 years	4,500	Tank Ship	2 per year	5
Tank Barge	1 per 6 years	3,000	Tank Barge	1 per year	5
Other	1 per 6 years	4,200	Unknown and Other	400-600 per year	5
Total OCS Sources	1 per 6 years	4,200	Total OCS Sources	40-50 per year	5

Note: The estimated number of offshore OCS Program spills ≥1,000 bbl was determined using 40-year program resource projections (2007-2042) and Anderson and LaBelle (2000) spill rates (Table 4-15). For offshore non-OCS spills ≥1,000 bbl, coastal OCS and non-OCS spills ≥1,000, and all sources of spills <1,000 bbl, the historical number of spills per year is presented (Dickey, 2006). The assumed size of spills ≥1,000 bbl was obtained from Anderson and LaBelle (2000), and the assumed size of spills <1,000 bbl is the median size of all spills 1-999 bbl (1996-2001).

Table 4-14

## OCS and Non-OCS Program Spill Rates

OCS Program Spill Rates	
<1,000 bbl	
≤1 bbl	3,357 spills/BBO handled
≥1 and < 50 bbl	91 spills/BBO handled
≥50 bbl and <1,000 bbl	7 spills/BBO handled
≥1,000 bbl	
Facility	0.13 spills/BBO handled
Pipeline	1.38 spills/BBO handled
Shuttle Tanker	0.73 spills/BBO handled
Offshore	0.29 spills/BBO handled
Coastal	0.44 spills/BBO handled
Barge	1.23 spills/BBO handled
Non-OCS Program Spill Rates	
≤1,000 bbl	rate based on yearly occurrence information
≥1,000 bbl	
Import Tanker	0.82 spills/BBO handled
Offshore	0.46 spills/BBO handled
Coastal	0.36 spills/BBO handled
Coastwise Tanker	0.73 spills/BBO handled
Offshore	0.29 spills/BBO handled
Coastal	0.44 spills/BBO handled
Barge	1.23 spills/BBO handled
Pipeline	rate based on yearly occurrence information

BBO = billion barrels of oil.

Table 4-15

Probability of One or More Offshore Spill Events (percent chance) and the Mean Number of Spills Estimated for Two Size Groups ( $\geq 1,000$  bbl and  $\geq 10,000$  bbl) that Could Occur as a Result of an Accident Associated with Either Facility, Pipeline, or Tanker OCS Program Operations

	OCS Facilities		OCS Pipelines		OCS Shuttle Tankers		All OCS Sources	
	Low	High	Low	High	Low	High	Low	High
For Possible Spills Occurring $\geq 1,000$ bbl								
Western Planning Area – OCS Program								
Mean Number of Spills	<1	1	9	10	<1	<1	10	12
Probability of Occurrence (%)	58	65	99+	99+	<0.5	28	99+	99+
Central Planning Area – OCS Program								
Mean Number of Spills	3	3	30	32	<1	1	33	36
Probability of Occurrence (%)	94	96	99+	99+	<0.5	63	99+	99+
Gulfwide OCS Program								
Mean Number of Spills	4	4	39	45	<1	<1	43	49
Probability of Occurrence (%)	98	99	99+	99+	<0.5	<0.5	99+	99+
For Possible Spills Occurring $\geq 10,000$ bbl								
Western Planning Area – OCS Program								
Mean Number of Spills	<1	<1	2	3	<1	<1	3	3
Probability of Occurrence (%)	28	33	90	92	<0.5	11	92	96
Central Planning Area – OCS Program								
Mean Number of Spills	1	1	7	8	<1	<1	9	9
Probability of Occurrence (%)	67	71	99+	99+	<0.5	29	99+	99+
Gulfwide OCS Program								
Mean Number of Spills	1	2	10	11	<1	<1	11	13
Probability of Occurrence (%)	76	80	99+	99+	<0.5	<0.5	99+	99+

Note: The mean number of spills estimated and the probability of occurrence are derived from by application of the historical rate of spills per volume crude oil handled (1985-1999) (Anderson and LaBelle, 2000) to the projected Gulfwide OCS total production over a future 40-year period. The actual number of spills that may occur in the future could vary from the estimated number. The mean number of spills  $\geq 1,000$  bbl includes the spills  $>10,000$  bbl.

Table 4-16

OCS Offshore Oil Spills<sup>1</sup> (1985-1999)

Spill Size Grouping	Total Number of Spills	Total Volume of Oil Spilled (bbl)	Number of Spills by Source Facility <sup>2</sup> / Pipeline	Spill Rate <sup>3</sup> (spills/BBO)	Average Spill Size (bbl)	Median Spill Size (bbl)
0-1.0 bbl	19,506	1,365	Unavailable	3,357.31	0.07	Unavailable
1.1-9.9 bbl	434	1,302	326/108	74.70	3.0	2.8
10.0-49.9 bbl	94	1,795	66/28	16.18	19.1	17.8
50.0-499.9 bbl	37	4,551	28/9	6.37	123	87
500.0-999.9 bbl	3	2,043	2/1	0.52	681	643
≥1,000 bbl	8	53,730	0/8	0.13/1.38 <sup>4</sup>	6,716	4,551
≥10,000 bbl	2	30,000	0/2	0.05/0.34 <sup>4</sup>	15,000	15,000

<sup>1</sup>Oil spilled includes crude oil, condensate, and refined petroleum products.

<sup>2</sup>Facilities represent spills that have occurred during drilling, development, and production operations.

<sup>3</sup>Spill rate = spills per BBO handled; BBO = 10<sup>9</sup> bbl (from 1985 to 1999 OCS production = 5.81 BBO).

<sup>4</sup>Facility spills rate/pipeline spill rate.

Source: Anderson and LaBelle, 2000.

Table 4-17

## Projected Average Annual OCS Emissions Related to the Proposed Action in the WPA by Source (tons per year)

Activity/Pollutant	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
Support Vessels	388-568	50-73	66-97	5-8	10-14	10-14
Survey Vessels	1-2	0-0.2	0	0	0	0
Pipeline Vessels	135-1,756	14-184	23-295	1-17	3-44	3-44
Helicopters	10-14	41-61	1-2	16-23	1	1
Tanker/Barge Transport	21-42	4-7	4-7	17-34	1	1
Platform Construction	102-163	13-20	17-28	1-2	3-4	3-4
Exploration and Delineation Wells	263-389	28-41	44-66	3-4	7-10	7-10
Platforms	749-1,498	884-1,769	33-67	571-1,143	8-15	8-15
Totals	1,669-4,432	1,034-2,155	189-561	615-1230	33-89	33-89

Table 4-18

Class I  
OCD Modeling Results for a Proposed Action in the Western Planning Area  
and the Corresponding Maximum Allowable Increases

Pollutant Averaging Period	Class I Maximum Allowable Increase*	Class I Modeled Impact**
SO <sub>2</sub>		
Annual	2.0 µg/m <sup>3</sup>	0.00-0.02 µg/m <sup>3</sup>
24-hour	5.0 µg/m <sup>3</sup>	0.14 µg/m <sup>3</sup>
3-hour	25.0 µg/m <sup>3</sup>	0.6-0.7 µg/m <sup>3</sup>
NO <sub>2</sub>		
Annual	2.5 µg/m <sup>3</sup>	0.09-0.12 µg/m <sup>3</sup>
PM <sub>10</sub>		
Annual	4.0 µg/m <sup>3</sup>	0.00-0.01 µg/m <sup>3</sup>
24-hour	8.0 µg/m <sup>3</sup>	0.06 µg/m <sup>3</sup>

\* 30 CFR 250.303.

\*\* Calculated using MMS's Offshore and Coastal Dispersion (OCD) Model.

Source: 40 CFR 51.166, 1996.

Table 4-19

Class II  
OCD Modeling Results for a Proposed Action in the Western Planning Area  
and the Corresponding Maximum Allowable Increases

Pollutant Averaging Period	Class II Maximum Allowable Increase*	Class II Modeled Impact**
SO <sub>2</sub>		
Annual	20.0 µg/m <sup>3</sup>	0.04 µg/m <sup>3</sup>
24-hour	91.0 µg/m <sup>3</sup>	0.5 µg/m <sup>3</sup>
3-hour	512.0 µg/m <sup>3</sup>	1.8-1.9 µg/m <sup>3</sup>
NO <sub>2</sub>		
Annual	25.0 µg/m <sup>3</sup>	0.36-0.42 µg/m <sup>3</sup>
PM <sub>10</sub>		
Annual	17.0 µg/m <sup>3</sup>	0.02 µg/m <sup>3</sup>
24-hour	30.0 µg/m <sup>3</sup>	0.2 µg/m <sup>3</sup>

\* 30 CFR 250.303.

\*\* Calculated using MMS's Offshore and Coastal Dispersion (OCD) Model.

Source: 40 CFR 51.166, 1996.

Table 4-20

Population Projections for a Proposed WPA Lease Sale by Economic Impact Area Over 40 Years

Calendar Year	Model Year	AL-1	MS-1	LA-1	LA-2	LA-3	LA-4	TX-1	TX-2	TX-3	FL-1	FL-2	FL-3	FL-4	Total EIA
		Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High	Low High
2007	1	44 - 70	24 - 38	21 - 33	249 - 421	293 - 475	148 - 253	53 - 86	34 - 54	927 - 1,529	10 - 15	8 - 13	12 - 21	4 - 7	1,827 - 3,014
2008	2	143 - 194	72 - 102	70 - 99	766 - 1,194	908 - 1,298	500 - 725	163 - 230	119 - 161	2,904 - 4,176	32 - 43	26 - 37	45 - 62	31 - 36	5,779 - 8,357
2009	3	107 - 137	54 - 71	51 - 66	545 - 755	684 - 906	392 - 521	119 - 156	86 - 106	2,156 - 2,867	23 - 29	20 - 27	34 - 44	26 - 30	4,296 - 5,712
2010	4	102 - 138	50 - 71	50 - 70	514 - 810	648 - 915	381 - 526	114 - 160	87 - 117	2,047 - 2,908	22 - 30	19 - 27	33 - 44	29 - 32	4,094 - 5,848
2011	5	115 - 204	57 - 102	57 - 102	599 - 1,120	728 - 1,320	409 - 757	133 - 234	102 - 175	2,314 - 4,165	25 - 44	21 - 39	36 - 66	29 - 54	4,624 - 8,382
2012	6	66 - 105	34 - 54	35 - 55	410 - 667	423 - 685	190 - 322	91 - 147	69 - 109	1,417 - 2,309	16 - 25	10 - 16	18 - 30	6 - 9	2,786 - 4,533
2013	7	75 - 177	38 - 89	40 - 92	477 - 1,060	477 - 1,142	213 - 594	106 - 234	83 - 178	1,633 - 3,821	19 - 41	11 - 30	21 - 54	6 - 32	3,199 - 7,545
2014	8	75 - 123	37 - 62	40 - 66	479 - 808	477 - 804	214 - 378	106 - 178	84 - 136	1,635 - 2,772	19 - 30	11 - 19	21 - 35	6 - 11	3,203 - 5,425
2015	9	51 - 132	25 - 64	29 - 70	341 - 788	319 - 840	139 - 441	76 - 177	63 - 140	1,108 - 2,811	14 - 32	7 - 22	14 - 41	4 - 28	2,189 - 5,588
2016	10	44 - 65	21 - 32	25 - 37	300 - 444	278 - 415	122 - 186	67 - 103	56 - 84	969 - 1,469	12 - 17	6 - 9	12 - 18	4 - 5	1,915 - 2,884
2017	11	41 - 59	19 - 28	24 - 34	280 - 406	258 - 376	117 - 168	63 - 95	52 - 79	909 - 1,337	11 - 16	5 - 8	11 - 16	3 - 5	1,793 - 2,628
2018	12	40 - 60	19 - 29	23 - 35	275 - 417	252 - 383	114 - 173	62 - 98	52 - 82	886 - 1,364	11 - 16	5 - 8	11 - 17	3 - 5	1,752 - 2,686
2019	13	41 - 65	19 - 31	24 - 38	285 - 454	260 - 415	118 - 188	65 - 107	55 - 90	918 - 1,477	11 - 18	5 - 8	12 - 18	4 - 5	1,818 - 2,915
2020	14	96 - 142	46 - 69	51 - 78	543 - 884	608 - 924	333 - 489	126 - 195	102 - 157	2,008 - 3,043	23 - 36	17 - 25	31 - 45	25 - 32	4,010 - 6,119
2021	15	47 - 144	22 - 70	28 - 79	331 - 905	298 - 940	137 - 498	75 - 200	64 - 162	1,050 - 3,094	13 - 37	6 - 25	13 - 45	4 - 33	2,090 - 6,232
2022	16	48 - 73	22 - 34	29 - 44	340 - 523	305 - 466	141 - 218	77 - 122	66 - 104	1,067 - 1,640	14 - 21	6 - 10	14 - 21	4 - 7	2,133 - 3,282
2023	17	48 - 73	22 - 34	29 - 45	344 - 531	305 - 468	143 - 222	77 - 123	67 - 105	1,060 - 1,630	14 - 22	6 - 10	14 - 21	4 - 7	2,134 - 3,289
2024	18	46 - 71	22 - 33	29 - 44	340 - 524	298 - 455	140 - 217	76 - 121	66 - 105	1,024 - 1,566	14 - 22	6 - 9	14 - 21	4 - 7	2,080 - 3,196
2025	19	46 - 71	21 - 33	29 - 45	340 - 528	294 - 453	141 - 219	76 - 120	66 - 105	1,005 - 1,540	14 - 22	6 - 9	14 - 21	4 - 7	2,056 - 3,173
2026	20	45 - 71	21 - 33	29 - 46	339 - 539	290 - 457	140 - 224	75 - 122	66 - 107	980 - 1,535	14 - 23	6 - 10	14 - 22	5 - 7	2,023 - 3,195
2027	21	46 - 71	21 - 33	29 - 46	346 - 547	293 - 458	143 - 227	76 - 122	67 - 108	977 - 1,525	15 - 24	6 - 10	14 - 22	5 - 8	2,036 - 3,200
2028	22	45 - 71	21 - 33	29 - 46	348 - 550	292 - 457	144 - 229	76 - 122	68 - 109	966 - 1,510	15 - 24	6 - 10	14 - 22	5 - 8	2,028 - 3,191
2029	23	45 - 70	21 - 32	29 - 46	347 - 549	289 - 453	144 - 229	76 - 121	68 - 109	951 - 1,487	15 - 24	6 - 10	14 - 22	5 - 8	2,010 - 3,161
2030	24	45 - 69	20 - 31	29 - 46	347 - 542	287 - 445	144 - 227	75 - 120	68 - 107	940 - 1,454	15 - 24	6 - 9	14 - 22	5 - 8	1,995 - 3,104
2031	25	43 - 68	20 - 31	29 - 45	341 - 534	281 - 438	142 - 224	74 - 118	66 - 106	914 - 1,422	15 - 24	6 - 9	14 - 21	5 - 8	1,949 - 3,047
2032	26	42 - 65	19 - 30	28 - 43	334 - 519	274 - 424	139 - 217	72 - 114	65 - 103	889 - 1,371	15 - 23	6 - 9	13 - 21	5 - 8	1,903 - 2,947
2033	27	41 - 63	19 - 29	27 - 42	324 - 502	266 - 410	135 - 210	70 - 111	63 - 100	857 - 1,321	14 - 23	6 - 9	13 - 20	5 - 8	1,839 - 2,845
2034	28	39 - 60	18 - 27	26 - 40	311 - 478	255 - 390	130 - 200	68 - 106	61 - 95	819 - 1,258	14 - 22	5 - 8	13 - 19	5 - 7	1,762 - 2,711
2035	29	37 - 56	17 - 26	24 - 37	294 - 447	241 - 366	122 - 188	64 - 99	58 - 89	774 - 1,179	13 - 20	5 - 8	12 - 18	4 - 7	1,666 - 2,541
2036	30	35 - 52	16 - 24	23 - 35	275 - 415	226 - 341	115 - 174	60 - 93	54 - 83	726 - 1,095	12 - 19	5 - 7	11 - 17	4 - 6	1,562 - 2,360
2037	31	33 - 49	15 - 22	22 - 32	260 - 389	216 - 323	112 - 168	57 - 87	51 - 78	696 - 1,040	12 - 18	5 - 7	11 - 16	4 - 6	1,494 - 2,235
2038	32	39 - 54	18 - 25	25 - 35	292 - 415	268 - 369	149 - 203	65 - 93	56 - 81	832 - 1,163	12 - 18	6 - 8	12 - 17	4 - 6	1,778 - 2,487
2039	33	33 - 47	15 - 22	21 - 30	245 - 356	220 - 312	114 - 163	55 - 81	48 - 71	679 - 979	11 - 16	5 - 7	10 - 15	4 - 5	1,459 - 2,102
2040	34	32 - 49	15 - 23	20 - 31	234 - 367	214 - 336	113 - 179	53 - 84	45 - 72	663 - 1,051	10 - 16	5 - 7	10 - 15	4 - 6	1,417 - 2,234
2041	35	24 - 39	11 - 18	15 - 25	186 - 312	157 - 263	79 - 138	42 - 72	37 - 61	504 - 909	9 - 14	3 - 6	8 - 13	3 - 6	1,078 - 1,878
2042	36	23 - 42	10 - 20	14 - 26	175 - 321	148 - 285	75 - 155	40 - 74	35 - 62	478 - 963	8 - 14	3 - 7	7 - 14	3 - 6	1,020 - 1,989
2043	37	22 - 36	10 - 17	14 - 23	166 - 283	142 - 243	73 - 132	38 - 66	33 - 55	460 - 850	8 - 13	3 - 6	7 - 12	3 - 5	976 - 1,741
2044	38	20 - 37	9 - 18	13 - 23	155 - 284	133 - 255	68 - 139	36 - 66	31 - 55	431 - 866	7 - 12	3 - 6	6 - 12	2 - 5	914 - 1,779
2045	39	18 - 30	8 - 14	12 - 19	141 - 240	121 - 206	61 - 109	33 - 56	28 - 47	392 - 727	7 - 11	3 - 5	6 - 11	2 - 5	832 - 1,481
2046	40	17 - 28	8 - 14	11 - 18	131 - 224	112 - 193	55 - 101	30 - 53	26 - 44	363 - 683	6 - 10	2 - 5	5 - 10	2 - 5	769 - 1,387

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).

Table 4-21

Population Projected from a Proposed CPA Lease Sale as a Percent of Total Population by Economic Impact Area

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4		Total EIA	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2007	1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	2	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2009	3	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2010	4	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011	5	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2012	6	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2013	7	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	8	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2015	9	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016	10	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	11	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	12	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019	13	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2020	14	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2021	15	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2022	16	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	17	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	18	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	19	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2026	20	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2027	21	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2028	22	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2029	23	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2030	24	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2031	25	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2032	26	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2033	27	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2034	28	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2035	29	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2036	30	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2037	31	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2038	32	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2039	33	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2040	34	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2041	35	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2042	36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2043	37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2044	38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2045	39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2046	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).





Table 4-23

High-Case Employment (Direct, Indirect, and Induced) Projections for a Proposed WPA Sale by Economic Impact Area Over 40 Years

EIA	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total	
AL-1	Direct	22	59	42	42	61	33	55	39	41	21	19	19	21	45	46	23	24	23	23	23	23	23	22	22	21	20	20	18	17	16	18	15	16	13	14	12	12	10	10	1,026		
	Indirect	5	14	11	11	16	7	13	8	10	4	4	4	4	11	11	5	5	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	2	3	2	2	222	
	Induced	9	28	20	20	30	16	27	19	21	10	9	10	11	23	23	12	12	12	12	12	12	13	13	13	12	12	12	11	11	10	9	10	8	9	7	7	7	7	6	5	527	
	<b>Total</b>	<b>36</b>	<b>101</b>	<b>72</b>	<b>72</b>	<b>108</b>	<b>56</b>	<b>95</b>	<b>66</b>	<b>71</b>	<b>35</b>	<b>32</b>	<b>33</b>	<b>36</b>	<b>78</b>	<b>80</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>39</b>	<b>38</b>	<b>37</b>	<b>36</b>	<b>34</b>	<b>32</b>	<b>30</b>	<b>28</b>	<b>31</b>	<b>27</b>	<b>28</b>	<b>23</b>	<b>24</b>	<b>21</b>	<b>18</b>	<b>17</b>	<b>1,774</b>			
FL-1	Direct	4	13	9	9	13	8	13	10	10	6	6	6	6	12	12	7	8	8	8	8	8	8	8	8	8	8	8	7	7	6	6	6	6	5	5	4	4	4	4	305		
	Indirect	1	4	3	3	4	2	3	2	2	1	1	1	1	3	3	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	65	
	Induced	2	7	5	5	8	4	7	5	5	3	3	3	3	6	6	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	2	2	2	2	2	2	2	153
	<b>Total</b>	<b>8</b>	<b>24</b>	<b>16</b>	<b>17</b>	<b>25</b>	<b>14</b>	<b>23</b>	<b>17</b>	<b>18</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>21</b>	<b>21</b>	<b>12</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>523</b>		
FL-2	Direct	4	12	8	8	12	5	10	6	7	3	3	3	3	8	8	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	1	1	161	
	Indirect	1	3	2	2	3	1	2	1	2	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	42
	Induced	2	5	4	4	6	2	4	3	3	1	1	1	1	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	<b>Total</b>	<b>7</b>	<b>19</b>	<b>14</b>	<b>14</b>	<b>21</b>	<b>9</b>	<b>16</b>	<b>10</b>	<b>12</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>5</b>	<b>13</b>	<b>14</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>277</b>	
FL-3	Direct	6	17	12	12	18	9	15	10	12	6	5	5	5	13	13	6	7	6	7	7	7	7	7	7	7	7	6	6	6	5	5	5	5	5	5	4	4	4	4	3	3	296
	Indirect	2	7	5	5	7	3	6	4	4	2	2	2	2	5	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	106
	Induced	4	12	9	9	13	6	11	7	8	4	3	3	4	9	9	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	2	2	204
	<b>Total</b>	<b>12</b>	<b>36</b>	<b>25</b>	<b>26</b>	<b>38</b>	<b>17</b>	<b>32</b>	<b>21</b>	<b>25</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>11</b>	<b>27</b>	<b>28</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>10</b>	<b>9</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>606</b>	
FL-4	Direct	2	9	8	8	14	2	8	3	7	1	1	1	1	8	8	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	118
	Indirect	1	4	3	4	6	1	4	1	3	1	1	1	1	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	59
	Induced	1	7	5	6	10	2	6	2	5	1	1	1	1	6	6	1	1	1	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	96
	<b>Total</b>	<b>4</b>	<b>20</b>	<b>16</b>	<b>18</b>	<b>30</b>	<b>5</b>	<b>18</b>	<b>6</b>	<b>16</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>18</b>	<b>18</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>273</b>	
LA-1	Direct	11	32	21	23	33	19	31	23	24	13	12	13	14	27	28	16	16	16	16	16	17	17	17	17	17	16	16	15	15	14	13	12	13	11	12	10	10	9	9	8	7	662
	Indirect	2	7	5	5	7	3	6	4	5	2	2	2	2	6	6	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	1	1	124
	Induced	4	14	9	10	15	8	14	10	11	6	6	7	7	13	13	8	8	8	8	8	9	9	9	9	9	9	9	8	8	7	7	6	6	5	5	5	5	4	4	4	3	326
	<b>Total</b>	<b>18</b>	<b>53</b>	<b>36</b>	<b>38</b>	<b>56</b>	<b>30</b>	<b>52</b>	<b>37</b>	<b>40</b>	<b>21</b>	<b>20</b>	<b>22</b>	<b>46</b>	<b>47</b>	<b>26</b>	<b>27</b>	<b>27</b>	<b>27</b>	<b>28</b>	<b>28</b>	<b>29</b>	<b>29</b>	<b>29</b>	<b>29</b>	<b>28</b>	<b>28</b>	<b>27</b>	<b>25</b>	<b>24</b>	<b>22</b>	<b>21</b>	<b>23</b>	<b>20</b>	<b>17</b>	<b>17</b>	<b>15</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>1,112</b>		
LA-2	Direct	120	344	217	235	325	196	311	240	234	133	121	124	136	269	276	157	159	156	157	161	163	164	163	161	159	155	150	144	135	126	118	128	110	114	98	102	90	91	77	72	6,590	
	Indirect	39	109	74	78	109	56	95	68	70	35	32	33	36	82	84	43	44	45	46	47	47	46	45	44	42	39	37	35	33	33	35	39	33	35	29	30	26	27	22	21	1,956	
	Induced	66	189	119	130	184	118	187	147	143	85	80	83	92	165	171	109	112	113	115	118	121	123	124	123	122	119	116	111	104	97	91	95	83	84	72	74	66	65	56	53	4,425	
	<b>Total</b>	<b>225</b>	<b>643</b>	<b>410</b>	<b>443</b>	<b>618</b>	<b>370</b>	<b>593</b>	<b>455</b>	<b>447</b>	<b>253</b>	<b>233</b>	<b>240</b>	<b>264</b>	<b>516</b>	<b>531</b>	<b>308</b>	<b>315</b>	<b>313</b>	<b>316</b>	<b>324</b>	<b>330</b>	<b>333</b>	<b>334</b>	<b>331</b>	<b>327</b>	<b>319</b>	<b>310</b>	<b>296</b>	<b>279</b>	<b>259</b>	<b>244</b>	<b>262</b>	<b>225</b>	<b>233</b>	<b>199</b>	<b>206</b>	<b>182</b>	<b>183</b>	<b>156</b>	<b>146</b>	<b>12,970</b>	
LA-3	Direct	162	428	297	296	424	233	376	273	275	140	126	127	137	300	305	152	152	146	144	144	143	142	140	137	134	129	125	119	111	104	98	114	96	105	83	90	77	81	66	61	6,789	
	Indirect	43	127	96	96	142	61	114	74	86	37	34	36	39	99	101	46	46	46	46	48	48	48	49	49	48	47	45	44	41	38	36	43	36	39	29	32	27	29	23	21	2,186	
	Induced	73	207	145	149	219	114	193	137	146	74	68	70	76	165	169	88	90	89	89	91	92	93	93	92	91	88	86	82	77	72	68	76	65	68	54	58	50	52	42	40	3,889	
	<b>Total</b>	<b>278</b>	<b>762</b>	<b>534</b>	<b>542</b>	<b>784</b>	<b>408</b>	<b>684</b>	<b>483</b>	<b>507</b>	<b>251</b>	<b>228</b>	<b>233</b>	<b>253</b>	<b>565</b>	<b>576</b>	<b>286</b>	<b>288</b>	<b>281</b>	<b>280</b>	<b>283</b>	<b>284</b>	<b>284</b>	<b>282</b>	<b>277</b>	<b>272</b>	<b>264</b>	<b>256</b>	<b>244</b>	<b>229</b>	<b>213</b>	<b>202</b>	<b>232</b>	<b>196</b>	<b>211</b>	<b>166</b>	<b>180</b>	<b>154</b>	<b>162</b>	<b>131</b>	<b>123</b>	<b>12,865</b>	
LA-4	Direct	68	185	131	130	185	90	155	106	114	52	47	48	52	127	129	59	59	57	56	57	57	57	56	55	54	53	51	49	46	43	41	51	41	46	36	41	36	38	30	28	2,815	
	Indirect	29	92	69	73	109	39	82	49	64	25	23	24	27	76	78	34	35	35	35	37	38	40	41	41	41	40	38	36	34	32	38	31	34	26	29	24	26	20	19	17	1,710	
	Induced	46	137	101	103	152	62	119	74	90	37	34	35	39	104	107	46	48	47	48	50	51	52	52	52	51	49	47	44	41	40	48	39	43	33	37	32	34	27	25	2,327		
	<b>Total</b>	<b>143</b>	<b>415</b>	<b>301</b>	<b>307</b>	<b>446</b>	<b>191</b>	<b>356</b>	<b>228</b>	<b>268</b>	<b>114</b>	<b>103</b>	<b>107</b>	<b>118</b>	<b>307</b>																												

Table 4-24

Employment Projected from a Proposed WPA Lease Sale as a Percent of Total Employment by Economic Impact Area

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4		Total EIA	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2007	1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2008	2	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2009	3	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2010	4	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2011	5	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2012	6	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2013	7	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2014	8	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2015	9	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2016	10	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2017	11	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2018	12	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2019	13	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2020	14	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2021	15	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2022	16	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2023	17	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2024	18	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2025	19	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2026	20	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2027	21	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2028	22	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2029	23	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2030	24	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2031	25	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2032	26	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2033	27	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2034	28	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2035	29	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2036	30	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2037	31	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2038	32	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2039	33	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2040	34	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2041	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2042	36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2043	37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2044	38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2045	39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2046	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).

Table 4-25

Projected Average Annual OCS Emissions Related to the Proposed Action in the CPA by Source  
(tons per year)

Activity/Pollutant	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	PM <sub>10</sub>	PM <sub>2.5</sub>
Support Vessels	388-540	50-70	66-92	5-7	10-13	10-13
Survey Vessels	1	0-0.1	0	0	0	0
Pipeline Vessels	135-1756	14-184	23-295	1-17	3-44	3-44
Helicopters	10-14	41-58	1-2	16-22	1	1
Tanker/Barge Transport	84-137	14-23	14-24	69-111	2-4	2-4
Platform Construction	111-168	14-21	19-29	1-2	3-4	3-4
Exploration and Delineation Wells	263-389	28-41	44-66	3-4	7-10	7-10
Platforms	2,996-4,869	3,538-5,749	133-217	2,286-3,714	30-49	30-49
Totals	3,988-7,874	3,699-6,145	301-723	2,380-3,877	56-125	56-125

Table 4-26

Class I  
OCD Modeling Results for a Proposed Action in the Central Planning Area  
and the Corresponding Maximum Allowable Increases

Pollutant Averaging Period	Class I Maximum Allowable Increase*	Class I Modeled Impact**
SO <sub>2</sub>		
Annual	2.0 µg/m <sup>3</sup>	0.00 - 0.02 µg/m <sup>3</sup>
24-hour	5.0 µg/m <sup>3</sup>	0.14 µg/m <sup>3</sup>
3-hour	25.0 µg/m <sup>3</sup>	0.6 - 0.7 µg/m <sup>3</sup>
NO <sub>2</sub>		
Annual	2.5 µg/m <sup>3</sup>	0.09 - 0.12 µg/m <sup>3</sup>
PM <sub>10</sub>		
Annual	5.0 µg/m <sup>3</sup>	0.00 - 0.01 µg/m <sup>3</sup>
24-hour	10.0 µg/m <sup>3</sup>	0.06 µg/m <sup>3</sup>

\* 30 CFR 250.303.

\*\* Calculated using MMS's Offshore and Coastal Dispersion (OCD) Model.

Source: 40 CFR 51.166, 1996.

Table 4-27

Class II  
OCD Modeling Results for a Proposed Action in the Central Planning Area  
and the Corresponding Maximum Allowable Increases

Pollutant Averaging Period	Class II Maximum Allowable Increase*	Class II Modeled Impact**
SO <sub>2</sub>		
Annual	20.0 µg/m <sup>3</sup>	0.04 µg/m <sup>3</sup>
24-hour	91.0 µg/m <sup>3</sup>	0.5 µg/m <sup>3</sup>
3-hour	512.0 µg/m <sup>3</sup>	1.8 - 1.9 µg/m <sup>3</sup>
NO <sub>2</sub>		
Annual	25.0 µg/m <sup>3</sup>	0.36 - 0.42 µg/m <sup>3</sup>
PM <sub>10</sub>		
Annual	19.0 µg/m <sup>3</sup>	0.02 µg/m <sup>3</sup>
24-hour	37.0 µg/m <sup>3</sup>	0.2 µg/m <sup>3</sup>

\* 30 CFR 250.303.

\*\* Calculated using MMS's Offshore and Coastal Dispersion (OCD) Model.

Source: 40 CFR 51.166, 1996.

Table 4-28

Population Projections for a Proposed CPA Lease Sale by Economic Impact Area Over 40 Years

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4		Total EIA	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2007	1	79	128	40	66	47	77	620	1071	563	941	363	626	74	127	44	74	1,070	1,976	15	23	13	21	20	35	7	11	2,953	5,176
2008	2	288	361	136	175	170	216	2,089	2,799	1,947	2,518	1,358	1,745	256	337	179	226	3,795	5,141	56	70	49	62	84	107	66	72	10,474	13,828
2009	3	237	326	114	157	145	203	1,856	2,657	1,647	2,295	1,126	1,561	216	307	152	211	3,134	4,398	47	63	40	53	66	90	47	53	8,828	12,372
2010	4	209	329	96	162	123	206	1,467	2,716	1,405	2,354	997	1,609	181	311	133	219	2,712	4,792	39	66	36	58	60	96	56	68	7,514	12,987
2011	5	381	835	173	410	227	513	2,683	6,536	2,559	5,859	1,823	3,999	328	765	249	558	4,830	12,008	71	173	65	157	110	252	106	215	13,605	32,280
2012	6	122	373	57	181	84	244	1,071	3,096	869	2,664	571	1,794	116	351	83	252	1,361	5,040	24	76	17	63	28	103	9	70	4,410	14,306
2013	7	117	268	54	128	83	181	1,050	2,203	833	1,905	548	1,301	114	255	82	180	1,304	3,587	24	53	16	44	27	75	9	49	4,261	10,228
2014	8	148	210	68	99	105	156	1,338	1,917	1051	1,533	690	1,021	145	211	107	149	1,611	2,595	31	43	19	29	34	52	11	17	5,360	8,033
2015	9	117	152	50	67	90	129	1,114	1,489	814	1,093	543	745	116	157	95	124	1,083	1,605	26	34	13	17	27	37	8	10	4,096	5,659
2016	10	119	161	51	70	93	139	1,151	1,594	837	1,160	563	796	121	168	100	137	1,113	1,643	27	37	13	18	27	39	8	11	4,223	5,972
2017	11	119	171	51	73	93	148	1,154	1,683	838	1,225	565	836	121	177	101	146	1,104	1,664	27	39	13	18	27	40	8	12	4,221	6,230
2018	12	122	184	52	79	96	160	1,191	1,818	866	1,327	584	903	126	192	105	158	1,144	1,796	28	42	13	20	28	43	8	13	4,364	6,735
2019	13	126	188	53	80	99	165	1,227	1,864	893	1,361	602	929	131	197	109	163	1,184	1,848	29	44	13	20	29	44	9	13	4,505	6,919
2020	14	130	193	55	82	103	172	1,277	1,918	927	1,398	627	954	136	203	114	170	1,228	1,844	31	45	14	21	30	45	9	14	4,681	7,059
2021	15	134	198	57	84	106	177	1,320	1,971	958	1,434	648	982	142	210	119	176	1,276	1,899	32	47	14	21	31	46	9	14	4,848	7,259
2022	16	137	205	58	87	108	184	1,345	2,051	976	1,491	659	1,019	146	220	123	185	1,306	1,980	33	49	15	22	32	48	10	15	4,947	7,557
2023	17	135	208	57	88	106	186	1,330	2,077	963	1,509	651	1,030	146	225	124	191	1,301	2,015	33	51	15	23	32	49	10	15	4,903	7,666
2024	18	132	200	56	84	104	181	1,303	2,009	943	1,455	636	996	145	220	123	188	1,286	1,962	33	50	14	22	31	48	10	15	4,815	7,429
2025	19	129	194	54	82	101	176	1,273	1,960	919	1,418	619	970	143	216	123	186	1,266	1,926	33	49	14	21	31	47	10	15	4,714	7,263
2026	20	122	185	51	78	95	168	1,204	1,868	870	1,351	584	922	137	208	117	180	1,204	1,847	31	48	13	21	30	45	10	15	4,467	6,935
2027	21	118	178	50	75	92	162	1,164	1,794	840	1,297	562	882	134	203	115	175	1,172	1,787	31	46	13	20	29	44	10	15	4,327	6,677
2028	22	116	177	49	75	91	162	1,153	1,792	829	1,291	555	877	134	206	117	179	1,178	1,806	31	47	13	20	29	45	10	15	4,306	6,691
2029	23	115	176	49	74	90	160	1,145	1,789	821	1,284	549	872	135	208	118	182	1,179	1,823	31	48	13	20	29	45	10	16	4,285	6,698
2030	24	113	174	48	73	89	158	1,129	1,775	807	1,271	541	863	135	209	118	184	1,175	1,827	31	49	13	20	29	45	10	16	4,238	6,666
2031	25	111	172	47	72	87	155	1,109	1,750	792	1,250	530	848	134	209	118	185	1,164	1,817	31	49	13	20	29	45	10	16	4,175	6,588
2032	26	109	169	46	71	85	152	1,088	1,722	776	1,229	519	833	133	207	117	184	1,150	1,802	31	49	13	20	29	45	10	16	4,106	6,498
2033	27	105	164	44	69	82	148	1,056	1,679	753	1,198	503	811	130	204	115	182	1,123	1,769	31	48	12	19	28	44	10	16	3,992	6,353
2034	28	102	159	43	67	80	143	1,025	1,631	731	1,163	488	786	127	200	113	178	1,097	1,728	30	47	12	19	27	43	10	16	3,884	6,181
2035	29	98	154	41	65	76	138	986	1,577	703	1,126	469	760	123	195	109	174	1,060	1,681	29	46	12	18	26	42	10	16	3,743	5,990
2036	30	93	147	39	62	72	132	936	1,508	669	1,079	446	728	118	188	105	167	1,013	1,617	28	44	11	18	25	40	9	15	3,564	5,746
2037	31	102	154	44	65	77	134	1,001	1,544	751	1,141	518	785	129	196	111	171	1,214	1,789	29	44	13	19	27	42	10	15	4,026	6,100
2038	32	91	139	39	59	69	123	893	1,404	662	1,030	441	693	115	178	100	157	1,029	1,570	26	41	11	17	24	38	9	14	3,510	5,464
2039	33	89	135	38	57	66	118	855	1,340	648	999	428	669	112	172	97	150	1,013	1,533	25	39	11	17	23	36	9	14	3,415	5,279
2040	34	97	161	43	71	70	132	896	1,517	719	1,222	473	830	121	202	101	169	1,170	2,010	26	43	13	21	25	42	9	15	3,764	6,436
2041	35	69	122	29	52	53	107	692	1,218	502	915	331	614	89	157	78	135	763	1,424	21	35	8	16	19	33	7	13	2,662	4,842
2042	36	65	115	28	49	50	102	648	1,165	471	865	311	586	84	148	73	127	719	1,361	19	34	8	15	18	32	7	13	2,500	4,611
2043	37	62	102	26	44	47	92	613	1,053	448	767	295	521	80	133	70	115	687	1,197	18	31	7	13	17	29	6	12	2,376	4,108
2044	38	58	96	25	41	44	87	578	989	424	721	279	487	76	125	66	108	649	1,118	17	29	7	12	16	27	6	11	2,244	3,850
2045	39	55	91	23	39	41	83	544	935	399	683	261	460	71	119	62	102	607	1,057	16	27	7	12	15	26	6	11	2,109	3,643
2046	40	52	85	22	36	39	78	513	879	377	643	246	431	68	112	59	96	572	994	16	26	6	11	14	24	5	10	1,988	3,425

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).

Table 4-29

Population Projected from a Proposed CPA Lease Sale as a Percent of Total Population by Economic Impact Area

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4		Total EIA		
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	
2007	1	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2008	2	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2009	3	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2010	4	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2011	5	0-0		0-0		0-0		0-1		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2012	6	0-0		0-0		0-0		0-1		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2013	7	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2014	8	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2015	9	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2016	10	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2017	11	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2018	12	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2019	13	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2020	14	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2021	15	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2022	16	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2023	17	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2024	18	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2025	19	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2026	20	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2027	21	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2028	22	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2029	23	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2030	24	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2031	25	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2032	26	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2033	27	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2034	28	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2035	29	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2036	30	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2037	31	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2038	32	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2039	33	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2040	34	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2041	35	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2042	36	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2043	37	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2044	38	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2045	39	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0
2046	40	0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0		0-0

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).

Table 4-30a

Low-Case Employment (Direct, Indirect, and Induced) Projections  
for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 1-20)

EIA	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
AL-1	Direct	24	86	71	62	113	39	37	47	38	38	38	40	41	43	44	45	44	43	42	40
	Indirect	6	22	18	17	31	9	8	10	7	8	8	8	8	8	9	9	9	9	8	8
	Induced	11	42	34	31	58	18	17	22	18	18	18	19	20	21	21	22	22	21	21	20
	Total	41	150	124	110	201	65	63	80	63	64	64	67	69	72	74	76	75	73	72	68
FL-1	Direct	5	17	14	12	22	8	8	10	9	9	10	10	10	11	11	12	12	12	11	11
	Indirect	1	5	4	4	6	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Induced	2	9	8	7	12	4	4	5	4	4	4	5	5	5	5	5	5	5	5	5
	Total	8	31	26	22	40	14	14	18	15	16	16	16	17	18	18	19	19	19	19	18
FL-2	Direct	4	16	13	11	20	5	5	6	4	4	4	4	4	5	5	5	5	5	5	4
	Indirect	1	4	3	3	5	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
	Induced	2	7	6	5	9	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2
	Total	7	26	21	19	35	9	8	10	7	7	7	7	7	7	8	8	8	8	8	8
FL-3	Direct	5	23	18	16	30	8	8	10	8	8	8	9	9	9	10	10	10	10	10	9
	Indirect	2	9	7	7	12	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	Induced	4	17	13	12	22	5	5	7	5	5	5	5	6	6	6	6	6	6	6	6
	Total	11	48	38	35	64	16	16	20	16	16	16	17	17	18	19	19	19	19	19	18
FL-4	Direct	2	17	12	15	28	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Indirect	1	7	5	6	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Induced	1	12	9	10	19	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Total	4	36	26	31	59	5	5	6	4	5	4	5	5	5	5	6	6	6	6	5
LA-1	Direct	15	55	48	39	74	29	29	38	33	34	34	36	37	39	40	41	40	39	39	37
	Indirect	3	12	10	9	17	5	5	7	5	6	6	6	6	6	7	7	7	7	7	6
	Induced	6	24	21	18	34	12	12	15	13	14	14	14	15	16	16	17	17	16	16	15
	Total	25	91	79	67	125	46	46	59	51	53	54	56	58	61	63	64	64	63	61	58
LA-2	Direct	174	598	541	422	780	323	319	411	350	362	365	379	393	410	425	435	431	423	414	392
	Indirect	59	194	171	142	258	92	90	114	87	90	91	94	98	102	106	109	108	107	105	100
	Induced	98	333	296	238	441	179	178	229	195	204	206	214	222	233	243	250	249	246	243	231
	Total	331	1,125	1,008	803	1,479	594	587	754	631	656	662	688	713	745	774	793	789	777	762	723
LA-3	Direct	188	624	535	443	805	296	284	359	278	284	285	295	304	316	326	332	327	318	309	293
	Indirect	53	201	167	154	283	80	77	97	73	77	77	80	83	87	91	93	93	92	90	86
	Induced	88	318	269	235	432	142	138	175	139	145	146	151	157	164	170	174	174	171	168	160
	Total	329	1,143	971	832	1,520	518	498	632	491	506	508	527	545	567	587	599	593	581	568	538
LA-4	Direct	97	348	298	249	460	170	165	211	173	178	180	187	193	202	209	212	209	204	197	186
	Indirect	42	172	141	135	250	65	63	80	61	65	66	69	72	76	79	82	82	82	81	77
	Induced	66	257	212	197	363	103	100	126	96	101	102	106	111	116	121	124	124	122	120	114
	Total	205	777	651	582	1,073	339	328	417	330	344	348	362	376	393	409	418	415	408	399	378
MS-1	Direct	14	46	39	33	59	20	19	24	18	18	18	19	19	20	21	21	21	20	20	19
	Indirect	2	8	7	6	11	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3
	Induced	5	17	15	13	23	7	7	9	7	7	7	7	7	8	8	8	8	8	8	7
	Total	21	72	60	51	93	31	29	37	27	28	28	29	30	31	32	32	32	31	31	29
TX-1	Direct	19	64	55	45	81	30	29	37	30	31	31	32	34	35	36	37	37	37	36	34
	Indirect	5	18	15	13	24	7	7	8	6	6	6	7	7	7	8	8	8	8	8	7
	Induced	8	29	25	21	38	14	13	17	14	15	15	16	17	17	18	19	19	19	18	18
	Total	32	111	94	79	143	51	50	63	51	53	53	55	57	60	62	64	64	63	62	60
TX-2	Direct	14	55	48	40	74	28	28	36	33	34	35	36	37	39	41	42	42	42	42	40
	Indirect	3	15	12	13	24	5	5	6	5	6	6	6	6	7	7	7	7	8	8	7
	Induced	4	19	16	15	28	9	9	12	11	12	12	13	13	14	15	15	16	16	16	15
	Total	22	89	76	67	126	42	42	55	49	52	52	55	57	60	63	65	65	65	65	62
TX-3	Direct	265	935	789	659	1,175	349	334	415	289	294	291	302	313	324	336	343	340	335	328	312
	Indirect	138	504	412	372	669	180	175	217	145	152	152	159	165	173	181	187	188	188	187	179
	Induced	218	776	637	568	1,016	280	270	334	218	226	226	235	244	255	266	273	273	272	268	256
	Total	621	2,215	1,839	1,599	2,860	809	779	967	652	672	669	695	723	751	783	803	802	794	784	747
Total EIA	Direct	826	2,882	2,480	2,045	3,721	1,308	1,269	1,609	1,263	1,299	1,302	1,350	1,396	1,453	1,505	1,536	1,520	1,490	1,455	1,379
	Indirect	317	1,172	973	881	1,601	454	441	553	400	419	421	438	456	477	498	513	514	510	505	481
	Induced	514	1,861	1,560	1,370	2,496	777	757	956	724	754	759	789	820	857	893	918	917	908	895	852
	Total	1,657	5,914	5,013	4,296	7,818	2,539	2,466	3,117	2,387	2,472	2,481	2,578	2,673	2,787	2,897	2,966	2,951	2,908	2,855	2,712

Note: Totals may not sum due to rounding.

Source: Employment output from MMS's economic impact model MAG-PLAN.



Table 4-30b

Low-Case Employment (Direct, Indirect, and Induced) Projections  
for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 21-40)

EIA	Type	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total
AL-1	Direct	39	38	38	37	36	36	35	34	32	31	34	30	29	32	23	22	21	20	19	18	1,577
	Indirect	8	8	8	7	7	7	7	7	7	6	7	6	6	7	5	4	4	4	4	4	342
	Induced	19	19	19	19	19	19	18	18	17	16	18	16	15	17	12	12	11	10	10	9	789
	<b>Total</b>	<b>66</b>	<b>65</b>	<b>65</b>	<b>64</b>	<b>63</b>	<b>62</b>	<b>60</b>	<b>58</b>	<b>56</b>	<b>53</b>	<b>59</b>	<b>52</b>	<b>51</b>	<b>56</b>	<b>40</b>	<b>38</b>	<b>36</b>	<b>34</b>	<b>32</b>	<b>30</b>	<b>2,708</b>
FL-1	Direct	11	11	11	11	11	11	11	11	10	10	10	9	9	9	7	7	7	6	6	6	405
	Indirect	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	83
	Induced	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	200
	<b>Total</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>17</b>	<b>15</b>	<b>15</b>	<b>12</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>9</b>	<b>687</b>
FL-2	Direct	4	4	4	4	4	4	4	4	4	3	4	3	3	4	3	2	2	2	2	2	201
	Indirect	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	53
	Induced	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	91
	<b>Total</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>345</b>
FL-3	Direct	9	9	9	9	9	9	9	8	8	8	9	8	7	8	6	6	5	5	5	4	377
	Indirect	3	3	3	3	3	3	3	3	3	3	3	3	2	3	2	2	2	2	2	2	131
	Induced	6	6	6	6	6	6	6	6	6	5	6	5	5	5	4	4	4	3	3	3	256
	<b>Total</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>16</b>	<b>17</b>	<b>15</b>	<b>15</b>	<b>16</b>	<b>12</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>9</b>	<b>764</b>
FL-4	Direct	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	142
	Indirect	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	71
	Induced	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	117
	<b>Total</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>330</b>
LA-1	Direct	35	35	35	34	33	33	32	31	30	28	30	27	26	28	21	20	19	18	17	16	1,325
	Indirect	6	6	6	6	6	6	6	6	5	5	6	5	5	5	4	4	3	3	3	3	244
	Induced	15	15	15	15	15	15	15	14	14	13	14	13	12	13	10	9	9	8	8	7	573
	<b>Total</b>	<b>56</b>	<b>56</b>	<b>56</b>	<b>55</b>	<b>54</b>	<b>54</b>	<b>52</b>	<b>51</b>	<b>49</b>	<b>47</b>	<b>50</b>	<b>45</b>	<b>43</b>	<b>46</b>	<b>35</b>	<b>33</b>	<b>31</b>	<b>30</b>	<b>28</b>	<b>27</b>	<b>2,143</b>
LA-2	Direct	380	376	373	368	362	355	345	336	324	308	331	296	285	300	233	219	208	197	186	176	14,306
	Indirect	97	97	97	96	95	94	91	89	86	82	91	81	78	84	62	59	56	53	50	47	3,902
	Induced	225	226	227	225	223	221	216	211	204	194	206	186	178	186	146	138	131	124	117	111	8,421
	<b>Total</b>	<b>702</b>	<b>699</b>	<b>697</b>	<b>689</b>	<b>680</b>	<b>670</b>	<b>652</b>	<b>636</b>	<b>614</b>	<b>585</b>	<b>628</b>	<b>563</b>	<b>541</b>	<b>570</b>	<b>441</b>	<b>415</b>	<b>394</b>	<b>373</b>	<b>353</b>	<b>334</b>	<b>26,629</b>
LA-3	Direct	282	276	272	266	259	253	245	237	228	217	243	215	210	235	163	154	146	139	131	124	11,496
	Indirect	83	83	83	83	82	81	79	77	75	71	82	72	71	80	54	51	48	46	43	41	3,520
	Induced	155	155	154	152	150	146	142	137	131	146	129	126	138	99	93	88	84	79	75	75	6,251
	<b>Total</b>	<b>520</b>	<b>514</b>	<b>510</b>	<b>502</b>	<b>493</b>	<b>484</b>	<b>470</b>	<b>457</b>	<b>440</b>	<b>419</b>	<b>471</b>	<b>416</b>	<b>408</b>	<b>453</b>	<b>316</b>	<b>298</b>	<b>283</b>	<b>268</b>	<b>253</b>	<b>240</b>	<b>21,268</b>
LA-4	Direct	178	175	171	167	163	159	154	149	143	136	158	135	130	143	104	97	93	88	83	79	7,035
	Indirect	76	77	77	77	77	77	75	74	72	69	80	69	68	76	52	49	47	44	42	39	3,162
	Induced	111	111	111	110	109	108	105	103	100	95	113	96	94	106	73	68	65	62	58	55	4,634
	<b>Total</b>	<b>365</b>	<b>362</b>	<b>360</b>	<b>355</b>	<b>350</b>	<b>344</b>	<b>335</b>	<b>326</b>	<b>315</b>	<b>301</b>	<b>351</b>	<b>300</b>	<b>293</b>	<b>324</b>	<b>228</b>	<b>215</b>	<b>205</b>	<b>195</b>	<b>183</b>	<b>173</b>	<b>14,832</b>
MS-1	Direct	18	18	18	17	17	17	16	15	15	15	16	14	14	16	11	10	10	9	9	8	773
	Indirect	3	3	3	3	3	3	2	2	2	2	3	2	2	3	2	2	1	1	1	1	124
	Induced	7	7	7	7	7	7	7	6	6	6	6	6	6	6	4	4	4	4	4	3	299
	<b>Total</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>27</b>	<b>27</b>	<b>26</b>	<b>25</b>	<b>24</b>	<b>23</b>	<b>25</b>	<b>22</b>	<b>22</b>	<b>22</b>	<b>25</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>14</b>	<b>14</b>	<b>13</b>	<b>1,195</b>
TX-1	Direct	34	34	34	33	33	32	31	30	29	31	28	27	29	22	20	19	18	17	16	16	1,324
	Indirect	7	7	7	7	7	7	7	7	7	7	8	7	6	7	5	5	4	4	4	4	308
	Induced	17	18	18	18	18	18	17	17	16	16	17	15	15	16	12	11	11	10	9	9	665
	<b>Total</b>	<b>58</b>	<b>59</b>	<b>59</b>	<b>59</b>	<b>58</b>	<b>58</b>	<b>56</b>	<b>55</b>	<b>53</b>	<b>51</b>	<b>56</b>	<b>50</b>	<b>48</b>	<b>52</b>	<b>38</b>	<b>36</b>	<b>34</b>	<b>32</b>	<b>31</b>	<b>29</b>	<b>2,297</b>
TX-2	Direct	39	40	40	40	40	40	39	38	37	35	37	34	32	34	27	25	24	22	21	20	1,449
	Indirect	7	7	8	8	8	8	8	8	7	7	8	7	7	8	5	5	5	5	4	4	296
	Induced	15	15	15	15	15	15	15	15	15	14	15	13	13	13	10	10	9	9	8	8	539
	<b>Total</b>	<b>61</b>	<b>62</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>63</b>	<b>62</b>	<b>61</b>	<b>59</b>	<b>56</b>	<b>60</b>	<b>54</b>	<b>52</b>	<b>55</b>	<b>42</b>	<b>40</b>	<b>38</b>	<b>36</b>	<b>34</b>	<b>32</b>	<b>2,284</b>
TX-3	Direct	303	302	300	297	293	288	280	273	264	252	308	258	255	297	192	181	173	164	154	145	13,706
	Indirect	175	179	181	182	182	181	178	175	170	163	190	164	161	181	124	117	111	105	99	93	7,832
	Induced	250	253	254	254	252	250	245	240	233	223	267	228	225	263	169	160	153	145	135	128	11,438
	<b>Total</b>	<b>728</b>	<b>733</b>	<b>735</b>	<b>733</b>	<b>727</b>	<b>720</b>	<b>703</b>	<b>688</b>	<b>666</b>	<b>638</b>	<b>765</b>	<b>650</b>	<b>641</b>	<b>741</b>	<b>484</b>	<b>457</b>	<b>437</b>	<b>414</b>	<b>388</b>	<b>365</b>	<b>32,976</b>
Total EIA	Direct	1,334	1,319	1,307	1,287	1,263	1,240	1,203	1,170	1,128	1,075	1,214	1,060	1,031	1,137	812	764	728	690	651	615	54,116
	Indirect	469	474	477	477	474	471	461	452	438	419	482	420	412	458	317	299	285	270	254	240	20,069
	Induced	831	834	836	833	826	817	799	781	756	722	816	715	697	771	546	514	490	464	437	413	34,273
	<b>Total</b>	<b>2,633</b>	<b>2,627</b>	<b>2,620</b>	<b>2,596</b>	<b>2,564</b>	<b>2,527</b>	<b>2,463</b>	<b>2,403</b>	<b>2,321</b>	<b>2,216</b>	<b>2,512</b>	<b>2,194</b>	<b>2,140</b>	<b>2,366</b>	<b>1,676</b>	<b>1,578</b>	<b>1,503</b>	<b>1,424</b>	<b>1,341</b>	<b>1,268</b>	<b>108,458</b>

Note: Totals may not sum due to rounding.

Source: Employment output from MMS's economic impact model MAG-PLAN.

Table 4-31a

High-Case Employment (Direct, Indirect, and Induced) Projections for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 1-20)

EIA	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
AL-1	Direct	39	108	99	99	250	114	83	67	49	52	55	60	61	63	65	67	68	66	64	61
	Indirect	10	28	24	26	67	29	21	15	10	10	11	12	12	13	13	13	14	13	13	12
	Induced	17	52	47	48	124	55	40	31	23	25	26	29	30	31	31	33	33	32	32	31
	<b>Total</b>	<b>66</b>	<b>187</b>	<b>170</b>	<b>173</b>	<b>441</b>	<b>198</b>	<b>143</b>	<b>113</b>	<b>82</b>	<b>87</b>	<b>93</b>	<b>100</b>	<b>103</b>	<b>106</b>	<b>109</b>	<b>114</b>	<b>115</b>	<b>111</b>	<b>109</b>	<b>104</b>
FL-1	Direct	7	21	20	20	51	23	17	14	12	13	14	15	15	16	16	17	18	17	17	17
	Indirect	2	6	5	6	17	7	5	3	2	2	3	3	3	3	3	3	3	3	3	3
	Induced	4	12	10	11	30	13	9	7	5	6	6	7	7	7	8	8	8	8	8	8
	<b>Total</b>	<b>13</b>	<b>39</b>	<b>35</b>	<b>37</b>	<b>98</b>	<b>43</b>	<b>30</b>	<b>24</b>	<b>19</b>	<b>21</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>29</b>	<b>29</b>	<b>29</b>	<b>29</b>	<b>28</b>
FL-2	Direct	7	20	17	18	49	20	14	10	6	6	6	6	7	7	7	7	7	7	7	7
	Indirect	2	5	4	4	12	5	3	2	1	1	2	2	2	2	2	2	2	2	2	2
	Induced	3	9	7	8	23	9	6	4	2	2	3	3	3	3	3	3	3	3	3	3
	<b>Total</b>	<b>11</b>	<b>33</b>	<b>28</b>	<b>31</b>	<b>84</b>	<b>34</b>	<b>24</b>	<b>16</b>	<b>9</b>	<b>10</b>	<b>10</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>12</b>	<b>11</b>
FL-3	Direct	10	29	25	26	68	29	21	15	11	12	12	13	14	14	14	15	15	15	15	14
	Indirect	4	11	9	10	27	11	8	5	4	4	4	4	4	5	5	5	5	5	5	5
	Induced	7	21	17	19	51	21	15	10	7	7	8	8	9	9	9	10	10	10	10	9
	<b>Total</b>	<b>20</b>	<b>61</b>	<b>51</b>	<b>55</b>	<b>147</b>	<b>60</b>	<b>44</b>	<b>31</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>26</b>	<b>27</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>	<b>29</b>	<b>29</b>	<b>28</b>
FL-4	Direct	2	18	13	17	56	18	13	4	2	2	3	3	3	3	3	3	3	3	3	3
	Indirect	1	8	6	8	24	8	6	2	1	1	2	2	2	2	2	2	2	2	2	2
	Induced	2	13	10	13	40	13	9	3	2	2	3	3	3	3	3	3	3	3	3	3
	<b>Total</b>	<b>6</b>	<b>40</b>	<b>29</b>	<b>38</b>	<b>120</b>	<b>39</b>	<b>27</b>	<b>9</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>8</b>
LA-1	Direct	25	70	67	68	168	82	61	55	46	50	53	58	60	63	65	68	69	67	65	63
	Indirect	6	16	14	15	39	18	14	11	9	10	10	11	12	13	13	14	14	14	14	13
	Induced	10	30	28	30	75	35	26	22	18	20	22	24	25	26	27	28	29	28	28	27
	<b>Total</b>	<b>41</b>	<b>116</b>	<b>110</b>	<b>113</b>	<b>282</b>	<b>135</b>	<b>101</b>	<b>88</b>	<b>73</b>	<b>80</b>	<b>85</b>	<b>93</b>	<b>97</b>	<b>101</b>	<b>105</b>	<b>110</b>	<b>112</b>	<b>109</b>	<b>107</b>	<b>103</b>
LA-2	Direct	304	807	778	806	1,952	933	662	585	466	500	531	578	595	614	634	662	672	651	636	607
	Indirect	101	260	240	251	616	284	205	170	119	127	134	146	151	156	161	168	171	167	164	157
	Induced	167	441	424	429	1,035	502	364	325	258	281	300	326	337	350	362	380	388	380	373	359
	<b>Total</b>	<b>572</b>	<b>1,507</b>	<b>1,442</b>	<b>1,486</b>	<b>3,602</b>	<b>1,719</b>	<b>1,232</b>	<b>1,080</b>	<b>844</b>	<b>909</b>	<b>965</b>	<b>1,050</b>	<b>1,083</b>	<b>1,120</b>	<b>1,157</b>	<b>1,210</b>	<b>1,232</b>	<b>1,197</b>	<b>1,173</b>	<b>1,123</b>
LA-3	Direct	314	816	754	767	1,889	878	628	521	372	392	415	451	462	475	486	505	510	489	475	452
	Indirect	89	255	227	242	624	272	196	146	101	109	115	125	129	133	138	144	147	144	141	135
	Induced	147	407	372	385	969	440	317	254	186	201	213	231	239	247	255	267	272	265	260	249
	<b>Total</b>	<b>550</b>	<b>1,477</b>	<b>1,353</b>	<b>1,394</b>	<b>3,482</b>	<b>1,589</b>	<b>1,140</b>	<b>921</b>	<b>659</b>	<b>701</b>	<b>742</b>	<b>807</b>	<b>830</b>	<b>854</b>	<b>879</b>	<b>916</b>	<b>929</b>	<b>898</b>	<b>876</b>	<b>836</b>
LA-4	Direct	168	454	422	427	1,041	493	360	305	233	248	264	287	296	305	314	326	329	317	307	291
	Indirect	73	217	190	205	531	228	168	122	86	95	100	108	113	117	122	128	132	130	129	124
	Induced	114	327	290	306	782	344	252	190	133	144	152	165	171	177	184	192	196	192	189	181
	<b>Total</b>	<b>355</b>	<b>998</b>	<b>902</b>	<b>938</b>	<b>2,354</b>	<b>1,065</b>	<b>779</b>	<b>617</b>	<b>453</b>	<b>487</b>	<b>515</b>	<b>560</b>	<b>580</b>	<b>598</b>	<b>619</b>	<b>647</b>	<b>658</b>	<b>639</b>	<b>625</b>	<b>596</b>
MS-1	Direct	22	60	54	56	141	63	45	35	24	25	26	28	29	30	30	31	32	31	30	29
	Indirect	4	11	9	10	25	11	8	6	4	4	4	4	5	5	5	5	5	5	5	4
	Induced	8	22	20	21	53	23	17	13	9	9	10	11	11	11	12	12	12	12	12	11
	<b>Total</b>	<b>35</b>	<b>92</b>	<b>83</b>	<b>86</b>	<b>219</b>	<b>97</b>	<b>69</b>	<b>54</b>	<b>36</b>	<b>38</b>	<b>40</b>	<b>43</b>	<b>44</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>	<b>47</b>	<b>46</b>	<b>44</b>
TX-1	Direct	33	85	78	79	192	89	65	54	41	43	45	49	51	52	54	56	57	56	55	52
	Indirect	9	23	20	22	55	24	17	13	9	9	10	10	11	11	11	12	12	12	12	11
	Induced	14	38	35	35	86	40	29	25	19	21	22	24	25	26	27	28	29	28	28	27
	<b>Total</b>	<b>55</b>	<b>146</b>	<b>133</b>	<b>136</b>	<b>333</b>	<b>153</b>	<b>111</b>	<b>92</b>	<b>69</b>	<b>73</b>	<b>77</b>	<b>84</b>	<b>86</b>	<b>89</b>	<b>92</b>	<b>96</b>	<b>98</b>	<b>96</b>	<b>94</b>	<b>91</b>
TX-2	Direct	24	70	67	69	172	80	58	50	42	47	50	54	56	58	60	63	65	64	63	61
	Indirect	6	19	16	18	50	20	15	10	7	8	8	9	9	10	10	11	11	12	12	11
	Induced	7	24	22	23	60	27	20	17	15	16	18	19	20	21	22	23	24	24	24	23
	<b>Total</b>	<b>37</b>	<b>113</b>	<b>106</b>	<b>110</b>	<b>282</b>	<b>128</b>	<b>92</b>	<b>76</b>	<b>64</b>	<b>71</b>	<b>76</b>	<b>82</b>	<b>85</b>	<b>89</b>	<b>93</b>	<b>98</b>	<b>101</b>	<b>99</b>	<b>99</b>	<b>95</b>
TX-3	Direct	498	1,292	1,117	1,237	3,105	1,306	914	669	431	435	440	476	490	486	499	520	527	510	499	477
	Indirect	251	670	573	623	1,578	665	483	348	213	224	229	248	257	259	270	283	291	288	285	275
	Induced	398	1,039	890	965	2,428	1,027	745	539	322	333	340	368	381	382	395	414	423	415	409	393
	<b>Total</b>	<b>1,147</b>	<b>3,001</b>	<b>2,580</b>	<b>2,825</b>	<b>7,111</b>	<b>2,998</b>	<b>2,142</b>	<b>1,557</b>	<b>966</b>	<b>992</b>	<b>1,008</b>	<b>1,092</b>	<b>1,128</b>	<b>1,128</b>	<b>1,164</b>	<b>1,217</b>	<b>1,242</b>	<b>1,212</b>	<b>1,193</b>	<b>1,145</b>
Total EIA	Direct	1,454	3,849	3,510	3,689	9,134	4,128	2,939	2,384	1,734	1,824	1,913	2,078	2,138	2,185	2,247	2,341	2,373	2,292	2,236	2,133
	Indirect	557	1,529	1,341	1,441	3,664	1,582	1,148	854	566	605	630	684	709	726	754	791	810	795	785	755
	Induced	897	2,433	2,173	2,293	5,756	2,548	1,848	1,440	1,001	1,069	1,121	1,218	1,259	1,292	1,338	1,402	1,432	1,400	1,378	1,323
	<b>Total</b>	<b>2,907</b>	<b>7,811</b>	<b>7,024</b>	<b>7,423</b>	<b>18,554</b>	<b>8,258</b>	<b>5,935</b>	<b>4,678</b>	<b>3,301</b>	<b>3,498</b>	<b>3,665</b>	<b>3,979</b>	<b>4,107</b>	<b>4,204</b>	<b>4,339</b>	<b>4,533</b>	<b>4,615</b>	<b>4,488</b>	<b>4,400</b>	<b>4,212</b>

Source: Employment output from MMS's economic impact model MAG-PLAN.

Note: Totals may not sum due to rounding.

Table 4-31b

High-Case Employment (Direct, Indirect, and Induced) Projections  
for a Proposed CPA Sale by Economic Impact Area Over 40 Years (Years 21-40)

EIA	Type	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total
AL-1	Direct	59	58	58	57	56	55	54	52	51	49	51	46	45	53	41	38	34	32	31	29	2,539
	Indirect	12	12	12	11	11	11	11	11	10	10	11	10	9	12	9	8	7	6	6	6	558
	Induced	29	30	30	30	29	29	28	28	27	26	27	24	24	28	21	20	18	17	16	15	1,266
	<b>Total</b>	<b>100</b>	<b>99</b>	<b>99</b>	<b>98</b>	<b>97</b>	<b>96</b>	<b>93</b>	<b>91</b>	<b>88</b>	<b>84</b>	<b>88</b>	<b>80</b>	<b>77</b>	<b>93</b>	<b>71</b>	<b>67</b>	<b>59</b>	<b>56</b>	<b>53</b>	<b>50</b>	<b>4,363</b>
FL-1	Direct	16	17	17	17	17	17	17	17	16	16	16	14	14	15	12	12	11	10	10	9	648
	Indirect	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	138
	Induced	8	8	8	8	8	8	8	8	8	8	8	7	7	7	6	6	5	5	5	4	325
	<b>Total</b>	<b>27</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>29</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>26</b>	<b>24</b>	<b>23</b>	<b>25</b>	<b>21</b>	<b>20</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>1,111</b>
FL-2	Direct	6	6	6	6	6	6	6	6	6	5	6	5	5	7	5	5	4	4	4	3	340
	Indirect	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	89
	Induced	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	155
	<b>Total</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>12</b>	<b>9</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>584</b>
FL-3	Direct	14	14	14	14	14	14	14	13	13	12	13	12	11	13	10	10	9	8	8	8	623
	Indirect	5	5	5	5	5	5	5	4	4	4	4	4	4	5	4	3	3	3	3	3	221
	Induced	9	9	9	9	9	9	9	9	9	9	9	8	8	9	7	7	6	6	6	5	429
	<b>Total</b>	<b>27</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>27</b>	<b>27</b>	<b>26</b>	<b>25</b>	<b>26</b>	<b>24</b>	<b>23</b>	<b>27</b>	<b>21</b>	<b>20</b>	<b>18</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>1,273</b>
FL-4	Direct	3	3	3	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2	241
	Indirect	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	120
	Induced	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	198
	<b>Total</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>559</b>
LA-1	Direct	61	60	60	59	58	57	56	54	53	51	52	48	46	51	42	40	37	35	33	31	2,306
	Indirect	13	13	13	13	13	12	12	12	11	11	11	11	10	12	10	9	8	8	8	7	494
	Induced	26	27	27	27	27	26	26	25	25	24	24	22	21	24	20	19	17	16	15	15	1,011
	<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>99</b>	<b>97</b>	<b>96</b>	<b>94</b>	<b>91</b>	<b>89</b>	<b>85</b>	<b>87</b>	<b>81</b>	<b>78</b>	<b>87</b>	<b>71</b>	<b>68</b>	<b>62</b>	<b>59</b>	<b>56</b>	<b>53</b>	<b>3,812</b>
LA-2	Direct	583	582	581	576	568	560	547	532	516	495	508	464	444	505	408	393	357	337	320	302	23,547
	Indirect	152	153	154	153	152	151	148	144	140	135	141	128	124	146	114	109	98	92	88	83	6,555
	Induced	347	351	354	354	352	349	343	335	326	313	320	293	280	313	256	244	222	210	199	188	13,729
	<b>Total</b>	<b>1,083</b>	<b>1,086</b>	<b>1,088</b>	<b>1,083</b>	<b>1,072</b>	<b>1,059</b>	<b>1,037</b>	<b>1,011</b>	<b>982</b>	<b>943</b>	<b>969</b>	<b>885</b>	<b>848</b>	<b>964</b>	<b>777</b>	<b>746</b>	<b>677</b>	<b>639</b>	<b>606</b>	<b>572</b>	<b>43,831</b>
LA-3	Direct	433	428	423	416	407	399	387	375	362	347	367	331	322	395	296	281	250	236	224	211	18,939
	Indirect	131	132	133	133	132	130	128	125	122	117	126	113	111	139	102	95	84	79	75	71	5,884
	Induced	240	242	243	242	240	237	233	227	220	212	223	202	196	235	179	169	151	142	135	127	10,266
	<b>Total</b>	<b>804</b>	<b>801</b>	<b>798</b>	<b>790</b>	<b>778</b>	<b>766</b>	<b>748</b>	<b>727</b>	<b>704</b>	<b>676</b>	<b>716</b>	<b>647</b>	<b>628</b>	<b>769</b>	<b>577</b>	<b>546</b>	<b>485</b>	<b>456</b>	<b>433</b>	<b>408</b>	<b>35,090</b>
LA-4	Direct	278	274	270	265	259	253	246	238	230	221	238	210	203	250	189	182	164	154	146	138	11,598
	Indirect	120	122	124	125	125	123	123	121	118	114	124	110	107	134	98	93	83	77	73	69	5,306
	Induced	175	176	177	177	175	174	171	167	162	156	171	151	147	186	136	130	115	108	102	96	7,729
	<b>Total</b>	<b>573</b>	<b>572</b>	<b>571</b>	<b>567</b>	<b>560</b>	<b>552</b>	<b>540</b>	<b>526</b>	<b>510</b>	<b>491</b>	<b>532</b>	<b>472</b>	<b>457</b>	<b>569</b>	<b>423</b>	<b>405</b>	<b>362</b>	<b>340</b>	<b>322</b>	<b>304</b>	<b>24,633</b>
MS-1	Direct	27	27	27	27	26	26	25	25	24	23	24	22	21	26	20	18	16	15	15	14	1,269
	Indirect	4	4	4	4	4	4	4	4	4	3	4	3	3	4	3	3	2	2	2	2	206
	Induced	11	11	11	11	11	10	10	10	10	10	9	10	9	10	8	7	7	6	6	6	489
	<b>Total</b>	<b>42</b>	<b>42</b>	<b>42</b>	<b>42</b>	<b>41</b>	<b>40</b>	<b>39</b>	<b>38</b>	<b>37</b>	<b>36</b>	<b>38</b>	<b>34</b>	<b>33</b>	<b>41</b>	<b>30</b>	<b>29</b>	<b>25</b>	<b>24</b>	<b>23</b>	<b>21</b>	<b>1,964</b>
TX-1	Direct	51	51	52	52	51	51	50	49	48	46	48	43	42	49	38	36	32	30	29	27	2,159
	Indirect	11	11	11	12	12	12	11	11	11	10	11	10	10	12	9	8	7	7	7	6	513
	Induced	26	27	27	28	28	27	27	27	26	25	26	23	23	26	20	19	17	16	16	15	1,076
	<b>Total</b>	<b>88</b>	<b>89</b>	<b>91</b>	<b>91</b>	<b>91</b>	<b>90</b>	<b>89</b>	<b>87</b>	<b>84</b>	<b>81</b>	<b>84</b>	<b>77</b>	<b>74</b>	<b>87</b>	<b>67</b>	<b>64</b>	<b>57</b>	<b>54</b>	<b>51</b>	<b>48</b>	<b>3,748</b>
TX-2	Direct	59	61	62	62	62	62	61	60	58	56	57	53	50	56	45	43	39	37	35	33	2,327
	Indirect	11	11	12	12	12	12	12	12	12	11	12	11	11	13	10	9	8	7	7	7	486
	Induced	22	23	24	24	24	24	24	24	23	22	23	21	20	22	18	17	15	14	14	13	860
	<b>Total</b>	<b>93</b>	<b>95</b>	<b>97</b>	<b>98</b>	<b>99</b>	<b>99</b>	<b>97</b>	<b>96</b>	<b>93</b>	<b>90</b>	<b>92</b>	<b>85</b>	<b>81</b>	<b>92</b>	<b>73</b>	<b>69</b>	<b>62</b>	<b>59</b>	<b>56</b>	<b>52</b>	<b>3,673</b>
TX-3	Direct	460	461	462	460	455	450	440	429	416	401	449	391	383	513	359	347	305	286	270	255	23,919
	Indirect	268	275	280	284	285	285	282	277	271	261	284	253	246	311	227	216	191	179	169	160	13,319
	Induced	381	388	393	395	395	393	387	379	369	356	394	348	341	449	317	302	265	248	235	221	19,563
	<b>Total</b>	<b>1,110</b>	<b>1,123</b>	<b>1,135</b>	<b>1,140</b>	<b>1,135</b>	<b>1,127</b>	<b>1,109</b>	<b>1,085</b>	<b>1,056</b>	<b>1,018</b>	<b>1,128</b>	<b>992</b>	<b>970</b>	<b>1,273</b>	<b>903</b>	<b>865</b>	<b>762</b>	<b>713</b>	<b>675</b>	<b>635</b>	<b>56,801</b>
Total EIA	Direct	2,051	2,043	2,035	2,015	1,985	1,954	1,906	1,853	1,796	1,724	1,831	1,643	1,589	1,937	1,468	1,408	1,261	1,186	1,126	1,061	90,455
	Indirect	732	744	754	759	757	754	743	728	709	684	735	659	640	794	590	560	497	466	442	417	33,890
	Induced	1,281	1,296	1,308	1,311	1,304	1,295	1,273	1,245	1,211	1,166	1,240	1,115	1,080	1,317	993	945	844	793	752	708	57,098
	<b>Total</b>	<b>4,065</b>	<b>4,083</b>	<b>4,097</b>	<b>4,085</b>	<b>4,047</b>	<b>4,002</b>	<b>3,922</b>	<b>3,825</b>	<b>3,716</b>	<b>3,573</b>	<b>3,806</b>	<b>3,417</b>	<b>3,310</b>	<b>4,048</b>	<b>3,051</b>	<b>2,914</b>	<b>2,603</b>	<b>2,445</b>	<b>2,319</b>	<b>2,186</b>	<b>181,443</b>

Source: Employment output from MMS's economic impact model MAG-PLAN.

Note: Totals may not sum due to rounding.

Table 4-32

Employment Projected from a Proposed CPA Lease Sale as a Percent of Total Employment by Economic Impact Area

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4		Total EIA	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2007	1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008	2	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.5	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2009	3	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2010	4	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2011	5	0.1	0.1	0.0	0.1	0.1	0.2	0.5	1.1	0.2	0.5	0.2	0.4	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
2012	6	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.1	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
2013	7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2014	8	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2015	9	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2016	10	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2017	11	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2018	12	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2019	13	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2020	14	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2021	15	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2022	16	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	17	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	18	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	19	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2026	20	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2027	21	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2028	22	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2029	23	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2030	24	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2031	25	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2032	26	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2033	27	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2034	28	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2035	29	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2036	30	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2037	31	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2038	32	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2039	33	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2040	34	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2041	35	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2042	36	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2043	37	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2044	38	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2045	39	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2046	40	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).

Table 4-33

Offshore Spills  $\geq$ 1,000 Barrels from Accidents Associated with OCS Facility Operations (1964-2005)

Year	Volume Spilled (bbl)	Area and Block	Water Depth (ft)	Distance from Shore (mi)	Cause of Spill
1964	2,559	EI 208	94	48	Freighter struck production platform, fire
1964	5,180	EI 208	94	48	Hurricane Hilda destroyed 3 production platforms, blowout
1964	5,100	SS 149	55	33	Hurricane Hilda destroyed production platform, blowout
1964	1,589	SS 199	102	44	Hurricane Hilda destroyed production platform, caused storage oil loss
1965	1,688 <sup>1</sup>	SS 29	15	7	Drilling blowout
1969 <sup>1</sup>	80,000	*	190	6	Drilling blowout
1969	2,500	SS 72	30	6	Storm caused vessel to bump drilling rig resulting in blowout
1970	30,000	MP 41	39	14	Fire destroyed production platform, blowout
1970	53,000	ST 26	60	8	Workover caused fire, destroyed platform and 2 drilling rigs
1973	9,935	WD 79	110	17	Oil storage tank ruptured
1973	7,000	SP 23	61	15	Rough seas sunk stationary storage barge
1979	1,500 <sup>2</sup>	MP 151	280	10	Collision during rough seas between service vessel and drilling rig, damaged rig's diesel tank
1980	1,456	HI 206	60	27	During ballasting, for Hurricane Jeanne, oil storage tank overflowed
1998	1,012 <sup>3</sup>	EW 873	1,271	61	Zinc bromide solution, human error, valve left open
2002	1,800 <sup>4</sup>	WR 206	8,180	160	SBF release, loop current and severe weather, emergency riser disconnect
2003	1,421 <sup>4</sup>	MC 778/822	6,040	75	SBF release, weather, external forces, riser parted
2004	1,034 <sup>4</sup>	GC 653	4,238	120	SBF release, weather, external forces, emergency riser disconnect
2005 <sup>#</sup>	2,000 <sup>1</sup>	EI 314	230	78	Hurricane Rita destroyed platform
2005 <sup>#</sup>	1,572 <sup>2</sup>	SS 250	182	48	Hurricane Rita destroyed drilling rig
2005	1,494 <sup>2</sup>	SM 146	232	79	Hurricane Rita

Notes: Gulf of Mexico crude oil unless otherwise indicated.

<sup>1</sup> condensate.

<sup>2</sup> diesel or other refined oil.

<sup>3</sup> chemical spill.

<sup>4</sup> synthetic base fluid.

\* Occurred in Santa Barbara Channel, California.

# Preliminary information.

EI = Eugene Island Area

SS = Ship Shoal Area

MP = Main Pass Area

ST = South Timbalier Area

WD = West Delta Area

SP = South Pass Area

HI = High Island Area

EW = Ewing Bank

WR = Walker Ridge

MC = Mississippi Canyon

GC = Green Canyon

SM = South Marsh Island

Sources: Anderson and LaBelle, 2000; USDOJ, MMS, 2006a; Anderson, personal communication, June and August 2006.

Table 4-34

Offshore Spills  $\geq 1,000$  bbl from Accidents Associated with OCS Pipeline Oil Transport (1964-2005)

Year	Volume Spilled (bbl)	Area and Block	Water Depth (ft)	Distance from Shore (mi)	Cause of Spill
1967	160,638	WD 73	168	22	Internal corrosion caused by anchor kink
1968	6,000	ST 131	160	28	Anchor drag
1969	7,532	MP 299	210	17	Anchor drag
1973	5,000	WD 73	168	22	Internal corrosion
1974	19,833	EI 317	240	75	Anchor drag
1974	3,500	MP 73	141	9	Hurricane Carmen, connection torn loose
1976	4,000	EI 297	210	71	Trawl drag
1981	5,100	SP 60	185	4	Service vessel's anchor
1988	15,576	GAL 2A	75	34	Anchor drag
1990	14,423 <sup>1</sup>	SS 281	197	60	Anchor drag
1990	4,569	EI 314	230	78	Trawl drag
1992	2,000	SP 8	30	6	During Hurricane Andrew, drilling rig's anchor drag
1994	4,533 <sup>1</sup>	SS 281	197	60	Trawl drag
1998	1,211 <sup>1</sup>	EC 334	264	105	Service vessel anchor drag during rescue operation
1998	8,212	SP 38	10	6	During Hurricane Georges, damage from mudslide
1999	3,200	SS 241	133	50	Jack-up barge damage
2000	2,240	SS 332	435	75	Drilling rig anchor drag
2004 <sup>3</sup>	1,720	MC 20	479	19	Hurricane Ivan mud slide
2004	4,834 <sup>2</sup>	MP 261	1475	75	Hurricane Ivan, anchor drag
2005#	>100-1,812 <sup>1</sup>	EI 51	17	20	Hurricane Rita, suspected anchor or mooring drag
2005#	>100-1,551 <sup>1</sup>	EI 95	17	24	Hurricane Rita, suspected anchor or mooring drag
2005#	200-2,000	MC 109	1,000	18	Hurricane Katrina

Notes: Crude oil unless otherwise indicated.

<sup>1</sup>condensate.<sup>2</sup>methanol.

# = Preliminary information.

WD = West Delta Area

ST = South Timbalier Area

MP = Main Pass Area

EI = Eugene Island Area

SP = South Pass Area

SS = Ship Shoal Area

EC = East Cameron Area

MC = Mississippi Canyon

Sources: Anderson and LaBelle, 2000; Anderson, personal communication, August 2006.

Table 4-35  
 Mean Number and Sizes of Spills Estimated to Occur in  
 OCS Offshore Waters from an Accident Related  
 to Activities Supporting a Proposed Action Over a 40-Year Time Period

Spill Size Group	Spill Rate (Spills/BBO) <sup>1</sup>	Number of Spills Estimated for a WPA Proposed Action <sup>2</sup>	Number of Spills Estimated for a CPA Proposed Action <sup>2</sup>	Estimated Spill Size <sup>1</sup>
0-1.0 bbl	3,357.31	812-1,420	2,605-4,337	0.07 <sup>3</sup>
1.1-9.9 bbl	74.7	18-32	58-97	3 <sup>4</sup>
10.0-49.9 bbl	16.18	4-7	13-21	20 <sup>4</sup>
50.0-499.9 bbl	6.37	2-3	5-8	90 <sup>4</sup>
500.0-999.9 bbl	0.52	<1	<1-1	640 <sup>4</sup>
≥1,000 bbl	1.51	<1-1	1-2	4,600 <sup>4</sup>
≥10,000 bbl	0.39	<1	<1-1	15,000 <sup>4</sup>

Notes: The number of spills estimated is derived by application of the historical rate of spills per volume crude oil handled (1985-1999) (Anderson and LaBelle, 2000) to the projected production for a proposed action in the WPA or CPA (Table 4-1). Projected production is an estimate of recoverable resource and is influenced by supporting infrastructure, as well as economic and technological factors. The actual number of spills that may occur in the future could vary from the estimated number.

<sup>1</sup> Source: Anderson and LaBelle, 2000.

<sup>2</sup> Source: Table 4-1.

<sup>3</sup> Average spill size.

<sup>4</sup> Median spill size.

Table 4-36

Mass Balance of a Hypothetical Spill of 4,600 bbl Spilled over a 12-Hour Period from a Pipeline Break during the Summer, 50 Miles Off Louisiana  
(oil characteristics: API 30° and stable emulsion formation)

Time Elapsed after Spill Event Begins (hr)	Estimated Volume in Slick (Spilled Oil Remaining on Water Surface)* (bbl)	Estimated Open Water Slick Thickness (mm)	Estimated Area of Open Water Covered by Slick* (ac)	Estimated Length of Shoreline Contacted, if Slick were to Reach Land (km)	Estimated Volume Lost from Slick by Natural Weathering (bbl)	Estimated Volume Removed from Slick Using Chemical Dispersants (bbl)	Estimated Volume Removed from Slick by Mechanical Cleanup (bbl)	Percent of Total Volume Cleaned Up (%)	Total Percent of Slick Lost from Natural Weathering (%)	Percent of Total Spill Mass Evaporated (%)	Percent of Total Spill Mass Naturally Dispersed (%)
4	1,260	1.4	35	5	220	0	0	0	15	15	0
12	2,620	1	200	30	920	1,050	0	23	21	20	1
24	1,330	1	100	15	1,060	1,750	460	48	24	22	2
48	270	1	20	3	1,210	2,050	1,070	68	27	24	3
72	270	1	10	1	1,250	2,050	1,070	68	28	27	1
240	50**	1	5	1	1,430	2,050	1,070	68	32	30	2

\* Assumes continuous coverage of water surface by slick for first 4 hours and noncontinuous, patchy, wind-row coverage after 4 hours. 50% of the slick would become emulsified, with the remaining being a light sheen.

\*\* After 10 days, the 50 bbl remaining is expected to occur as a rainbow sheen, the slick broken up into many, small slicks spread out over approximately 200 ac. These small sheens would dissipate in less than a day.



Table 4-37

Mass Balance of a Hypothetical Spill of 4,600 bbl Spilled over 12-Hour Period from an OCS Pipeline Break during the Winter, 65 Miles off Texas (oil characteristics: API 35°, no emulsion formation)

Time Elapsed after Spill Event Begins (hr/day)	Estimated Volume in Slick (Spilled Oil Remaining on Water Surface)* (bbl)	Estimated Open Water Slick Thickness (mm)	Estimated Area of Open Water Covered by Slick* (ac)	Estimated Length of Shoreline Contacted, if Slick were to Reach Land (km)	Estimated Volume Lost from Slick by Natural Weathering (bbl)	Estimated Volume Removed from Slick Using Chemical Dispersants (bbl)	Estimated Volume Removed from Slick by Mechanical Cleanup (bbl)	Percent of Total Volume Cleaned Up (%)	Total Percent of Slick Lost from Natural Weathering (%)	Percent of Total Spill Mass Evaporated (%)	Percent of Total Spill Mass Naturally Dispersed (%)
4 hr	1,140	0.7	60	10	1,180	0	0	0	26	21	5
12 hr	1,870	0.4	350	50	2,025	710	0	16	44	27	18
24 hr	450	0.3	140	20	2,900	1,040	180	27	64	30	35
48 hr	0				3,380	1,040	180	27	73	31	42
3 days	0										
10 days	0										

\* Assumes continuous coverage of water surface by slick for first 4 hours, then noncontinuous, patchy coverage after 4 hours.

Table 4-38

Estimated Number of Spills that Could Happen in Gulf Coastal Waters  
from an Accident Related to Activities Supporting a Proposed Action

Size Category	Assumed Size	WPA Proposed Action	CPA Proposed Action
Total		15-34	46-102
≤1 bbl	1 bbl	13-29	42-92
>1 bbl and <50 bbl	3 bbl	1-2	2-4
≥50 bbl and <1,000 bbl	150 bbl	1-2	2-5
≥1,000 bbl	3,000 bbl	<1-1	<1-1

Note: The estimated number of spills is obtained from the count of coastal spills for 2001 proportioned to reflect that OCS oil comprised 19 percent of the oil crossing into GOM coastal waters in 2001. Intrastate oil and refined product transport were not included. The low estimate in the range was obtained from Dickey (2006) and the high estimate was obtained from aggregated national data available on the Internet (USCG, 2001).

Sources: Dickey, 2006; USCG, 2001; National Ocean Economics Program, 2006; USDOE, EIA, 2006.

Table 4-39

Number and Volume of Chemical and Synthetic-Based Fluid Spills  
in the Gulf of Mexico during the Years 2001-2004

Spill Size (bbl)	2001		2002		2003		2004	
	Chemical	SBF	Chemical	SBF	Chemical	SBF	Chemical	SBF
1 - <50	9	4	6	11	2	11	16	5
50 - <100	0	0	0	2	0	2	1	1
100 - <500	2	3	2	1	1	3	2	2
500 - <1,000	0	1	0	2	0	1	0	1
>1,000	0	0	0	1	0	1	1	1
Total	11	8	8	17	3	18	20	10

Note: For the years 2001-2003, the total volume of drilling fluid was recorded. For 2004, the synthetic-based fluid fraction of the whole drilling fluid was recorded.

Table 4-40

Record of Past Spills Where >1,000 bbl of Synthetic-Based Fluid (SBF) was Released

Date	Location	Water Depth (ft)	SBF Volume Released *	Cause
03/01/02	WR 206	8,180	1,800	Emergency riser disconnect
05/21/03	MC 822	6,040	1,421	Riser failure
04/11/04	GC 653	4,238	1,034	Emergency riser disconnect

\* Volume reflects the amount of synthetic fluid, not the total drilling mud released.

Table 4-41

Estimated Air Emissions for OCS and Non-OCS Activities  
in the Western and Central Gulf of Mexico Planning Areas

Activity	Pollutant (tons/yr)				
	NO <sub>x</sub>	SO <sub>2</sub>	PM <sub>10</sub>	CO	VOC
Production Platforms	112,367	4,999	1,136	132,659	85,714
Exploration Wells	7,083-9,107	1,195-1,536	176-226	744-956	68-88
Platform Construction/ Removal	15,552-15,691	2,650-2,674	388-392	1,936-1,956	199-201
Pipelaying Vessels	2,495-4,990	419-838	62-125	261-523	24-48
Support Vessels	46,455-48,947	7,937-8,362	1,160-1,222	5,997-6,319	621-654
Survey Vessels	111	18	3	11	1
Helicopters	1,179-1,242	145-153	88-92	4,969-5,235	1,873-1,974
Tanker/Barge Transport	3,165	544	81	528	2,572
Total	188,407-195,620	17,906-19,124	3,094-3,277	147,104-148,187	91,072-91,251
2000 Non-Oil/Gas OCS Emissions	49,923	9,280	1,371	13,536	24,444

Table 4-42

Recommended Mitigation Techniques Used to Avoid or Reduce Adverse Impact to Wetlands by  
Pipelines, Canals, Dredging, and Dredged Material Placement

Technique	Decision Process	Factors to Consider
Pipeline Construction		
Avoidance	Route selection and location Evaluation of potential routes that avoid wetlands entirely Shared right-of-way (ROW) and pipelines Using all or part of an existing ROW would avoid new impacts to wetlands	Length of route Difficulty of the land for pipeline installation, i.e., access points and sediment characteristics Presence of other pipelines Presence of transportation corridors Density of surrounding developments Number of different land owners
Minimization	Necessity of pipeline contents	Environment function Timing of the project Previous pipeline installations Availability of equipment
Location/Route Selection	Early planning Considering wetland type Use of aerial photography as well as digital and topographic maps combined with field surveys to identify route of minimal impact	Most routes are predetermined by the beginning and end points Flexibility within general route to locate sections of pipelines to one side or another to take advantage of upland areas, existing ROW, etc.
Existing ROW/Corridors	Plan routes paralleling existing pipelines (safety issues) Timing right to share section of pipeline between or among users	Group pipelines in corridors where impacts are limited to smaller areas of coastal wetlands
Construction/Installation	Methods depend on environment pipeline is constructed Flotation canals Push-pull method Single versus double ditching techniques Directional drilling *	Choice of method has implications for Type of impact Access impact Impact from specific equipment
Dredging		
Dredge and Other Material Disposal	Features associated with pipeline canals and navigation channels Avoid levees by spray dredging, levee manipulation/spoil bank removal, and canal backfilling	Navigation channels and some canals must be left open for access Impacts associated with spoil banks include soil compaction, impoundment, and creation of upland vegetation
Dredge Material Bank Removal	Identify areas to place dredge Navigation channels Canals that cannot be backfilled Potential use for filling nearby old canal or abandoned navigation channels Off-site mitigation	Due to expense and difficulty in many coastal areas only used in sensitive areas
Levee Manipulation	Dredge material should allow water to pass through openings in the line of dredge placement	Levees used as walkways and built from material placed in a long line paralleling the length of the project is detrimental to marsh and should be built discontinuous instead Must maintain natural hydrologic pattern Technique is post-construction technique where sections of dredge banks are removed in order to restore hydrologic flow
Spray Dredge	Suggested and used to avoid completely the creation of dredge banks Spray dredging places material over a large area of marsh surface at a depth that avoids destroying vegetation or altering hydrology	Normally dredge is deposited discontinuously and unevenly, enabling the avoidance of sensitive habitats or minimize spoil over small creeks More costly than more traditional use of the bucket dredge; most contractors along the Gulf Coast have not invested in spray dredge technology
Canals and Channels		
Backfill	Suggested as a way to minimize impacts from canals and to restore impacted habitats Based on OCS permit information, this is the most common required mitigation in recent years In Texas and Louisiana, a typical backfilled pipeline canal results in 75% reduction in direct impacts to the marsh as compared to non-backfilled canals (Baumann and Turner, 1990)	Involves returning soil into the canal so that the elevation is restored as close as possible to pre-construction elevation May occur on-site for canal restoration, as well as off-site as mitigation for other dredging operations Intended benefits of backfilling are reestablishment of marsh vegetation in the canal and on the regraded spoil bank, and restoration of marsh soils on bottom of the canal

Technique	Decision Process	Factors to Consider
Canals and Channels (continued)		
Wood Chipping	A new technique unique to forested wetlands Regulatory personnel believe the use of windrows should be avoided. Requirement for chipping on-site started approximately 1992/1993	Prior to 1996, trees removed for ROW being pushed to the side created <i>windrows</i> with the potential to act as hydrologic barriers Success of wood chipping remains undetermined. Problems encountered include equipment not adapted to the function of marshes, equipment is expensive, and process is time-consuming
Erosion Stabilization	Many impacts are from pipeline canals and navigation channels Stabilization of banks is critical Lack of stabilization can result in slumping of canal sides and blockage of natural creeks/drainage streams	Erosion control measures are required through the use of Best Management Practices Requirement is usually erosion control/siltation fences
Revegetation	Often required by permits Extremely valuable to the acceleration of marsh recover over first growing season Most extensive data exist for the revegetation of dunes, but through the use of directional drilling, is not the concern as in past cases	Stabilizes shorelines, shore banks, and areas surrounding stream crossings where erosion is most likely to occur Helps to reduce sedimentation and erosion
Plugs/Dams	Structures have been used frequently in order to mitigate adverse hydrodynamic impacts and accelerated erosion, i.e., dams, weirs, bulkheads, rip-rap, shell/gravel mats, and biodegradable mats	Reduces erosion and provides barriers to saltwater intrusion Plugs maintain elevated marsh water levels Prevent saltwater intrusion into low-salinity marshes Reduces tidal exchange thereby reducing bank erosion
Erosion Control during Project	Construction of pipelines and navigation Channels is governed by the of Best Management Practices and erosion control during the construction phase is a requirement	Natural features of each construction site should be identified for the necessary erosion control
Timing of Project	Seasonal timing of the project can minimize impacts Avoid impacts to endangered species, particularly bird breeding seasons	Expanding restrictions to ensure there will be at least part of one growing season for re-establishment of vegetation before fall/winter has been discussed, but dismissed for economic reasons to industry
Restoration	Can occur either immediately, post construction, or many years after pipeline and navigation canal construction	Backfilling of canals, resulting in levee removal, has been a requirement for most pipeline installation projects There is a benefit to backfilling old canals and navigation channels in order to reduce or reverse the trend of wetland losses in coastal Louisiana Other options include the use of imported material
Compensation	Typically occurs through the creation of new wetland habitat or through a cash payment to the appropriate land management agency Allows for the creation and restoration of lost wetland habitat In Louisiana, the payment of cash for wetlands into a State trust fund is administered by LADNR and is controversial This fund has been in existence for several years and has a significant accumulation of funds; however, no creation projects have yet to tap into it	In many cases not an option Saline marshes have yet to be successfully created, and finding appropriate locations to create salt marsh is difficult Forested wetlands are also difficult to compensate
* Trenchless, or directional drilling, is the newest and favored technique in sensitive habitats. This technique is considered to be extremely protective of sensitive habitats. At present, directional drilling is required almost without exception for crossing barrier island and shore faces. Impacts are limited to the access and staging sites for the equipment. By using directional drilling, pipeline installation can occur without having to cut through shore facings, minimizing any erosion and surface habitat disturbance.		

Table 4-43  
Population Projected for the OCS Program by Economic Impact Area

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4		Total EIA	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2007	1	9,095	-11,324	4,142	-5,283	6,296	-7,742	77,627	-96,631	61,733	-77,858	40,100	-50,512	9,239	-11,615	7,399	-9,121	113,914	-152,333	1,999	-2,483	1,175	-1,573	2,230	-1,455	863	-1,214	335,812	-429,143
2008	2	9,374	-12,118	4,257	-5,645	6,515	-8,297	80,400	-103,654	63,690	-83,389	41,237	-53,882	9,684	-12,619	7,826	-9,988	118,188	-164,245	2,099	-2,704	1,208	-1,687	2,314	-1,557	895	-1,323	347,686	-461,107
2009	3	9,684	-12,730	4,387	-5,917	6,750	-8,739	83,458	-109,205	65,844	-87,659	42,493	-56,433	10,171	-13,468	8,281	-10,724	122,873	-173,413	2,208	-2,888	1,245	-1,766	2,406	-1,626	927	-1,382	360,728	-485,951
2010	4	10,126	-12,933	4,578	-5,989	7,060	-8,937	87,243	-111,615	68,874	-89,113	44,466	-57,203	10,748	-13,920	8,808	-11,184	129,363	-176,638	2,340	-2,990	1,313	-1,780	2,548	-1,635	1,035	-1,383	378,502	-495,319
2011	5	9,936	-13,050	4,478	-6,019	6,999	-9,073	86,679	-113,270	67,730	-89,972	43,473	-57,606	10,783	-14,287	8,916	-11,586	127,425	-178,851	2,351	-3,074	1,268	-1,784	2,498	-1,635	945	-1,385	373,482	-501,591
2012	6	10,478	-13,326	4,714	-6,122	7,371	-9,325	91,218	-116,439	71,465	-91,955	45,973	-58,769	11,454	-14,815	9,514	-12,113	135,120	-182,814	2,505	-3,194	1,354	-1,808	2,670	-1,653	1,084	-1,403	394,921	-513,735
2013	7	10,338	-13,497	4,635	-6,174	7,351	-9,508	91,226	-118,771	70,670	-93,226	45,189	-59,473	11,543	-15,229	9,667	-12,556	133,392	-185,078	2,529	-3,293	1,313	-1,818	2,628	-1,659	987	-1,410	391,467	-521,692
2014	8	10,839	-13,643	4,852	-6,214	7,693	-9,677	95,461	-120,916	74,165	-94,346	47,511	-60,136	12,178	-15,608	10,234	-12,971	140,428	-186,697	2,676	-3,387	1,395	-1,826	2,789	-1,662	1,121	-1,417	411,342	-528,501
2015	9	10,680	-13,694	4,769	-6,213	7,647	-9,780	95,166	-122,273	73,209	-94,766	46,842	-60,571	12,239	-15,881	10,369	-13,317	138,922	-187,332	2,697	-3,462	1,358	-1,823	2,754	-1,657	1,042	-1,421	407,694	-532,191
2016	10	11,125	-13,831	4,960	-6,247	7,957	-9,941	99,110	-124,390	76,346	-95,803	48,936	-61,261	12,827	-16,238	10,901	-13,722	145,027	-188,596	2,834	-3,556	1,428	-1,830	2,896	-1,659	1,149	-1,432	425,496	-538,507
2017	11	10,892	-13,792	4,846	-6,208	7,834	-9,950	97,854	-124,599	74,900	-95,629	47,760	-61,079	12,729	-16,332	10,849	-13,859	141,820	-187,356	2,813	-3,584	1,381	-1,814	2,824	-1,642	1,056	-1,423	417,557	-537,266
2018	12	11,114	-13,629	4,944	-6,116	7,952	-9,862	99,359	-123,623	76,533	-94,630	48,862	-60,392	13,007	-16,279	11,074	-13,864	145,249	-184,745	2,873	-3,578	1,428	-1,785	2,904	-1,613	1,156	-1,407	426,454	-531,524
2019	13	10,725	-13,458	4,759	-6,025	7,720	-9,756	96,715	-122,436	74,002	-93,575	47,021	-59,631	12,745	-16,214	10,898	-13,845	140,359	-182,358	2,817	-3,566	1,361	-1,758	2,797	-1,585	1,054	-1,386	412,974	-525,593
2020	14	10,965	-13,317	4,865	-5,950	7,855	-9,668	98,379	-121,436	75,684	-92,662	48,231	-59,070	13,039	-16,166	11,146	-13,837	143,999	-180,358	2,883	-3,559	1,408	-1,733	2,882	-1,560	1,153	-1,360	422,488	-520,675
2021	15	10,666	-13,213	4,720	-5,893	7,687	-9,593	96,535	-120,685	73,762	-92,042	46,836	-58,577	12,857	-16,149	11,034	-13,837	140,014	-178,840	2,845	-3,556	1,351	-1,715	2,796	-1,542	1,057	-1,341	412,161	-516,983
2022	16	10,888	-13,182	4,817	-5,874	7,803	-9,566	98,010	-120,584	75,339	-91,985	47,863	-58,488	13,126	-16,199	11,254	-13,888	143,215	-178,454	2,905	-3,568	1,396	-1,713	2,874	-1,537	1,154	-1,345	420,645	-516,384
2023	17	10,681	-13,191	4,718	-5,872	7,690	-9,562	96,859	-120,611	74,142	-92,200	46,940	-58,513	13,037	-16,311	11,202	-13,998	140,554	-179,054	2,881	-3,588	1,354	-1,715	2,806	-1,536	1,057	-1,349	413,922	-517,501
2024	18	10,601	-13,026	4,679	-5,783	7,632	-9,455	96,362	-119,440	73,675	-91,097	46,514	-57,708	13,025	-16,201	11,195	-13,940	139,488	-176,119	2,881	-3,572	1,343	-1,687	2,789	-1,509	1,047	-1,336	411,232	-510,873
2025	19	10,548	-12,992	4,658	-5,764	7,586	-9,422	95,986	-119,177	73,436	-90,951	46,368	-57,628	13,040	-16,237	11,207	-13,986	139,374	-176,069	2,884	-3,583	1,340	-1,686	2,782	-1,506	1,042	-1,349	410,250	-510,350
2026	20	10,558	-13,024	4,660	-5,774	7,585	-9,430	96,184	-119,512	73,639	-91,299	46,466	-57,782	13,109	-16,339	11,260	-14,075	139,464	-176,404	2,898	-3,606	1,343	-1,692	2,787	-1,509	1,043	-1,360	410,995	-511,806
2027	21	10,478	-13,032	4,618	-5,775	7,527	-9,413	95,603	-119,506	73,148	-91,456	46,087	-57,766	13,093	-16,421	11,263	-14,137	138,651	-176,680	2,896	-3,623	1,333	-1,695	2,773	-1,509	1,042	-1,364	408,512	-512,377
2028	22	10,452	-13,001	4,604	-5,761	7,495	-9,366	95,332	-119,119	73,059	-91,365	45,963	-57,582	13,128	-16,465	11,297	-14,164	138,599	-176,703	2,903	-3,628	1,332	-1,694	2,772	-1,506	1,051	-1,360	407,987	-511,717
2029	23	10,403	-12,980	4,575	-5,749	7,457	-9,329	94,981	-118,862	72,756	-91,311	45,707	-57,424	13,136	-16,515	11,321	-14,198	137,969	-176,608	2,907	-3,637	1,325	-1,693	2,765	-1,503	1,058	-1,358	406,360	-511,167
2030	24	10,441	-13,013	4,590	-5,764	7,471	-9,332	95,269	-119,111	73,110	-91,644	45,917	-57,592	13,226	-16,608	11,398	-14,270	138,573	-177,177	2,926	-3,657	1,332	-1,700	2,778	-1,507	1,069	-1,366	408,100	-512,742
2031	25	10,430	-13,037	4,582	-5,773	7,451	-9,327	95,207	-119,258	73,111	-91,906	45,836	-57,630	13,268	-16,700	11,429	-14,338	138,419	-177,591	2,936	-3,677	1,332	-1,707	2,778	-1,511	1,073	-1,381	407,853	-513,836
2032	26	10,460	-13,099	4,598	-5,799	7,452	-9,347	95,388	-119,708	73,448	-92,428	45,955	-57,834	13,362	-16,840	11,491	-14,450	139,119	-178,636	2,952	-3,708	1,340	-1,719	2,787	-1,519	1,076	-1,403	409,427	-516,490
2033	27	10,489	-13,114	4,611	-5,805	7,448	-9,337	95,535	-119,795	73,726	-92,630	46,033	-57,824	13,433	-16,924	11,532	-14,513	139,479	-178,884	2,968	-3,727	1,349	-1,725	2,800	-1,522	1,096	-1,417	410,498	-517,217
2034	28	10,458	-13,112	4,600	-5,802	7,400	-9,314	95,043	-119,718	73,562	-92,706	45,768	-57,758	13,481	-16,999	11,561	-14,571	140,062	-179,137	2,974	-3,743	1,350	-1,727	2,799	-1,522	1,100	-1,426	410,158	-517,535
2035	29	10,436	-13,088	4,588	-5,785	7,377	-9,284	94,962	-119,520	73,503	-92,607	45,596	-57,518	13,496	-17,038	11,566	-14,600	139,234	-178,441	2,980	-3,753	1,347	-1,723	2,791	-1,516	1,095	-1,423	408,972	-516,297
2036	30	10,476	-13,060	4,607	-5,772	7,379	-9,241	95,147	-119,174	73,876	-92,520	45,766	-57,381	13,603	-17,090	11,636	-14,627	140,294	-178,550	2,998	-3,759	1,358	-1,722	2,807	-1,512	1,111	-1,421	411,059	-515,829
2037	31	10,460	-13,087	4,598	-5,786	7,358	-9,232	95,012	-119,260	73,859	-92,825	45,626	-57,416	13,660	-17,194	11,683	-14,694	140,317	-179,218	3,008	-3,778	1,355	-1,729	2,803	-1,517	1,102	-1,428	410,841	-517,163
2038	32	10,378	-13,073	4,560	-5,779	7,299	-9,197	94,448	-119,013	73,357	-92,789	45,145	-57,207	13,647	-17,251	11,675	-14,726	139,362	-179,228	3,006	-3,789	1,341	-1,730	2,781	-1,515	1,080	-1,433	408,080	-516,731
2039	33	10,374	-13,077	4,558	-5,783	7,275	-9,169	94,282	-118,844	73,388	-92,904	45,051	-57,127	13,711	-17,333	11,717	-14,772	139,763	-179,826	3,017	-3,802	1,344	-1,736	2,786	-1,518	1,087	-1,442	408,353	-517,332
2040	34	10,412	-13,098	4,574	-5,791	7,283	-9,161	94,540	-118,938	73,743	-93,142	45,171	-57,135	13,811	-17,426	11,786	-14,837	140,356	-180,210	3,036	-3,821	1,351	-1,741	2,798	-1,521	1,095	-1,454	409,956	-518,272
2041	35	10,364	-13,056	4,556	-5,774	7,228	-9,105	93,966	-118,409	73,476	-92,928	44,875	-56,843	13,820	-17,451	11,777	-14,841	140,259	-180,112	3,035	-3,824	1,350	-1,741	2,791	-1,518	1,098	-1,461	408,595	-517,063
2042	36	10,257	-13,011	4,499	-5,739	7,169	-9,069	93,451	-118,061	72,853	-92,674	44,435	-56,633	13,758	-17,466	11,739	-14,859	138,229	-178,849	3,023	-3,823	1,327	-1,725	2,757	-1,502	1,062	-1,444	404,558	-514,855
2043	37	10,251	-12,982	4,497	-5,725	7,145	-9,027	93,267	-117,699	72,871	-92,559	44,317	-56,649	13,813	-17,504	11,771	-14,879	138,444	-178,716	3,031	-3,83								

Table 4-44

Population Projected for the OCS Program as a Percent of Total Population by Economic Impact Area

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4		Total EIA	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2007	1	1.2	1.5	0.9	1.1	1.8	2.3	13.3	16.6	5.3	6.7	3.7	4.7	0.5	0.7	1.2	1.5	2.0	2.7	0.2	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.4	1.8
2008	2	1.2	1.6	0.9	1.2	1.9	2.4	13.7	17.7	5.5	7.2	3.7	4.9	0.6	0.7	1.3	1.6	2.0	2.8	0.2	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.4	1.9
2009	3	1.3	1.7	0.9	1.2	2.0	2.5	14.2	18.5	5.6	7.5	3.8	5.0	0.6	0.8	1.3	1.7	2.1	2.9	0.2	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.5	2.0
2010	4	1.3	1.7	0.9	1.2	2.1	2.6	14.7	18.9	5.9	7.6	3.9	5.0	0.6	0.8	1.4	1.8	2.2	3.0	0.2	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.5	2.0
2011	5	1.3	1.7	0.9	1.2	2.0	2.6	14.6	19.0	5.7	7.6	3.7	4.9	0.6	0.8	1.4	1.8	2.1	3.0	0.2	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.5	2.0
2012	6	1.4	1.7	0.9	1.2	2.1	2.7	15.2	19.5	6.0	7.7	3.9	4.9	0.6	0.8	1.5	1.9	2.2	3.0	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.6	2.0
2013	7	1.3	1.7	0.9	1.2	2.1	2.7	15.2	19.8	5.9	7.8	3.7	4.9	0.6	0.8	1.5	2.0	2.2	3.0	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.5	2.0
2014	8	1.4	1.8	0.9	1.2	2.2	2.8	15.8	20.0	6.2	7.9	3.8	4.8	0.6	0.8	1.6	2.0	2.2	3.0	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.6	2.0
2015	9	1.4	1.7	0.9	1.2	2.2	2.8	15.7	20.1	6.1	7.9	3.7	4.8	0.6	0.8	1.6	2.0	2.2	3.0	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.5	2.0
2016	10	1.4	1.8	0.9	1.2	2.3	2.8	16.2	20.4	6.3	7.9	3.8	4.8	0.6	0.8	1.6	2.1	2.3	2.9	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.6	2.0
2017	11	1.4	1.7	0.9	1.2	2.2	2.8	15.9	20.3	6.1	7.8	3.6	4.7	0.6	0.8	1.6	2.1	2.2	2.9	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.0	1.5	2.0
2018	12	1.4	1.7	0.9	1.1	2.2	2.8	16.1	20.0	6.2	7.7	3.7	4.5	0.6	0.8	1.6	2.1	2.2	2.8	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.6	1.9
2019	13	1.3	1.7	0.9	1.1	2.2	2.7	15.6	19.7	6.0	7.6	3.5	4.4	0.6	0.8	1.6	2.0	2.1	2.7	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.5	1.9
2020	14	1.4	1.6	0.9	1.1	2.2	2.7	15.7	19.4	6.1	7.5	3.5	4.3	0.6	0.8	1.6	2.0	2.1	2.7	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.5	1.8
2021	15	1.3	1.6	0.8	1.0	2.1	2.7	15.4	19.2	5.9	7.4	3.3	4.2	0.6	0.7	1.6	2.0	2.1	2.6	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.4	1.8
2022	16	1.3	1.6	0.8	1.0	2.2	2.7	15.5	19.1	6.0	7.3	3.3	4.1	0.6	0.7	1.6	2.0	2.1	2.6	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.5	1.8
2023	17	1.3	1.6	0.8	1.0	2.1	2.6	15.2	19.0	5.9	7.3	3.2	4.0	0.6	0.7	1.6	2.0	2.0	2.6	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.4	1.8
2024	18	1.3	1.6	0.8	1.0	2.1	2.6	15.1	18.7	5.8	7.2	3.1	3.9	0.6	0.7	1.6	1.9	2.0	2.5	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.4	1.7
2025	19	1.3	1.6	0.8	1.0	2.1	2.6	14.9	18.5	5.7	7.1	3.1	3.8	0.6	0.7	1.5	1.9	2.0	2.5	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.4	1.7
2026	20	1.3	1.5	0.8	1.0	2.1	2.6	14.9	18.5	5.7	7.1	3.0	3.8	0.6	0.7	1.5	1.9	1.9	2.4	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.4	1.7
2027	21	1.2	1.5	0.8	1.0	2.0	2.6	14.7	18.3	5.6	7.1	3.0	3.7	0.6	0.7	1.5	1.9	1.9	2.4	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.3	1.7
2028	22	1.2	1.5	0.8	0.9	2.0	2.5	14.5	18.2	5.6	7.0	2.9	3.6	0.5	0.7	1.5	1.9	1.9	2.4	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.3	1.6
2029	23	1.2	1.5	0.7	0.9	2.0	2.5	14.4	18.0	5.5	7.0	2.8	3.6	0.5	0.7	1.5	1.9	1.8	2.4	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.3	1.6
2030	24	1.2	1.5	0.7	0.9	2.0	2.5	14.3	17.9	5.5	6.9	2.8	3.5	0.5	0.7	1.5	1.9	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.3	1.6
2031	25	1.2	1.5	0.7	0.9	2.0	2.5	14.2	17.8	5.5	6.9	2.8	3.5	0.5	0.7	1.5	1.9	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.3	1.6
2032	26	1.2	1.5	0.7	0.9	2.0	2.5	14.2	17.8	5.5	6.9	2.7	3.4	0.5	0.7	1.5	1.9	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.2	1.6
2033	27	1.2	1.5	0.7	0.9	2.0	2.5	14.1	17.7	5.5	6.9	2.7	3.4	0.5	0.7	1.5	1.8	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.2	1.6
2034	28	1.2	1.5	0.7	0.9	1.9	2.4	14.0	17.6	5.4	6.8	2.6	3.3	0.5	0.6	1.5	1.8	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.2	1.5
2035	29	1.2	1.5	0.7	0.9	1.9	2.4	13.9	17.4	5.4	6.8	2.6	3.2	0.5	0.6	1.4	1.8	1.7	2.2	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.2	1.5
2036	30	1.2	1.4	0.7	0.9	1.9	2.4	13.8	17.3	5.4	6.7	2.5	3.2	0.5	0.6	1.4	1.8	1.7	2.2	0.2	0.3	0.2	0.2	0.1	0.0	0.0	0.0	1.2	1.5
2037	31	1.1	1.4	0.7	0.9	1.9	2.4	13.7	17.2	5.3	6.7	2.5	3.1	0.5	0.6	1.4	1.8	1.7	2.2	0.2	0.3	0.1	0.2	0.1	0.0	0.0	0.0	1.2	1.5
2038	32	1.1	1.4	0.7	0.9	1.9	2.4	13.5	17.0	5.3	6.7	2.4	3.1	0.5	0.6	1.4	1.8	1.7	2.1	0.2	0.3	0.1	0.2	0.1	0.0	0.0	0.0	1.2	1.5
2039	33	1.1	1.4	0.7	0.8	1.9	2.3	13.4	16.9	5.2	6.6	2.4	3.0	0.5	0.6	1.4	1.8	1.7	2.1	0.2	0.3	0.1	0.2	0.1	0.0	0.0	0.0	1.1	1.4
2040	34	1.1	1.4	0.7	0.8	1.9	2.3	13.4	16.8	5.2	6.6	2.3	3.0	0.5	0.6	1.4	1.8	1.6	2.1	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	1.1	1.4
2041	35	1.1	1.4	0.6	0.8	1.8	2.3	13.2	16.6	5.2	6.5	2.3	2.9	0.5	0.6	1.4	1.7	1.6	2.1	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	1.1	1.4
2042	36	1.1	1.4	0.6	0.8	1.8	2.3	13.0	16.5	5.1	6.5	2.2	2.8	0.5	0.6	1.4	1.7	1.6	2.0	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	1.1	1.4
2043	37	1.1	1.4	0.6	0.8	1.8	2.3	12.9	16.3	5.1	6.4	2.2	2.8	0.5	0.6	1.3	1.7	1.6	2.0	0.2	0.2	0.1	0.2	0.1	0.0	0.0	0.0	1.1	1.4
2044	38	1.1	1.4	0.6	0.8	1.8	2.2	12.9	16.2	5.0	6.4	2.1	2.7	0.5	0.6	1.3	1.7	1.5	2.0	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.0	1.1	1.3
2045	39	1.1	1.3	0.6	0.8	1.8	2.2	12.7	16.0	5.0	6.3	2.1	2.7	0.4	0.6	1.3	1.7	1.5	2.0	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.0	1.0	1.3
2046	40	1.0	1.3	0.6	0.8	1.7	2.2	12.6	15.9	5.0	6.3	2.1	2.6	0.4	0.6	1.3	1.7	1.5	1.9	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.0	1.0	1.3

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods & Poole Economics, Inc. (2006).



Table 4-45a

Low-Case Employment Projected for the OCS Program by Economic Impact Area (Years 1-20)

EIA	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
AL-1	Direct	2,780	2,879	2,989	3,134	3,093	3,267	3,242	3,406	3,370	3,516	3,460	3,537	3,430	3,511	3,430	3,505	3,453	3,438	3,428	3,438
	Indirect	592	611	632	666	648	691	676	716	701	736	717	740	733	708	730	713	708	706	706	709
	Induced	1,322	1,377	1,438	1,520	1,505	1,603	1,596	1,689	1,678	1,762	1,736	1,781	1,731	1,779	1,740	1,785	1,759	1,754	1,752	1,759
	Total	<b>4,694</b>	<b>4,867</b>	<b>5,058</b>	<b>5,319</b>	<b>5,246</b>	<b>5,560</b>	<b>5,514</b>	<b>5,811</b>	<b>5,750</b>	<b>6,014</b>	<b>5,913</b>	<b>6,058</b>	<b>5,871</b>	<b>6,023</b>	<b>5,878</b>	<b>6,020</b>	<b>5,925</b>	<b>5,900</b>	<b>5,886</b>	<b>5,905</b>
FL-1	Direct	654	691	731	776	786	838	853	903	915	962	960	981	967	989	980	1,000	997	999	1,000	1,006
	Indirect	139	146	152	162	160	172	171	182	181	191	188	194	188	194	189	195	191	191	191	192
	Induced	317	335	354	378	381	409	414	441	445	470	467	479	471	484	478	489	486	487	488	490
	Total	<b>1,111</b>	<b>1,171</b>	<b>1,237</b>	<b>1,317</b>	<b>1,327</b>	<b>1,419</b>	<b>1,437</b>	<b>1,526</b>	<b>1,541</b>	<b>1,624</b>	<b>1,615</b>	<b>1,654</b>	<b>1,625</b>	<b>1,666</b>	<b>1,647</b>	<b>1,685</b>	<b>1,673</b>	<b>1,676</b>	<b>1,679</b>	<b>1,689</b>
FL-2	Direct	373	383	395	416	402	429	416	441	429	450	436	451	430	444	426	440	427	424	423	423
	Indirect	89	93	97	103	101	108	106	114	112	119	116	120	115	119	116	119	117	116	117	117
	Induced	154	160	166	178	173	186	182	195	191	203	196	205	196	204	196	203	198	197	197	198
	Total	<b>616</b>	<b>636</b>	<b>658</b>	<b>697</b>	<b>675</b>	<b>723</b>	<b>704</b>	<b>750</b>	<b>732</b>	<b>772</b>	<b>748</b>	<b>775</b>	<b>741</b>	<b>767</b>	<b>738</b>	<b>763</b>	<b>741</b>	<b>737</b>	<b>736</b>	<b>738</b>
FL-3	Direct	632	659	690	733	724	776	770	819	813	856	841	866	840	866	845	869	853	851	850	854
	Indirect	217	226	237	252	247	267	262	281	277	293	286	296	285	296	287	297	289	288	288	289
	Induced	416	435	455	487	479	518	511	548	543	575	562	582	563	583	567	586	573	572	572	575
	Total	<b>1,264</b>	<b>1,320</b>	<b>1,382</b>	<b>1,472</b>	<b>1,451</b>	<b>1,560</b>	<b>1,543</b>	<b>1,648</b>	<b>1,633</b>	<b>1,725</b>	<b>1,689</b>	<b>1,745</b>	<b>1,688</b>	<b>1,745</b>	<b>1,698</b>	<b>1,751</b>	<b>1,715</b>	<b>1,711</b>	<b>1,711</b>	<b>1,718</b>
FL-4	Direct	202	209	217	244	219	255	228	262	240	267	241	268	241	267	241	267	240	237	235	235
	Indirect	105	109	113	126	116	132	122	138	130	142	132	143	132	143	133	144	133	132	132	132
	Induced	171	178	185	206	191	217	201	227	214	234	218	237	219	237	220	238	221	219	219	219
	Total	<b>477</b>	<b>496</b>	<b>515</b>	<b>576</b>	<b>527</b>	<b>605</b>	<b>551</b>	<b>627</b>	<b>583</b>	<b>644</b>	<b>592</b>	<b>648</b>	<b>592</b>	<b>648</b>	<b>594</b>	<b>648</b>	<b>594</b>	<b>589</b>	<b>586</b>	<b>586</b>
LA-1	Direct	2,120	2,208	2,304	2,420	2,418	2,555	2,568	2,698	2,697	2,817	2,796	2,851	2,788	2,848	2,807	2,861	2,839	2,835	2,831	2,844
	Indirect	366	380	396	420	416	446	444	472	469	495	487	502	487	502	491	505	498	497	497	500
	Induced	863	907	954	1,014	1,019	1,090	1,100	1,169	1,176	1,240	1,231	1,263	1,239	1,272	1,255	1,285	1,277	1,277	1,279	1,287
	Total	<b>3,349</b>	<b>3,495</b>	<b>3,654</b>	<b>3,853</b>	<b>3,853</b>	<b>4,090</b>	<b>4,112</b>	<b>4,339</b>	<b>4,343</b>	<b>4,552</b>	<b>4,514</b>	<b>4,616</b>	<b>4,616</b>	<b>4,622</b>	<b>4,553</b>	<b>4,651</b>	<b>4,614</b>	<b>4,609</b>	<b>4,607</b>	<b>4,632</b>
LA-2	Direct	22,577	23,519	24,558	25,801	25,767	27,231	27,378	28,772	28,782	30,081	29,866	30,466	29,806	30,441	30,004	30,587	30,363	30,341	30,321	30,488
	Indirect	6,068	6,317	6,588	6,956	6,908	7,353	7,349	7,782	7,761	8,163	8,064	8,281	8,065	8,278	8,117	8,317	8,229	8,221	8,233	8,287
	Induced	12,810	13,455	14,157	14,980	15,098	16,055	16,284	17,213	17,379	18,261	18,206	18,605	18,300	18,714	18,527	18,907	18,837	18,868	18,901	19,031
	Total	<b>41,456</b>	<b>43,290</b>	<b>45,304</b>	<b>47,736</b>	<b>47,772</b>	<b>50,639</b>	<b>51,011</b>	<b>53,767</b>	<b>53,923</b>	<b>56,506</b>	<b>56,135</b>	<b>57,352</b>	<b>56,172</b>	<b>57,433</b>	<b>56,649</b>	<b>57,812</b>	<b>57,430</b>	<b>57,431</b>	<b>57,454</b>	<b>57,805</b>
LA-3	Direct	20,312	20,956	21,676	22,637	22,284	23,452	23,218	24,309	23,986	24,954	24,538	25,058	24,261	24,798	24,193	24,693	24,328	24,198	24,125	24,193
	Indirect	5,588	5,820	6,066	6,439	6,344	6,800	6,733	7,175	7,107	7,507	7,361	7,609	7,364	7,605	7,409	7,638	7,520	7,494	7,501	7,544
	Induced	10,163	10,598	11,069	11,697	11,617	12,369	12,351	13,074	13,030	13,690	13,511	13,870	13,506	13,870	13,595	13,934	13,780	13,749	13,753	13,825
	Total	<b>36,063</b>	<b>37,373</b>	<b>38,810</b>	<b>40,774</b>	<b>40,245</b>	<b>42,621</b>	<b>42,303</b>	<b>44,559</b>	<b>44,124</b>	<b>46,150</b>	<b>45,410</b>	<b>46,537</b>	<b>45,130</b>	<b>46,273</b>	<b>45,197</b>	<b>46,265</b>	<b>45,629</b>	<b>45,441</b>	<b>45,379</b>	<b>45,863</b>
LA-4	Direct	11,335	11,702	12,112	12,660	12,473	13,153	13,035	13,671	13,501	14,070	13,853	14,169	13,733	14,058	13,743	14,040	13,854	13,789	13,757	13,824
	Indirect	4,475	4,698	4,933	5,292	5,241	5,682	5,654	6,088	6,070	6,468	6,354	6,605	6,412	6,653	6,500	6,727	6,640	6,631	6,656	6,713
	Induced	6,909	7,199	7,511	7,987	7,871	8,461	8,380	8,952	8,876	9,394	9,213	9,540	9,235	9,553	9,313	9,610	9,467	9,438	9,457	9,526
	Total	<b>22,719</b>	<b>23,599</b>	<b>24,557</b>	<b>25,940</b>	<b>25,585</b>	<b>27,296</b>	<b>27,068</b>	<b>28,712</b>	<b>28,447</b>	<b>29,931</b>	<b>29,420</b>	<b>30,314</b>	<b>29,380</b>	<b>30,264</b>	<b>29,556</b>	<b>30,377</b>	<b>29,961</b>	<b>29,858</b>	<b>29,870</b>	<b>30,063</b>
MS-1	Direct	1,414	1,461	1,513	1,585	1,558	1,646	1,626	1,708	1,684	1,757	1,723	1,763	1,704	1,746	1,699	1,738	1,708	1,698	1,694	1,698
	Indirect	231	238	245	256	250	264	258	272	266	277	270	277	266	273	264	271	265	263	262	263
	Induced	528	547	569	599	590	627	621	655	648	679	667	684	662	680	663	679	666	665	664	666
	Total	<b>2,172</b>	<b>2,245</b>	<b>2,326</b>	<b>2,440</b>	<b>2,398</b>	<b>2,536</b>	<b>2,505</b>	<b>2,635</b>	<b>2,598</b>	<b>2,713</b>	<b>2,660</b>	<b>2,725</b>	<b>2,633</b>	<b>2,699</b>	<b>2,626</b>	<b>2,688</b>	<b>2,641</b>	<b>2,626</b>	<b>2,620</b>	<b>2,626</b>
TX-1	Direct	2,371	2,481	2,603	2,745	2,751	2,915	2,936	3,089	3,101	3,242	3,217	3,282	3,215	3,284	3,236	3,298	3,274	3,268	3,269	3,281
	Indirect	528	554	582	619	616	660	659	701	700	738	727	749	729	751	734	754	745	743	744	748
	Induced	1,109	1,171	1,238	1,316	1,330	1,419	1,440	1,525	1,543	1,622	1,616	1,652	1,626	1,664	1,647	1,681	1,675	1,676	1,679	1,688
	Total	<b>4,009</b>	<b>4,206</b>	<b>4,423</b>	<b>4,679</b>	<b>4,697</b>	<b>4,993</b>	<b>5,035</b>	<b>5,315</b>	<b>5,344</b>	<b>5,602</b>	<b>5,560</b>	<b>5,683</b>	<b>5,570</b>	<b>5,699</b>	<b>5,618</b>	<b>5,734</b>	<b>5,694</b>	<b>5,687</b>	<b>5,692</b>	<b>5,717</b>
TX-2	Direct	2,424	2,570	2,727	2,902	2,951	3,146	3,213	3,399	3,454	3,629	3,629	3,704	3,660	3,743	3,718	3,791	3,785	3,791	3,799	3,819
	Indirect	433	462	492	535	537	587	591	641	646	692	683	711	695	722	709	734	727	728	732	738
	Induced	814	872	933	1,003	1,026	1,105	1,135	1,212	1,239	1,312	1,314	1,347	1,335	1,370	1,364	1,396	1,396	1,401	1,407	1,417
	Total	<b>3,671</b>	<b>3,904</b>	<b>4,153</b>	<b>4,440</b>	<b>4,515</b>	<b>4,839</b>	<b>4,939</b>	<b>5,252</b>	<b>5,339</b>	<b>5,633</b>	<b>5,625</b>	<b>5,762</b>	<b>5,690</b>	<b>5,835</b>	<b>5,791</b>	<b>5,921</b>	<b>5,908</b>	<b>5,920</b>	<b>5,937</b>	<b>5,974</b>
TX-3	Direct	30,066	31,284	32,639	34,388	34,020	36,038	35,713	37,533	37,177	38,720	38,006	38,898	37,717	38,692	37,730	38,576	37,946	37,693	37,667	37,679
	Indirect</																				

Table 4-45b

Low-Case Employment Projected for the OCS Program by Economic Impact Area (Years 21-40)

EIA	Type	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total	
AL-1	Direct	3,417	3,414	3,404	3,421	3,424	3,441	3,457	3,453	3,453	3,472	3,474	3,456	3,460	3,480	3,470	3,443	3,448	3,462	3,460	3,458	135,274	
	Indirect	703	703	700	705	705	709	713	713	712	717	716	710	711	715	714	705	706	709	709	709	709	28,025
	Induced	1,752	1,754	1,753	1,764	1,767	1,777	1,787	1,787	1,788	1,800	1,803	1,795	1,799	1,811	1,808	1,795	1,799	1,808	1,809	1,809	1,809	68,830
	<b>Total</b>	<b>5,873</b>	<b>5,872</b>	<b>5,858</b>	<b>5,890</b>	<b>5,897</b>	<b>5,927</b>	<b>5,957</b>	<b>5,952</b>	<b>5,953</b>	<b>5,989</b>	<b>5,993</b>	<b>5,960</b>	<b>5,971</b>	<b>6,006</b>	<b>5,992</b>	<b>5,943</b>	<b>5,953</b>	<b>5,979</b>	<b>5,977</b>	<b>5,976</b>	<b>5,976</b>	<b>232,128</b>
FL-1	Direct	1,006	1,009	1,012	1,019	1,023	1,029	1,035	1,037	1,040	1,047	1,051	1,052	1,056	1,064	1,064	1,061	1,065	1,071	1,073	1,075	38,875	
	Indirect	192	192	192	193	194	195	196	197	199	199	199	199	200	200	200	199	199	200	201	201	7,511	
	Induced	491	492	494	497	500	503	506	507	509	513	515	514	517	521	521	519	521	524	525	526	18,975	
	<b>Total</b>	<b>1,689</b>	<b>1,694</b>	<b>1,697</b>	<b>1,709</b>	<b>1,716</b>	<b>1,727</b>	<b>1,737</b>	<b>1,741</b>	<b>1,746</b>	<b>1,758</b>	<b>1,765</b>	<b>1,765</b>	<b>1,772</b>	<b>1,785</b>	<b>1,785</b>	<b>1,779</b>	<b>1,785</b>	<b>1,795</b>	<b>1,798</b>	<b>1,802</b>	<b>65,361</b>	
FL-2	Direct	420	419	417	419	418	421	424	424	423	427	426	421	422	424	424	416	417	418	418	418	16,874	
	Indirect	117	117	117	117	118	119	120	120	121	121	121	121	121	121	121	120	120	121	121	121	4,604	
	Induced	197	197	197	198	198	200	202	202	202	204	204	202	203	204	204	201	202	203	203	203	7,801	
	<b>Total</b>	<b>733</b>	<b>733</b>	<b>730</b>	<b>734</b>	<b>735</b>	<b>739</b>	<b>745</b>	<b>746</b>	<b>745</b>	<b>751</b>	<b>750</b>	<b>743</b>	<b>745</b>	<b>750</b>	<b>750</b>	<b>737</b>	<b>739</b>	<b>742</b>	<b>742</b>	<b>742</b>	<b>29,279</b>	
FL-3	Direct	851	852	850	857	859	863	869	870	869	876	877	873	876	881	881	873	875	879	880	880	33,398	
	Indirect	288	289	289	290	291	293	295	295	295	298	297	295	297	298	299	295	296	297	297	298	11,354	
	Induced	573	575	575	579	581	584	588	590	589	594	595	592	594	598	598	592	594	597	598	599	22,486	
	<b>Total</b>	<b>1,713</b>	<b>1,716</b>	<b>1,716</b>	<b>1,726</b>	<b>1,730</b>	<b>1,740</b>	<b>1,751</b>	<b>1,755</b>	<b>1,754</b>	<b>1,768</b>	<b>1,769</b>	<b>1,760</b>	<b>1,766</b>	<b>1,778</b>	<b>1,778</b>	<b>1,760</b>	<b>1,764</b>	<b>1,773</b>	<b>1,775</b>	<b>1,777</b>	<b>67,237</b>	
FL-4	Direct	235	237	238	241	241	242	247	247	245	249	246	240	241	243	244	233	234	236	236	237	9,629	
	Indirect	132	133	134	135	135	136	138	138	138	140	139	136	137	138	138	134	135	136	136	136	5,315	
	Induced	219	221	222	224	225	226	229	230	229	232	231	227	228	230	230	224	225	226	227	228	8,802	
	<b>Total</b>	<b>585</b>	<b>590</b>	<b>594</b>	<b>600</b>	<b>602</b>	<b>603</b>	<b>614</b>	<b>616</b>	<b>619</b>	<b>621</b>	<b>616</b>	<b>607</b>	<b>607</b>	<b>611</b>	<b>612</b>	<b>592</b>	<b>594</b>	<b>597</b>	<b>599</b>	<b>601</b>	<b>23,745</b>	
LA-1	Direct	2,836	2,838	2,838	2,855	2,862	2,876	2,889	2,884	2,891	2,906	2,913	2,906	2,911	2,929	2,921	2,914	2,919	2,935	2,935	2,935	110,995	
	Indirect	499	500	500	504	505	508	511	511	512	516	517	515	516	520	519	516	518	521	521	522	19,523	
	Induced	1,287	1,291	1,293	1,303	1,308	1,317	1,324	1,325	1,329	1,338	1,343	1,341	1,346	1,355	1,354	1,351	1,355	1,364	1,366	1,367	49,856	
	<b>Total</b>	<b>4,622</b>	<b>4,629</b>	<b>4,631</b>	<b>4,661</b>	<b>4,675</b>	<b>4,701</b>	<b>4,725</b>	<b>4,721</b>	<b>4,733</b>	<b>4,760</b>	<b>4,773</b>	<b>4,761</b>	<b>4,772</b>	<b>4,804</b>	<b>4,794</b>	<b>4,782</b>	<b>4,792</b>	<b>4,819</b>	<b>4,822</b>	<b>4,824</b>	<b>180,374</b>	
LA-2	Direct	30,406	30,417	30,414	30,594	30,684	30,849	31,005	30,943	31,033	31,201	31,269	31,196	31,247	31,452	31,361	31,312	31,361	31,539	31,540	31,534	1,188,508	
	Indirect	8,260	8,274	8,264	8,321	8,348	8,406	8,463	8,458	8,482	8,543	8,559	8,528	8,549	8,608	8,599	8,564	8,583	8,633	8,640	8,645	323,063	
	Induced	19,021	19,066	19,098	19,232	19,312	19,436	19,551	19,550	19,624	19,750	19,822	19,811	19,873	20,014	19,991	19,987	20,042	20,162	20,189	20,209	736,328	
	<b>Total</b>	<b>57,688</b>	<b>57,757</b>	<b>57,777</b>	<b>58,147</b>	<b>58,344</b>	<b>58,691</b>	<b>59,019</b>	<b>58,952</b>	<b>59,139</b>	<b>59,494</b>	<b>59,649</b>	<b>59,534</b>	<b>59,669</b>	<b>60,074</b>	<b>59,950</b>	<b>59,863</b>	<b>59,986</b>	<b>60,334</b>	<b>60,369</b>	<b>60,388</b>	<b>2,247,899</b>	
LA-3	Direct	24,022	23,979	23,874	23,987	23,996	24,117	24,221	24,170	24,169	24,300	24,301	24,150	24,166	24,300	24,215	24,200	24,038	24,139	24,111	24,081	954,528	
	Indirect	7,515	7,537	7,525	7,585	7,603	7,659	7,709	7,714	7,719	7,782	7,797	7,750	7,774	7,828	7,823	7,761	7,780	7,825	7,833	7,841	294,981	
	Induced	13,780	13,804	13,791	13,887	13,920	14,011	14,088	14,091	14,109	14,208	14,240	14,183	14,221	14,316	14,297	14,220	14,253	14,329	14,340	14,341	539,489	
	<b>Total</b>	<b>45,317</b>	<b>45,320</b>	<b>45,190</b>	<b>45,459</b>	<b>45,519</b>	<b>45,787</b>	<b>46,019</b>	<b>45,975</b>	<b>46,290</b>	<b>46,338</b>	<b>46,083</b>	<b>46,161</b>	<b>46,444</b>	<b>46,335</b>	<b>46,001</b>	<b>46,071</b>	<b>46,293</b>	<b>46,283</b>	<b>46,270</b>	<b>46,270</b>	<b>1,788,998</b>	
LA-4	Direct	13,745	13,727	13,691	13,766	13,787	13,861	13,925	13,872	13,875	13,961	13,963	13,871	13,877	13,963	13,899	13,829	13,835	13,916	13,897	13,877	543,671	
	Indirect	6,705	6,741	6,747	6,814	6,841	6,901	6,953	6,963	6,973	7,042	7,063	7,026	7,057	7,113	7,116	7,076	7,099	7,151	7,166	7,180	260,221	
	Induced	9,495	9,525	9,516	9,596	9,624	9,700	9,765	9,763	9,767	9,857	9,872	9,807	9,838	9,910	9,900	9,838	9,860	9,926	9,935	9,943	371,328	
	<b>Total</b>	<b>29,945</b>	<b>29,993</b>	<b>29,954</b>	<b>30,176</b>	<b>30,252</b>	<b>30,461</b>	<b>30,644</b>	<b>30,598</b>	<b>30,614</b>	<b>30,860</b>	<b>30,898</b>	<b>30,704</b>	<b>30,771</b>	<b>30,986</b>	<b>30,916</b>	<b>30,744</b>	<b>30,980</b>	<b>30,993</b>	<b>30,998</b>	<b>31,000</b>	<b>1,175,219</b>	
MS-1	Direct	1,685	1,683	1,675	1,683	1,683	1,692	1,700	1,699	1,697	1,707	1,707	1,696	1,699	1,708	1,704	1,686	1,688	1,694	1,693	1,692	66,993	
	Indirect	260	260	258	259	259	260	262	261	262	263	262	260	260	261	261	257	258	258	258	258	10,430	
	Induced	662	662	660	664	665	668	672	672	671	676	677	673	675	679	677	671	672	675	675	675	26,184	
	<b>Total</b>	<b>2,608</b>	<b>2,605</b>	<b>2,594</b>	<b>2,606</b>	<b>2,607</b>	<b>2,620</b>	<b>2,633</b>	<b>2,632</b>	<b>2,630</b>	<b>2,646</b>	<b>2,646</b>	<b>2,629</b>	<b>2,633</b>	<b>2,648</b>	<b>2,642</b>	<b>2,615</b>	<b>2,618</b>	<b>2,628</b>	<b>2,626</b>	<b>2,625</b>	<b>103,606</b>	
TX-1	Direct	3,272	3,274	3,271	3,290	3,295	3,314	3,327	3,334	3,334	3,356	3,366	3,359	3,370	3,390	3,388	3,369	3,378	3,392	3,395	3,398	127,729	
	Indirect	746	748	747	752	753	759	763	765	765	771	773	770	773	778	778	772	774	778	779	780	29,101	
	Induced	1,688	1,693	1,695	1,712	1,723	1,732	1,737	1,739	1,752	1,759	1,758	1,766	1,778	1,778	1,772	1,778	1,778	1,787	1,790	1,794	65,257	
	<b>Total</b>	<b>5,705</b>	<b>5,715</b>	<b>5,713</b>	<b>5,748</b>	<b>5,761</b>	<b>5,796</b>	<b>5,822</b>	<b>5,837</b>	<b>5,838</b>	<b>5,879</b>	<b>5,896</b>	<b>5,887</b>	<b>5,909</b>	<b>5,946</b>	<b>5,944</b>	<b>5,912</b>	<b>5,930</b>	<b>5,956</b>	<b>5,964</b>	<b>5,972</b>	<b>222,087</b>	
TX-2	Direct	3,823	3,836	3,848	3,875	3,889	3,913	3,931	3,944	3,951	3,978	3,998	4,002	4,021	4,049	4,049	4,043	4,058	4,079	4,088	4,097	147,326	
	Indirect	739	745	747	755	759	766	771	775	776	784	788	786	791	798	800	795	799	805	808	811	28,394	
	Induced	1,422	1,430	1,437	1,449	1,457	1,																

Table 4-46a

High-Case Employment Projected for the OCS Program by Economic Impact Area (Years 1-20)

EIA	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
AL-1	Direct	3,451	3,709	3,916	3,999	4,052	4,154	4,224	4,287	4,314	4,370	4,373	4,336	4,296	4,264	4,242	4,243	4,258	4,216	4,214	4,232
	Indirect	755	811	853	866	872	890	900	910	912	920	918	908	898	889	883	883	886	875	875	879
	Induced	1,638	1,771	1,879	1,929	1,966	2,028	2,074	2,118	2,146	2,187	2,197	2,186	2,173	2,163	2,157	2,162	2,173	2,158	2,161	2,174
	<b>Total</b>	<b>5,844</b>	<b>6,291</b>	<b>6,648</b>	<b>6,794</b>	<b>6,890</b>	<b>7,072</b>	<b>7,199</b>	<b>7,314</b>	<b>7,372</b>	<b>7,477</b>	<b>7,487</b>	<b>7,430</b>	<b>7,367</b>	<b>7,315</b>	<b>7,282</b>	<b>7,288</b>	<b>7,317</b>	<b>7,249</b>	<b>7,250</b>	<b>7,284</b>
FL-1	Direct	801	876	941	981	1,014	1,060	1,099	1,136	1,166	1,202	1,216	1,218	1,218	1,219	1,221	1,227	1,236	1,234	1,239	1,248
	Indirect	182	198	210	216	220	226	231	236	239	244	244	243	241	240	239	240	241	239	240	241
	Induced	397	435	467	486	501	523	542	559	574	591	598	599	598	598	599	602	606	605	608	612
	<b>Total</b>	<b>1,380</b>	<b>1,509</b>	<b>1,618</b>	<b>1,682</b>	<b>1,735</b>	<b>1,809</b>	<b>1,871</b>	<b>1,931</b>	<b>1,978</b>	<b>2,037</b>	<b>2,058</b>	<b>2,060</b>	<b>2,058</b>	<b>2,057</b>	<b>2,059</b>	<b>2,069</b>	<b>2,084</b>	<b>2,078</b>	<b>2,086</b>	<b>2,101</b>
FL-2	Direct	497	534	559	564	565	573	575	577	575	576	571	562	553	545	540	539	540	531	530	532
	Indirect	119	129	136	139	140	144	146	148	150	152	152	150	149	147	147	148	147	148	147	148
	Induced	209	226	239	242	244	250	253	256	257	260	259	257	254	251	250	250	252	248	249	250
	<b>Total</b>	<b>825</b>	<b>888</b>	<b>934</b>	<b>945</b>	<b>950</b>	<b>966</b>	<b>974</b>	<b>982</b>	<b>982</b>	<b>988</b>	<b>982</b>	<b>969</b>	<b>956</b>	<b>944</b>	<b>936</b>	<b>930</b>	<b>939</b>	<b>926</b>	<b>926</b>	<b>930</b>
FL-3	Direct	809	877	931	956	975	1,005	1,028	1,048	1,062	1,082	1,085	1,079	1,071	1,065	1,061	1,064	1,068	1,059	1,062	1,067
	Indirect	285	309	327	335	340	350	357	363	367	373	373	370	367	365	363	364	365	362	362	364
	Induced	543	590	627	643	656	676	692	706	716	730	732	729	724	720	717	719	723	717	719	724
	<b>Total</b>	<b>1,637</b>	<b>1,776</b>	<b>1,886</b>	<b>1,934</b>	<b>1,970</b>	<b>2,031</b>	<b>2,076</b>	<b>2,117</b>	<b>2,144</b>	<b>2,184</b>	<b>2,190</b>	<b>2,178</b>	<b>2,163</b>	<b>2,149</b>	<b>2,141</b>	<b>2,147</b>	<b>2,156</b>	<b>2,138</b>	<b>2,144</b>	<b>2,155</b>
FL-4	Direct	289	316	329	328	327	330	330	331	330	332	329	324	319	311	306	307	307	304	307	309
	Indirect	144	158	165	167	168	171	172	174	175	177	177	175	173	170	168	169	169	168	170	171
	Induced	238	260	273	275	277	282	285	288	290	293	293	290	287	282	279	280	281	279	282	284
	<b>Total</b>	<b>672</b>	<b>733</b>	<b>767</b>	<b>770</b>	<b>771</b>	<b>782</b>	<b>787</b>	<b>792</b>	<b>795</b>	<b>802</b>	<b>798</b>	<b>789</b>	<b>788</b>	<b>784</b>	<b>753</b>	<b>756</b>	<b>758</b>	<b>751</b>	<b>759</b>	<b>764</b>
LA-1	Direct	2,587	2,790	2,959	3,047	3,112	3,219	3,302	3,381	3,432	3,507	3,532	3,523	3,506	3,493	3,486	3,496	3,514	3,496	3,501	3,522
	Indirect	467	505	534	549	560	578	593	607	616	630	633	631	629	626	625	627	631	627	628	632
	Induced	1,063	1,157	1,237	1,283	1,322	1,378	1,425	1,470	1,506	1,551	1,568	1,570	1,569	1,570	1,569	1,579	1,592	1,587	1,593	1,605
	<b>Total</b>	<b>4,117</b>	<b>4,451</b>	<b>4,730</b>	<b>4,879</b>	<b>4,994</b>	<b>5,175</b>	<b>5,319</b>	<b>5,458</b>	<b>5,554</b>	<b>5,687</b>	<b>5,733</b>	<b>5,725</b>	<b>5,705</b>	<b>5,688</b>	<b>5,681</b>	<b>5,703</b>	<b>5,737</b>	<b>5,710</b>	<b>5,722</b>	<b>5,759</b>
LA-2	Direct	28,107	30,325	32,133	33,025	33,666	34,777	35,641	36,452	36,976	37,756	38,010	37,894	37,706	37,540	37,454	37,581	37,752	37,556	37,610	37,853
	Indirect	7,739	8,355	8,849	9,072	9,236	9,525	9,751	9,969	10,115	10,324	10,376	10,339	10,292	10,246	10,230	10,277	10,331	10,259	10,279	10,347
	Induced	15,759	17,131	18,298	18,975	19,526	20,338	21,022	21,683	22,192	22,839	23,093	23,125	23,113	23,107	23,137	23,269	23,429	23,371	23,447	23,625
	<b>Total</b>	<b>51,604</b>	<b>55,810</b>	<b>59,280</b>	<b>61,071</b>	<b>62,427</b>	<b>64,640</b>	<b>66,414</b>	<b>68,104</b>	<b>69,282</b>	<b>70,919</b>	<b>71,478</b>	<b>71,358</b>	<b>71,111</b>	<b>70,894</b>	<b>70,820</b>	<b>71,128</b>	<b>71,512</b>	<b>71,185</b>	<b>71,336</b>	<b>71,825</b>
LA-3	Direct	25,572	27,393	28,826	29,319	29,578	30,215	30,608	30,943	31,018	31,298	31,247	30,919	30,580	30,291	30,097	30,085	30,159	29,808	29,764	29,881
	Indirect	7,162	7,748	8,205	8,399	8,545	8,796	8,986	9,169	9,287	9,461	9,492	9,449	9,397	9,346	9,319	9,359	9,430	9,347	9,372	9,434
	Induced	12,749	13,792	14,638	15,038	15,338	15,830	16,211	16,572	16,811	17,153	17,238	17,173	17,091	17,018	16,982	17,043	17,154	17,031	17,066	17,174
	<b>Total</b>	<b>45,483</b>	<b>48,932</b>	<b>51,669</b>	<b>52,756</b>	<b>53,461</b>	<b>54,841</b>	<b>55,804</b>	<b>56,684</b>	<b>57,117</b>	<b>57,912</b>	<b>57,977</b>	<b>57,541</b>	<b>57,067</b>	<b>56,654</b>	<b>56,398</b>	<b>56,487</b>	<b>56,743</b>	<b>56,186</b>	<b>56,202</b>	<b>56,489</b>
LA-4	Direct	14,074	15,064	15,857	16,154	16,319	16,714	16,971	17,213	17,306	17,525	17,553	17,421	17,266	17,133	17,048	17,074	17,128	16,966	16,962	17,058
	Indirect	5,740	6,251	6,663	6,870	7,046	7,312	7,532	7,754	7,930	8,150	8,220	8,228	8,222	8,210	8,215	8,279	8,363	8,316	8,360	8,434
	Induced	8,803	9,520	10,093	10,346	10,537	10,868	11,121	11,374	11,549	11,794	11,852	11,818	11,722	11,702	11,722	11,760	11,857	11,763	11,802	11,892
	<b>Total</b>	<b>28,617</b>	<b>30,835</b>	<b>32,613</b>	<b>33,370</b>	<b>33,903</b>	<b>34,893</b>	<b>35,624</b>	<b>36,341</b>	<b>36,785</b>	<b>37,469</b>	<b>37,625</b>	<b>37,467</b>	<b>37,259</b>	<b>37,065</b>	<b>36,965</b>	<b>37,128</b>	<b>37,347</b>	<b>37,044</b>	<b>37,124</b>	<b>37,383</b>
MS-1	Direct	1,801	1,934	2,037	2,072	2,092	2,136	2,164	2,187	2,193	2,212	2,206	2,181	2,156	2,134	2,120	2,118	2,124	2,097	2,094	2,102
	Indirect	300	321	336	340	341	347	349	351	350	351	349	344	339	335	332	331	331	326	326	326
	Induced	671	723	764	780	790	810	824	837	843	854	854	846	839	832	828	828	831	823	823	827
	<b>Total</b>	<b>2,771</b>	<b>2,977</b>	<b>3,138</b>	<b>3,192</b>	<b>3,223</b>	<b>3,294</b>	<b>3,337</b>	<b>3,375</b>	<b>3,385</b>	<b>3,417</b>	<b>3,408</b>	<b>3,371</b>	<b>3,333</b>	<b>3,301</b>	<b>3,279</b>	<b>3,278</b>	<b>3,287</b>	<b>3,246</b>	<b>3,243</b>	<b>3,255</b>
TX-1	Direct	2,974	3,226	3,440	3,552	3,639	3,768	3,867	3,956	4,017	4,099	4,119	4,100	4,080	4,064	4,056	4,063	4,087	4,055	4,061	4,080
	Indirect	687	748	798	822	842	871	893	914	928	947	950	946	941	937	935	937	944	935	937	942
	Induced	1,378	1,507	1,619	1,686	1,743	1,819	1,883	1,942	1,989	2,046	2,066	2,066	2,065	2,064	2,066	2,076	2,092	2,083	2,090	2,104
	<b>Total</b>	<b>5,039</b>	<b>5,481</b>	<b>5,857</b>	<b>6,060</b>	<b>6,224</b>	<b>6,458</b>	<b>6,643</b>	<b>6,812</b>	<b>6,934</b>	<b>7,092</b>	<b>7,134</b>	<b>7,112</b>	<b>7,086</b>	<b>7,066</b>	<b>7,057</b>	<b>7,076</b>	<b>7,124</b>	<b>7,073</b>	<b>7,088</b>	<b>7,126</b>
TX-2	Direct	2,974	3,263	3,516	3,679	3,820	4,003	4,160	4,307	4,425	4,565	4,622	4,633	4,637	4,643	4,651	4,675	4,717	4,707	4,728	4,761
	Indirect	560	620	669	700	728	763	794	825	851	881	892	896	899	900	903	910	923	920	927	935
	Induced	992	1,099	1,193	1,259	1,319	1,394	1,461	1,525	1,581	1,644	1,672	1,684	1,693	1,701	1,708	1,722	1,743	1,744	1,755	1,771
	<b>Total</b>	<b>4,526</b>	<b>4,982</b>	<b>5,378</b>	<b>5,638</b>	<b>5,867</b>	<b>6,161</b>	<b>6,415</b>	<b>6,657</b>	<b>6,857</b>	<b>7,090</b>	<b>7,186</b>	<b>7,214</b>	<b>7,229</b>	<b>7,244</b>	<b>7,262</b>	<b>7,307</b>	<b>7,383</b>	<b>7,371</b>	<b>7,410</b>	<b>7,467</b>
TX-3	Direct	40,260	43,538	46,115	47,126	47,823	49,003	49,692	50,166	50,303</											

Table 4-46b

High-Case Employment Projected for the OCS Program by Economic Impact Area (Years 21-40)

EIA	Type	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Total
AL-1	Direct	4,242	4,240	4,241	4,259	4,275	4,303	4,316	4,323	4,324	4,323	4,341	4,345	4,355	4,370	4,365	4,359	4,358	4,367	4,363	4,367	169,586
	Indirect	881	881	881	885	888	895	897	899	898	898	902	902	905	908	907	904	904	907	905	906	35,537
	Induced	2,182	2,183	2,186	2,197	2,207	2,224	2,234	2,240	2,243	2,245	2,256	2,260	2,267	2,277	2,276	2,276	2,278	2,284	2,285	2,288	86,328
	Total	<b>7,305</b>	<b>7,304</b>	<b>7,308</b>	<b>7,341</b>	<b>7,371</b>	<b>7,422</b>	<b>7,448</b>	<b>7,463</b>	<b>7,466</b>	<b>7,466</b>	<b>7,499</b>	<b>7,508</b>	<b>7,526</b>	<b>7,555</b>	<b>7,548</b>	<b>7,539</b>	<b>7,539</b>	<b>7,557</b>	<b>7,553</b>	<b>7,561</b>	<b>291,451</b>
FL-1	Direct	1,254	1,257	1,261	1,269	1,276	1,287	1,295	1,301	1,306	1,309	1,316	1,321	1,326	1,333	1,335	1,337	1,340	1,345	1,347	1,351	48,716
	Indirect	242	243	243	244	246	248	249	250	251	251	252	253	254	256	256	255	256	256	256	257	9,630
	Induced	616	617	619	623	627	633	637	640	642	644	648	650	653	657	658	658	660	662	663	665	23,973
	Total	<b>2,112</b>	<b>2,117</b>	<b>2,123</b>	<b>2,136</b>	<b>2,149</b>	<b>2,168</b>	<b>2,181</b>	<b>2,191</b>	<b>2,199</b>	<b>2,204</b>	<b>2,216</b>	<b>2,224</b>	<b>2,234</b>	<b>2,246</b>	<b>2,249</b>	<b>2,250</b>	<b>2,255</b>	<b>2,263</b>	<b>2,267</b>	<b>2,273</b>	<b>82,319</b>
FL-2	Direct	533	532	532	534	536	540	541	542	541	540	543	543	545	546	546	541	541	543	542	542	21,839
	Indirect	148	149	149	150	150	152	153	153	153	153	154	154	155	156	156	155	155	156	156	156	5,949
	Induced	251	252	252	253	255	257	258	259	259	259	261	261	263	264	264	262	263	264	264	264	10,144
	Total	<b>932</b>	<b>933</b>	<b>932</b>	<b>937</b>	<b>941</b>	<b>948</b>	<b>952</b>	<b>954</b>	<b>953</b>	<b>953</b>	<b>958</b>	<b>958</b>	<b>962</b>	<b>966</b>	<b>967</b>	<b>959</b>	<b>959</b>	<b>962</b>	<b>961</b>	<b>962</b>	<b>37,931</b>
FL-3	Direct	1,071	1,071	1,072	1,077	1,083	1,091	1,096	1,100	1,100	1,102	1,107	1,109	1,113	1,119	1,119	1,117	1,118	1,121	1,122	1,124	42,485
	Indirect	365	366	366	368	369	373	374	376	375	376	378	378	380	382	382	381	381	383	383	383	14,578
	Induced	726	727	728	732	736	742	746	749	750	751	755	756	760	764	765	762	763	766	767	768	28,815
	Total	<b>2,162</b>	<b>2,164</b>	<b>2,166</b>	<b>2,177</b>	<b>2,188</b>	<b>2,206</b>	<b>2,217</b>	<b>2,225</b>	<b>2,225</b>	<b>2,228</b>	<b>2,239</b>	<b>2,244</b>	<b>2,253</b>	<b>2,264</b>	<b>2,266</b>	<b>2,260</b>	<b>2,262</b>	<b>2,270</b>	<b>2,271</b>	<b>2,275</b>	<b>85,879</b>
FL-4	Direct	310	308	307	309	312	317	320	322	321	320	321	322	324	327	328	323	324	326	326	327	12,759
	Indirect	171	171	171	172	173	176	177	178	178	178	179	179	180	182	182	181	181	182	182	183	6,937
	Induced	285	284	284	286	289	293	296	297	297	297	298	299	301	303	304	301	302	304	304	305	11,527
	Total	<b>766</b>	<b>764</b>	<b>762</b>	<b>766</b>	<b>774</b>	<b>786</b>	<b>793</b>	<b>798</b>	<b>796</b>	<b>794</b>	<b>798</b>	<b>800</b>	<b>805</b>	<b>811</b>	<b>815</b>	<b>805</b>	<b>808</b>	<b>812</b>	<b>813</b>	<b>815</b>	<b>31,223</b>
LA-1	Direct	3,533	3,532	3,536	3,553	3,570	3,596	3,611	3,620	3,628	3,629	3,644	3,649	3,657	3,673	3,669	3,674	3,676	3,685	3,687	3,693	138,923
	Indirect	634	635	636	639	642	647	650	652	653	654	657	658	660	663	663	663	664	667	667	668	25,002
	Induced	1,613	1,616	1,620	1,630	1,639	1,653	1,662	1,670	1,675	1,678	1,687	1,692	1,697	1,706	1,707	1,711	1,714	1,721	1,723	1,728	62,738
	Total	<b>5,780</b>	<b>5,783</b>	<b>5,793</b>	<b>5,822</b>	<b>5,851</b>	<b>5,897</b>	<b>5,923</b>	<b>5,942</b>	<b>5,956</b>	<b>5,961</b>	<b>5,989</b>	<b>5,999</b>	<b>6,014</b>	<b>6,043</b>	<b>6,040</b>	<b>6,049</b>	<b>6,058</b>	<b>6,072</b>	<b>6,076</b>	<b>6,089</b>	<b>226,663</b>
LA-2	Direct	37,978	37,969	38,016	38,206	38,395	38,690	38,860	38,969	39,043	39,059	39,224	39,282	39,364	39,547	39,507	39,528	39,548	39,649	39,662	39,734	1,496,043
	Indirect	10,391	10,409	10,429	10,491	10,546	10,626	10,676	10,713	10,731	10,748	10,806	10,826	10,861	10,911	10,911	10,907	10,918	10,959	10,960	10,981	410,706
	Induced	23,742	23,790	23,859	24,003	24,142	24,339	24,470	24,575	24,659	24,710	24,842	24,910	24,989	25,120	25,127	25,192	25,234	25,320	25,354	25,421	924,276
	Total	<b>72,111</b>	<b>72,168</b>	<b>72,303</b>	<b>72,699</b>	<b>73,083</b>	<b>73,655</b>	<b>74,006</b>	<b>74,257</b>	<b>74,433</b>	<b>74,517</b>	<b>74,872</b>	<b>75,019</b>	<b>75,214</b>	<b>75,578</b>	<b>75,546</b>	<b>75,627</b>	<b>75,699</b>	<b>75,927</b>	<b>75,976</b>	<b>76,137</b>	<b>2,831,025</b>
LA-3	Direct	29,938	29,905	29,896	30,013	30,112	30,297	30,375	30,404	30,385	30,362	30,479	30,485	30,538	30,635	30,574	30,497	30,471	30,531	30,489	30,504	1,204,490
	Indirect	9,476	9,498	9,515	9,572	9,623	9,701	9,746	9,780	9,787	9,804	9,861	9,875	9,912	9,958	9,961	9,950	9,962	10,006	10,006	10,027	375,722
	Induced	17,245	17,272	17,303	17,399	17,485	17,621	17,698	17,756	17,781	17,806	17,899	17,930	17,987	18,069	18,067	18,069	18,069	18,149	18,153	18,189	681,065
	Total	<b>56,659</b>	<b>56,675</b>	<b>56,714</b>	<b>56,984</b>	<b>57,220</b>	<b>57,619</b>	<b>57,819</b>	<b>57,940</b>	<b>57,953</b>	<b>57,972</b>	<b>58,238</b>	<b>58,290</b>	<b>58,437</b>	<b>58,661</b>	<b>58,602</b>	<b>58,516</b>	<b>58,519</b>	<b>58,686</b>	<b>58,649</b>	<b>58,720</b>	<b>2,261,276</b>
LA-4	Direct	17,098	17,077	17,079	17,156	17,222	17,339	17,389	17,416	17,404	17,409	17,470	17,464	17,488	17,552	17,507	17,511	17,497	17,543	17,519	17,538	682,480
	Indirect	8,485	8,519	8,548	8,610	8,666	8,747	8,797	8,843	8,857	8,891	8,949	8,968	9,009	9,059	9,071	9,083	9,103	9,155	9,162	9,192	331,811
	Induced	11,950	11,979	12,006	12,082	12,148	12,249	12,306	12,355	12,393	12,463	12,476	12,523	12,583	12,590	12,666	12,666	12,666	12,666	12,666	12,666	471,620
	Total	<b>37,534</b>	<b>37,575</b>	<b>37,633</b>	<b>37,848</b>	<b>38,036</b>	<b>38,334</b>	<b>38,493</b>	<b>38,614</b>	<b>38,619</b>	<b>38,692</b>	<b>38,892</b>	<b>38,908</b>	<b>39,020</b>	<b>39,193</b>	<b>39,161</b>	<b>39,184</b>	<b>39,203</b>	<b>39,364</b>	<b>39,342</b>	<b>39,422</b>	<b>1,485,911</b>
MS-1	Direct	2,106	2,104	2,104	2,112	2,119	2,133	2,138	2,141	2,139	2,138	2,147	2,148	2,154	2,161	2,158	2,148	2,148	2,152	2,150	2,150	84,911
	Indirect	327	326	326	327	328	330	331	331	330	331	331	332	333	333	330	330	331	330	330	330	13,324
	Induced	829	829	829	833	837	843	846	847	847	848	851	853	855	858	855	855	858	858	857	858	33,173
	Total	<b>3,262</b>	<b>3,260</b>	<b>3,259</b>	<b>3,273</b>	<b>3,284</b>	<b>3,306</b>	<b>3,315</b>	<b>3,320</b>	<b>3,317</b>	<b>3,316</b>	<b>3,330</b>	<b>3,332</b>	<b>3,341</b>	<b>3,352</b>	<b>3,349</b>	<b>3,335</b>	<b>3,333</b>	<b>3,341</b>	<b>3,337</b>	<b>3,338</b>	<b>131,408</b>
TX-1	Direct	4,095	4,099	4,106	4,125	4,142	4,172	4,187	4,200	4,204	4,211	4,231	4,240	4,255	4,273	4,273	4,271	4,274	4,287	4,288	4,296	161,529
	Indirect	946	948	950	955	959	967	970	974	974	976	982	984	988	992	993	992	993	997	998	1,000	37,394
	Induced	2,114	2,120	2,126	2,138	2,149	2,166	2,172	2,186	2,192	2,198	2,212	2,217	2,226	2,237	2,240	2,243	2,246	2,256	2,259	2,265	82,355
	Total	<b>7,155</b>	<b>7,167</b>	<b>7,182</b>	<b>7,218</b>	<b>7,251</b>	<b>7,305</b>	<b>7,335</b>	<b>7,360</b>	<b>7,370</b>	<b>7,385</b>	<b>7,423</b>	<b>7,441</b>	<b>7,469</b>	<b>7,502</b>	<b>7,506</b>	<b>7,505</b>	<b>7,515</b>	<b>7,540</b>	<b>7,545</b>	<b>7,561</b>	<b>281,278</b>
TX-2	Direct	4,786	4,798	4,814	4,841	4,870	4,912	4,939	4,963	4,979	4,992	5,020	5,037	5,058	5,086	5,092	5,104	5,117	5,135	5,146	5,161	185,335
	Indirect	942	947	952	959	966	976	982	989	991	996	1,003	1,007	1,013	1,019	1,022	1,023	1,027	1,034	1,036	1,040	36,420
	Induced	1,783	1,790	1,79																		

Table 4-47

## Employment Projected for the OCS Program as a Percent of Total Employment by Economic Impact Area

Calendar Year	Model Year	AL-1		MS-1		LA-1		LA-2		LA-3		LA-4		TX-1		TX-2		TX-3		FL-1		FL-2		FL-3		FL-4	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
2007	1	1.3	1.6	0.9	1.1	1.9	2.4	14.1	17.5	5.9	7.5	2.8	3.5	0.6	0.7	1.3	1.6	2.1	2.8	0.2	0.3	0.2	0.3	0.1	0.0	0.0	1.5
2008	2	1.3	1.7	0.9	1.2	2.0	2.5	14.1	18.2	5.6	7.3	4.0	5.2	0.6	0.7	1.3	1.7	2.1	2.9	0.2	0.3	0.2	0.3	0.1	0.0	0.0	1.5
2009	3	1.3	1.7	0.9	1.2	2.0	2.6	14.5	19.0	5.7	7.7	4.0	5.3	0.6	0.8	1.4	1.8	2.2	3.1	0.2	0.3	0.2	0.3	0.1	0.0	0.0	1.6
2010	4	1.4	1.7	0.9	1.2	2.1	2.7	15.1	19.4	6.0	7.7	4.1	5.3	0.6	0.8	1.5	1.9	2.2	3.1	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.6
2011	5	1.3	1.7	0.9	1.2	2.1	2.7	14.9	19.5	5.8	7.8	3.9	5.2	0.6	0.8	1.5	1.9	2.2	3.1	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.6
2012	6	1.4	1.8	1.0	1.2	2.2	2.8	15.6	20.0	6.1	7.9	4.1	5.2	0.6	0.8	1.5	2.0	2.3	3.1	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.6
2013	7	1.4	1.8	0.9	1.2	2.2	2.8	15.6	20.3	6.0	8.0	3.9	5.2	0.6	0.8	1.6	2.0	2.2	3.1	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.6
2014	8	1.4	1.8	1.0	1.2	2.3	2.8	16.2	20.5	6.3	8.0	4.1	5.1	0.7	0.8	1.6	2.1	2.3	3.1	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.7
2015	9	1.4	1.8	0.9	1.2	2.2	2.9	16.0	20.6	6.2	8.0	3.9	5.1	0.6	0.8	1.6	2.1	2.3	3.0	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.6
2016	10	1.4	1.8	1.0	1.2	2.3	2.9	16.6	20.8	6.4	8.0	4.0	5.0	0.7	0.8	1.7	2.1	2.3	3.0	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.7
2017	11	1.4	1.8	0.9	1.2	2.3	2.9	16.3	20.8	6.2	8.0	3.8	4.9	0.6	0.8	1.7	2.1	2.3	3.0	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.6
2018	12	1.4	1.7	0.9	1.2	2.3	2.8	16.5	20.5	6.3	7.8	3.9	4.8	0.7	0.8	1.7	2.1	2.3	2.9	0.3	0.3	0.2	0.3	0.1	0.0	0.0	1.7
2019	13	1.4	1.7	0.9	1.1	2.2	2.8	15.9	20.2	6.1	7.7	3.6	4.6	0.6	0.8	1.6	2.1	2.2	2.8	0.3	0.3	0.2	0.2	0.1	0.0	0.0	1.6
2020	14	1.4	1.7	0.9	1.1	2.2	2.8	16.1	19.9	6.2	7.6	3.7	4.5	0.6	0.8	1.7	2.1	2.2	2.8	0.3	0.3	0.2	0.2	0.1	0.0	0.0	1.6
2021	15	1.3	1.7	0.9	1.1	2.2	2.7	15.7	19.6	6.0	7.5	3.5	4.4	0.6	0.8	1.6	2.0	2.1	2.7	0.3	0.3	0.2	0.2	0.1	0.0	0.0	1.5
2022	16	1.4	1.6	0.9	1.1	2.2	2.7	15.9	19.5	6.1	7.4	3.5	4.3	0.6	0.8	1.6	2.0	2.1	2.7	0.3	0.3	0.2	0.2	0.1	0.0	0.0	1.6
2023	17	1.3	1.6	0.8	1.0	2.2	2.7	15.6	19.4	6.0	7.4	3.4	4.2	0.6	0.8	1.6	2.0	2.1	2.6	0.3	0.3	0.2	0.2	0.1	0.0	0.0	1.5
2024	18	1.3	1.6	0.8	1.0	2.1	2.7	15.4	19.1	5.9	7.3	3.3	4.1	0.6	0.7	1.6	2.0	2.0	2.6	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.5
2025	19	1.3	1.6	0.8	1.0	2.1	2.6	15.2	18.9	5.8	7.2	3.2	4.0	0.6	0.7	1.6	2.0	2.0	2.5	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.5
2026	20	1.3	1.6	0.8	1.0	2.1	2.6	15.2	18.8	5.8	7.2	3.2	3.9	0.6	0.7	1.6	2.0	2.0	2.5	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.4
2027	21	1.3	1.6	0.8	1.0	2.1	2.6	15.0	18.7	5.7	7.2	3.1	3.9	0.6	0.7	1.6	2.0	1.9	2.5	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.4
2028	22	1.2	1.5	0.8	1.0	2.1	2.6	14.8	18.6	5.7	7.1	3.0	3.8	0.6	0.7	1.5	1.9	1.9	2.5	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.4
2029	23	1.2	1.5	0.8	1.0	2.0	2.6	14.7	18.4	5.6	7.1	3.0	3.7	0.6	0.7	1.5	1.9	1.9	2.4	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.4
2030	24	1.2	1.5	0.8	1.0	2.0	2.5	14.6	18.3	5.6	7.0	2.9	3.7	0.6	0.7	1.5	1.9	1.9	2.4	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.4
2031	25	1.2	1.5	0.7	0.9	2.0	2.5	14.5	18.2	5.6	7.0	2.9	3.6	0.5	0.7	1.5	1.9	1.9	2.4	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.4
2032	26	1.2	1.5	0.7	0.9	2.0	2.5	14.5	18.2	5.6	7.0	2.8	3.6	0.5	0.7	1.5	1.9	1.8	2.4	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.3
2033	27	1.2	1.5	0.7	0.9	2.0	2.5	14.4	18.1	5.6	7.0	2.8	3.5	0.5	0.7	1.5	1.9	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.3
2034	28	1.2	1.5	0.7	0.9	2.0	2.5	14.2	17.9	5.5	6.9	2.7	3.5	0.5	0.7	1.5	1.9	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.3
2035	29	1.2	1.5	0.7	0.9	2.0	2.5	14.1	17.8	5.5	6.9	2.7	3.4	0.5	0.7	1.5	1.9	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.3
2036	30	1.2	1.5	0.7	0.9	2.0	2.4	14.1	17.6	5.5	6.8	2.6	3.3	0.5	0.7	1.5	1.8	1.8	2.3	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.3
2037	31	1.2	1.5	0.7	0.9	1.9	2.4	14.0	17.5	5.4	6.8	2.6	3.3	0.5	0.6	1.5	1.8	1.7	2.2	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.3
2038	32	1.1	1.4	0.7	0.9	1.9	2.4	13.8	17.4	5.4	6.8	2.5	3.2	0.5	0.6	1.4	1.8	1.7	2.2	0.2	0.3	0.2	0.2	0.1	0.0	0.0	1.3
2039	33	1.1	1.4	0.7	0.9	1.9	2.4	13.7	17.3	5.3	6.7	2.5	3.1	0.5	0.6	1.4	1.8	1.7	2.2	0.2	0.3	0.1	0.2	0.1	0.0	0.0	1.2
2040	34	1.1	1.4	0.7	0.9	1.9	2.4	13.6	17.2	5.3	6.7	2.4	3.1	0.5	0.6	1.4	1.8	1.7	2.2	0.2	0.3	0.1	0.2	0.1	0.0	0.0	1.2
2041	35	1.1	1.4	0.7	0.8	1.9	2.4	13.5	17.0	5.3	6.6	2.4	3.0	0.5	0.6	1.4	1.8	1.7	2.1	0.2	0.3	0.1	0.2	0.1	0.0	0.0	1.2
2042	36	1.1	1.4	0.6	0.8	1.8	2.3	13.3	16.8	5.2	6.6	2.3	3.0	0.5	0.6	1.4	1.8	1.6	2.1	0.2	0.2	0.1	0.2	0.1	0.0	0.0	1.2
2043	37	1.1	1.4	0.6	0.8	1.8	2.3	13.2	16.7	5.1	6.5	2.3	2.9	0.5	0.6	1.4	1.7	1.6	2.1	0.2	0.2	0.1	0.2	0.1	0.0	0.0	1.2
2044	38	1.1	1.4	0.6	0.8	1.8	2.3	13.1	16.5	5.1	6.5	2.2	2.8	0.5	0.6	1.4	1.7	1.6	2.1	0.2	0.2	0.1	0.2	0.1	0.0	0.0	1.2
2045	39	1.1	1.4	0.6	0.8	1.8	2.3	13.0	16.4	5.1	6.4	2.2	2.8	0.5	0.6	1.4	1.7	1.6	2.0	0.2	0.2	0.1	0.2	0.1	0.0	0.0	1.1
2046	40	1.1	1.4	0.6	0.8	1.8	2.3	12.9	16.2	5.0	6.4	2.1	2.7	0.5	0.6	1.3	1.7	1.6	2.0	0.2	0.2	0.1	0.2	0.0	0.0	0.0	1.1

Source: Employment output from MMS's economic impact model MAG-PLAN as a percentage of baseline employment projections based on Woods &amp; Poole Economics, Inc. (2006).

Table A-1  
Watermasses in the Gulf of Mexico

Watermass	Eastern Gulf of Mexico			Western Gulf of Mexico		
	Depth	Feature(s)	Sigma-theta (m)(mg/cm <sup>3</sup> )	Depth	Feature(s)	Sigma-theta (m)(mg/cm <sup>3</sup> )
SUW-LC	150-250	S <sub>max</sub>	25.40	NA	NA	NA
SUW	150-250	S <sub>max</sub>	25.40	0-250	S <sub>max</sub>	25.40
18°C W	200-400	O <sub>2max</sub>	26.50	NA	NA	NA
TACW	400-700	O <sub>2min</sub>	27.15	250-400	O <sub>2min</sub>	27.15
AAIW	NA	NA	NA	500-700	NO <sub>3max</sub>	27.30
AAIW	700-900	PO <sub>4max</sub>	27.40	600-800	PO <sub>4max</sub>	27.40
AAIW	800-1,000	S <sub>min</sub>	27.50	700-800	S <sub>min</sub>	27.50
UNADW	900-1,200	SiO <sub>2max</sub>	NA	1,000-1,100	SiO <sub>2max</sub>	NA
		SiO <sub>2max</sub>	27.70		SiO <sub>2max</sub>	27.70

## Key:

- 18°C W = 18 degrees Centigrade Sargasso Sea Water.  
 AAIW = Antarctic intermediate water.  
 NA = information not available.  
 NO<sub>3max</sub> = nitrate maximum.  
 O<sub>2max</sub> = dissolved oxygen maximum.  
 O<sub>2min</sub> = dissolved oxygen minimum.  
 PO<sub>4max</sub> = phosphate maximum.  
 SiO<sub>2max</sub> = silicate maximum.  
 S<sub>max</sub> = salinity maximum.  
 S<sub>min</sub> = salinity minimum.  
 SUW = subtropical underwater in the Gulf but outside the Loop Current.  
 SUW-LC = subtropical underwater in the Loop Current and new Loop Current eddies.  
 TACW = tropical Atlantic central water.  
 UNADW = mixture of upper North Atlantic deep water and high-silicate Caribbean mid-water.

Table A-2

## Climatological Data for Selected Gulf Coast Locations

Location	Precipitation (annual average, meters)	Temperature (mean annual, °C)	Wind Speed (average annual mean, m/sec)	Humidity (average percent)	Barometric Pressure (average annual millibars)	Stability Conditions Annual Percent		
						Unstable	Neutral	Stable
Corpus Christi, TX	0.77	21.7	5.4	89	1,014	11.0	61.0	28.0
Galveston, TX	1.07	20.9	4.9	83	1,015	16.0	61.4	22.6
Lake Charles, LA	1.35	19.9	3.9	90	1,016	23.0	44.0	33.0
Gulfport, MS	1.50	20.0	3.6	85	1,016	17.5	47.4	35.1
Pensacola, FL	1.55	19.9	3.7	85	1,013	18.0	22.0	60.0
Key West, FL	1.01	25.3	5.0	79	1,014	80.0	18.0	2.0

Source: USDOC, NOAA, 1961-1986.

Table A-3

## Summary of the Most Damaging Hurricanes in the Gulf of Mexico (1900-2005)

Hurricane	Year	Category <sup>1</sup>	Damage (million \$)	Deaths
Texas	1900	4	NA	6,000+
Mississippi/Alabama/Pensacola, Florida	1906	3	NA	134
Southeast Florida	1906	2	NA	164
Louisiana	1909	4	NA	350
Texas	1909	3	NA	41
Louisiana	1915	4	NA	275
North Texas	1915	4	1,177	275
Southwest Louisiana	1918	3	NA	34
Florida Keys	1919	4	NA	600-900
Florida	1926	4	1,315	243
Louisiana	1926	3	NA	25
Texas	1932	4	NA	40
South Texas	1933	3	NA	40
Southwest Florida	1944	3	582	NA
Southeast Florida/Louisiana/Mississippi	1947	4	707	51
Audrey (Louisiana/Texas)	1957	4	696	390
Carla (Texas)	1961	4	1,926	46
Hilda (Louisiana)	1964	3	578	38
Betsy (Florida/Louisiana)	1965	3	6,461	75
Beulah (Texas)	1967	3	844	NA
Camille (Mississippi/Alabama)	1969	5	5,242	256
Celia (Texas)	1970	3	1,560	NA
Eloise (Florida)	1975	3	1,081	NA
Claudette (Texas)	1979	T.S.	609	NA
Frederic (Alabama/Mississippi)	1979	3	3,502	NA
Allen (Texas)	1980	3	410	NA
Alicia (Texas)	1983	3	2,391	NA
Elena (Mississippi/Alabama/Louisiana)	1985	3	1,392	NA
Juan (Louisiana)	1985	1	1,671	NA
Allison (Texas)	1989	T.S.	511	NA
Andrew (Florida/Louisiana)	1992	4	30,475	NA
Gordon (Florida)	1994	T.S.	400	NA
Alberto (Florida/Alabama)	1994	T.S.	500	30
Erin (Florida/Miss/Alabama)	1995	1	700	NA
Opal (Florida/Alabama)	1995	3	3,069	NA
Danny (Louisiana/Florida)	1997	1	NA	NA
Earl (Florida)	1998	1	NA	NA
Georges (Florida/Mississippi)	1998	2	NA	NA
Bret (Texas)	1999	4	NA	NA
Irene (Florida)	1999	1	NA	NA
Allison (Texas)	2001	T.S.	5,000	NA
Lili (Louisiana)	2002	1	860	NA
Jeanne (Florida)	2004	3	6,900	NA
Frances (Florida)	2004	2	8,900	NA
Ivan (Alabama/Florida)	2004	3	14,200	NA
Charley (Florida)	2004	4	15,000	NA



Table A-3. Summary of the Most Damaging Hurricanes in the Gulf of Mexico (1900-2005)  
(continued)

Hurricane	Year	Category <sup>1</sup>	Damage (million \$)	Deaths
Dennis (Florida)	2005	3	2,230	42
Katrina (Louisiana/Mississippi/Alabama)	2005	3	75,000-100,000	1,600+
Rita (Texas/Louisiana)	2005	3	10,000	6
Wilma (Florida)	2005	3	12,200	22

Sources: Modified from Herbert et al., 1992.

USDOC, NOAA, NHC, 2001.

USDOC, NOAA, NHC, 2006.

<sup>1</sup> Storm category at landfall from the Saffir-Simpson scale.

Category 1 = winds of 74-95 mph

Category 4 = winds of 131-155 mph

Category 2 = winds of 96-110 mph

Category 5 = winds greater than 155 mph

Category 3 = winds of 111-130 mph

T.S. = tropical storm.

NA = data not available.

Table A-4

Rigs-to-Reefs Donations and Methods of Removal and Reefing by State as of May 2006

State	Rigs-to-Reefs Donations	Tow-and-Place Platforms	Topple-in-Place Platforms	Partial Removal Platforms
Louisiana	147	91	49	7
Texas	83	40	16	27
Florida	3	3	0	0
Alabama	6	6	0	0
Mississippi	8	3	5	0
Total	247	143	70	34

Table A-5

## MMS-Funded Hurricane Research and Studies

Subject	Description
Hurricanes Katrina and Rita	
Joint Industry Project to Study Risk-Based Restarts of Untreated Subsea Oil and Gas Flowlines in the GOMR (Project No. 579)	This project assesses potential solutions to the disruptions of production restart from hydrates affecting pipelines after a long shut-in period such as a hurricane. Preliminary work shows that it may be possible to reduce the risk of hydrate plugging by selecting an appropriate restart rate. The MMS and industry will use the results of this project to reduce the risk of having hydrates stop production restarts.
Hindcast Data on Winds, Waves and Currents in Northern Gulf of Mexico in Hurricanes Katrina and Rita (2005) (Project No. 580)	The study objective is to develop a database of wind, sea state, and currents resulting from Hurricanes Katrina and Rita meteorological data and application of advanced hindcast models. The study contractor has already responded to urgent industry needs for a preliminary assessment of the impact of Hurricanes Katrina and Rita by performing and distributing to several offshore operators an "emergency response (ER)" wind and wave hindcast. The study contractor will make that same data immediately available to the other MMS contracted researchers providing Hurricane Katrina/Rita research then, following completion of the study contractor's new work, they will deliver a second and more in-depth hindcast data analysis (referred to as "fast response (FR)" that results from this new study. The FR hindcast differs from the ER hindcast in the following ways: (1) it will use a larger base of measured wind, wave, surge, and current data, (2) it will include a more detailed reanalysis of the wind field; (3) particular attention will be paid to provision of much higher resolution in shallow water and to the inclusion of the storm-perturbed water level in the shallow-water wave hindcast; and (4) more robust 1D and 2D current models will be adopted.
Pipeline Damage Assessment from Hurricane Katrina/Rita (Project No. 581)	The objective of the study is to find out what happened to the GOM pipeline infrastructure during Hurricanes Katrina and Rita and how to be better prepared in the future to reduce hurricane damage in the GOM. The study contractor proposes development of a web-based pipeline damage reporting system with MMS's eWell system. The intent of the web-based program is to allow operators with options to report their operational status more quickly and efficiently following a major event, plus it allows MMS the means to automate data collection and reporting.
Assessment of Fixed Offshore Platform Performance in Hurricanes Katrina and Rita (Project No. 578)	The objective of this effort is to conduct a qualitative and quantitative assessment of fixed offshore platforms that were affected by Hurricane Katrina and/or Rita. Resulting data will be evaluated to determine if any common trends occur, and also to determine if current API standards are an accurate indicator of expected performance. Coordination and consultation with the API HEAT group will occur throughout the project.
Modeling Waves and Currents Produced by Hurricanes Katrina and Rita (GM-06-x10)	<p>The objective of the study is to assess the response of waves and currents throughout the water column on the northern GOM slope and shelf to Hurricanes Katrina and Rita, using numerical modeling techniques in conjunction with available meteorological and physical oceanographic data. In particular, this study aims at</p> <ol style="list-style-type: none"> <li>1. a realistic simulation of circulation throughout the entire water column in the northern GOM continental slope and shelf regions, including the response of currents and waves to Hurricanes Katrina and Rita;</li> <li>2. determination of the length of time for which substantial ocean response to these hurricanes persisted; and</li> <li>3. determination of the area or areas of greatest wave height and current speed.</li> </ol>

<p>Post-Hurricane Assessment of Sensitive Habitats of the Flower Garden Banks Vicinity (GM-06-x11)</p>	<p>The condition of the communities on the banks selected for the study is important to the health of the ecosystem as a whole. This study will conduct field surveys at the East Flower Garden Bank and at Sonnier, Geyer, and possibly West Flower Garden and McGrail Banks to determine their condition and to track the progress of recovery from Hurricane Rita effects. The study will enhance MMS's ability to distinguish natural from anthropogenic impacts. Results from the study of these banks can be considered representative of others in the area and will improve the MMS's ability to make management decisions.</p>
<p>Post-Hurricane Assessment of OCS-Related Infrastructure and Communities in the Gulf of Mexico Region (GM-92-42-124)</p>	<p>The primary objective of this project is to update the existing Infrastructure Fact Book in light of the recent changes in the industry and the region. The goal will be a better understanding of the impacts that the 2005 tropical activity may have on future onshore infrastructure development trends and outlooks. A second objective will be to reorganize and supplement some of the information to better support EIS development. In addition to updating the underlying data, the original data documentation will be updated to ensure that the metadata associated with the project meets newer MMS data collection standards that have been developed since the original project concluded. The project will also conduct a socioeconomic analysis of select communities with a high concentration of OCS-related infrastructure. This analysis will take the existing GIS infrastructure information, as well as additions and supplements developed during this project, and identify communities of interest. For a set of 6-10 communities selected, detailed community profiles will be developed using Census data.</p>
<p>Spatial Restructuring and Fiscal Impacts in the Wake of Disaster: The Case of the Oil and Gas Industry Following Hurricanes Katrina and Rita (GM-92-42-125)</p>	<p>The objective of the study is to examine the following research questions:</p> <ol style="list-style-type: none"> <li>1. What role will the oil and gas industry play in providing employment stability in the region in the aftermath of the storms, and how will this change over time?</li> <li>2. Will a spatial shift of employment occur in response to the storms? If so, which areas stand to benefit and which areas stand to suffer from these changes?</li> <li>3. How will the response of the oil and gas industry compare with other major industrial sectors in terms of its impact on employment and thus the region's recovery?</li> <li>4. What strategies will the oil and gas industry use to recruit new and retain current employees?</li> <li>5. What fiscal effects will the industry have on impacted communities, Gulf States, and the Gulf region?</li> </ol>
<p>Hurricane Ivan</p>	
<p>Examination and Review of Mobile Offshore Drilling Unit (MODU) Loss of Station-keeping Ability during Hurricane Ivan and Assessment of Current Mooring Standards and Criteria to Prevent Similar Failures (Project No. 548)</p>	<p>The project examined the loss of MODU station-keeping in the Gulf of Mexico during Hurricane Ivan in September 2004, comparing those findings with that of recent Hurricanes Andrew (1992) and Lili (2002), and it assessed the current mooring standards and criteria to prevent similar failures.</p>
<p>Assessment of Fixed Offshore Platforms in Hurricane Ivan, Andrew (Project No. 549)</p>	<p>Based on the damage data collected from Hurricanes Ivan (2004), Andrew (1992), and Lili (2002), this project determined the effectiveness of current structural design standards and MMS regulations. It analyzed the effectiveness of API RP2A and Section 17 to see if both the API standards and MMS regulations performed as expected for the assessment of existing fixed platforms.</p>
<p>A Pilot Study for Regionally-Consistent Hazard Susceptibility Mapping of Submarine Mudslides, Offshore Gulf of Mexico (Project No. 550)</p>	<p>During Hurricane Ivan in 2004, a number of GOM pipelines and platforms were believed to have been impacted by mudslides in the region of Ivan's path. This project provides hazard information for the design and placement of new pipelines and structures by determining the applicability of developing regionally consistent hazard maps that delineate relative susceptibility of GOM offshore regions to future submarine mudslides, including identification of past and future probable locations of underwater slope failures. The project consists of a pilot test to map the seafloor bottom using high-resolution bathymetric and seismic data to delineate past mudslide failures, sediments susceptible to failure, and areas of relative stability. An important part of this mapping is to determine the relative ages of sediment and past failures in order to evaluate where future failures are most likely to occur, and equally important, likely to not occur.</p>

Assessment of Drilling and Workover Rig Storm Sea Fastenings on Offshore Floating Platforms During Hurricane Ivan (Project No. 551)	Drilling and workover rigs on floating production systems (FPS's) are held to the decks by sea fastenings to prevent movement during hurricanes. During Hurricane Ivan, a number of drilling or workover rigs shifted. These movements are assessed, along with the current design philosophy and criteria for storm sea fastenings, rig and storm sea fastening installation practices, and onboard storm operational practices to ready FPS's for a hurricane. The study's results provide information that can be used to assess any needs to revise tie-down criteria or practices.
Mudslides during Hurricane Ivan and an Assessment of the Potential for Future Mudslides in the GOM (Project No. 552)	During 2004 and 2005, Hurricanes Ivan, Katrina, and Rita damaged and destroyed hundreds of GOM pipelines and platforms, many from mudslides both in line with and adjacent to the hurricanes' paths. This project examines and reviews the mudflow/mudslide areas in the GOM caused by hurricanes. Revised and/or new maps indicating areas of high risk were produced. This will be accomplished through a review of both historical data, as well as new data that resulted from Hurricanes Ivan, Katrina, and Rita.
Pipeline Damage Assessment from Hurricane Ivan (Project No. 553)	In September 2004, Hurricane Ivan, a Category 4 hurricane, moved through the GOM with winds and waves that exceeded the 100-year storm design criteria of offshore facilities. Approximately 10,000 mi of pipelines were in the direct path of Hurricane Ivan. The MMS received industry damage assessment reports identifying damage to the offshore pipeline infrastructure. This project determined the type, cause, and extent of pipeline damage incurred during Hurricane Ivan and provides guidance for improving pipeline integrity/design to reduce potential damage from future GOM hurricanes.
Offshore Hurricane Readiness & Recovery Conference (Project No. 559)	The Offshore Hurricane Readiness & Recovery Conference, co-sponsored by MMS, was held July 26-27, 2005, in Houston, Texas. The conference brought industry and government officials together to share and learn from the experiences of Hurricane Ivan to improve future performance and reliability of offshore operations in the GOM.
Ocean Currents under Hurricane Ivan on the Mississippi/Alabama Shelf (GM-05-x12)	The purpose of this interagency agreement is to analyze vertical profiles of ocean currents prior to, during, and after the passage of Hurricane Ivan to assess the response of the ocean to such an energetic atmospheric event. In particular, a 3-dimensional response of ocean currents will be sought by the Naval Research Laboratory research team.
Hurricane Lili	
Validation and Calibration of API RP2A Using Hurricane Lili to Update the Hurricane Andrew Joint Industry Project (JIP) Results that Provided the Basis for API Section 17 (Project No. 466)	This project updates the API RP2A section using Hurricane Lili data to validate and calibrate Hurricane Andrew's JIP results. The general project objectives were to <ol style="list-style-type: none"> <li>1. determine the validity of the API RP2A process using a combined set of Hurricane Andrew and Hurricane Lili data;</li> <li>2. determine the anticipated conservatism of the API process, if any, by determining the bias factors for the jacket and foundation;</li> <li>3. identify the areas of the API design process, wave load, foundation design, etc., that provide the most significant bias contributors; and</li> <li>4. make recommendations on improvements to API RP2A.</li> </ol>
Hindcast Study of Winds, Waves, and Currents in Northern GOM in Hurricane Lili (2002) (Project No. 467)	The purpose of this study was to develop a description of the evolution and distribution of the surface wind field, wave, salinity, sea-surface temperature, and current field in the northern GOM during the approach and passage of Hurricane Lili in 2002. The hindcast used all available public domain meteorological and oceanographic measured data, and Oceanweather's most accurate cyclone wind and wave hindcast methods. Hindcast results are validated against available measured data and an assessment of the accuracy of the hindcast provided with the results. The narrative report includes a description of the data sources, storm evolution (track and intensity), wind and wave hindcast method and a summary of results.
Post-Mortem Failure Assessment of Drilling Rigs during Hurricane Lili (Project No. 469)	The project studied the failures of offshore drilling rigs, MODU's, and jackup rigs associated with the passage of Hurricane Lili in the autumn of 2002. It developed recommendations for updates on criteria, reviewed data from the Hurricane Andrew timeframe, and the made recommendations to SNAME RP for possible future mitigation action.

Assessment of Performance of Deepwater Floating Production Facilities (Project No. 471)	This project collected and assessed information on the performance of deepwater production facilities that were impacted by Hurricane Lili (2002). This study formed the basis for developing recommendations for improvement in design and operation of installations such as <ol style="list-style-type: none"> <li>1. vortex-induced vibration of risers;</li> <li>2. loss of air gap with wave loading on decks;</li> <li>3. tension leg platform TLP performance; and</li> <li>4. spar performance measurements.</li> </ol>
Evaluate and Compare Hurricane-Induced Damage to Offshore Pipelines for Hurricane Lili – Rev. A (Project No. 503)	This project investigated the major classes of pipeline failure that resulted to GOM OCS facilities by Hurricane Lili in the fall of 2002. The project had four objectives: <ol style="list-style-type: none"> <li>1. investigate pipeline failures resulting from Hurricane Lili, including flowlines, major trunk lines, and platform risers from both fixed and floating production facilities;</li> <li>2. compare and contrast these failures with those reported from Hurricane Andrew;</li> <li>3. make specific recommendations for changes in design or operations guidelines that might prevent or mitigate such failures in the future; and</li> <li>4. suggest cost-effective methods for making existing pipelines designed by older guidelines less likely to fail in the future.</li> </ol>
Hurricane Andrew	
Study and Hindcast of Wind and Wave Fields for Hurricane Andrew (Project No. 193)	This study was a JIP to describe the evolution and distribution of the surface wind field and wave field in the northern GOM during Hurricane Andrew in August 1992. The hindcast used public domain meteorological and oceanographic measured data and the Oceanweather's most accurate cyclone wind and wave hindcast methods. The narrative report includes a description of the data sources, storm evolution (track and intensity), hindcast method and a summary of results.
Hurricane Andrew Calibration Study (Project No. 199)	This study was a JIP to collect information gained from platform failures and survivals during Hurricane Andrew and to develop a database for the future management of existing platforms. The MMS, through its Platform Verification Program, is responsible for a wide variety of functions related to the strength and integrity of offshore platforms. This project incorporates a "calibration" task that uses the outcome of Hurricane Andrew (survived, damaged, or failed platforms) to update and adjust, where necessary, current practices for assessing in-place offshore platforms. This calibrated approach could become part of a future API RP2A recommendation for assessing existing offshore platforms.
Performance of Safety and Pollution Control Devices in the Aftermath of Hurricane Andrew (Part of the Hurricane Andrew OCS Damage Assessment Program) (Project No. 203)	The objective of this project was to develop a reliability database that will increase the confidence in the methodology used to develop safety systems, thereby increasing the safety of offshore developments. The basis of achieving the objectives of this work was to secure the support of operators associated with MMS to ease the gathering of data related to the performance of safety and pollution control devices within the offshore environment. These data were collated into a computer database and used as input to the review of reliability assessment methodology and the performance of test case analysis.
Post Mortem Platform Failure Evaluation Study (Project No. 204)	This study was a JIP that used the results of Hurricane Andrew to evaluate engineering methods for predicting platform failure or survivability by comparing screening analysis and/or detailed failure analysis against actual field data (i.e., platforms that were exposed to Andrew and either survived, collapsed, or were damaged). In addition, the study also examined the concept of a formal Offshore Platform Evaluation System as a management information system.
Shallow Water Wave and Current Field Study (Project No. 206)	The study provides a comprehensive and reliable database of environmental data in shallow-water (as well as offshore) areas affected by Hurricane Andrew through the implementation and application of advanced numerical wave and current hindcast models. The models adopted were previously applied and validated against historical GOM hurricanes. These were carefully checked and recalibrated against available data acquired in Hurricane Andrew.
API/Hurricane Foundation Study (Project No. 207)	The study is a JIP to develop separate bias factors for evaluation of pile foundations of GOM offshore steel jackets based upon their performance during Hurricane Andrew. Some similarly limited studies were performed for caisson structures. The purpose of the study is to evaluate possible conservatism in the current API RP2A foundation design recipe.

Development of Acceptance Criteria for Caisson Structures Damaged during Hurricane Andrew (Project No. 209)	Approximately 100 caisson structures were tilted during Hurricane Andrew. The objective of this study was to develop an acceptance criteria for those tilted structures and to develop guidelines for straightening those structures that did not meet the criteria.
Hurricane Andrew Effects on Offshore Platforms (Project No. 210)	This study was a JIP to inspect and analyze three Chevron platforms in their South Timbalier field. Two structures survived Hurricane Andrew; the other toppled during the hurricane. The objective of the study was to compare analytical predictions with actual field performance, with particular emphasis on individual members and platform system failures. This assessment provided information in developing guidelines to be incorporated into API RP2A.
Dynamic Nonlinear Loading Effects on Offshore Platforms (Project No. 224)	The project's objective was to conduct parametric studies of the dynamic response of reduced degrees of freedom nonlinear systems and to determine how the results from simplified nonlinear capacity analysis relate to the results from complex time-domain analysis of the performance of platforms in extreme condition storms. Observed platform performances during recent hurricanes (e.g., Andrew, Camille, Betsy, and Hilda) were used to verify the analysis. Engineering guidelines were developed to define dynamic nonlinear loading-capacity effects on the overall performance characteristics of platforms.
Hurricane Andrew Effects on Offshore Platforms (Phase II - JIP) (Project No. 229)	The study was a JIP. Phase I was a calibration task to study the effects of Hurricane Andrew on platforms (i.e., survived, damaged, or failed). The outcomes were used to update current practices for assessing the ability of in-place platforms to withstand hurricanes. This calibration approach became part of API's RP2A standard for assessing existing offshore platforms.

## **REFERENCES**

## REFERENCES

- Anderson, C.M. 2006. Personal communication. U.S. Dept. of the Interior, Minerals Management Service, Herndon, VA. June and August.
- Anderson, C.M. and R.P. LaBelle. 2000. Update of comparative occurrence rates for offshore oil spills. *Spill Science and Technology Bulletin* 6(5/6):302-321.
- Barrett, D. 2005. Sector note. The Offshore Supply Boat Sector. Fortis Bank.
- Baumann, R.H. and R.E. Turner. 1990. Direct impacts of outer continental shelf activities on wetland loss in the central Gulf of Mexico. *Journal Environmental Geology* 15(3):189-198, May 1990.
- Brooks, J.M., ed. 1991. Mississippi-Alabama continental shelf ecosystem study: Data summary and synthesis. Volume I: Executive summary and Volume II: Technical summary. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 91-0062 and 91-0063. 43 and 368 pp.
- C & C Technologies, Inc. 1996. Internet image.
- Dickey, D. 2006. Personal communication. U.S. Dept. of Transportation, Coast Guard. Headquarters Office of Compliance and Analysis. Washington D.C. June 28, 2006.
- Gardner, J. 2000. Unpublished image.
- Gulf of Mexico Fishery Management Council (GMFMC). 2004. Final environmental impact statement for the generic essential fish habitat amendment to the following fishery management plans of the Gulf of Mexico: Shrimp fishery of the Gulf of Mexico, red drum fishery of the Gulf of Mexico, reef fish fishery of the Gulf of Mexico, stone crab fishery of the Gulf of Mexico, coral and coral reef fishery of the Gulf of Mexico, spiny lobster fishery of the Gulf of Mexico and south Atlantic; coastal migratory pelagic resources of the Gulf of Mexico and south Atlantic. Available on the GMFMC Internet website: <http://www.gulfcouncil.org/>.
- Herbert, P.J., J.D. Jarrell, and M. Mayfield. 1992. The deadliest, costliest, and most intense United States hurricanes of this century (and other frequently requested hurricane facts). U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Hurricane Center, Coral Gables, FL. NOAA Tech. Memo. NWS NHC-31, updated February 1992. 40 pp.
- Hummell, R.L. 1990. Main Pass and the ebb-tidal delta of Mobile Bay, Alabama. Geological Survey of Alabama, Energy and Coastal Geology Division, Circular 146.
- Louis Berger Group, Inc. 2004. OCS-related infrastructure in the Gulf of Mexico fact book. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2004-027. 234 pp.
- National Ocean Economics Program. 2006. Oil & gas production. Internet website: [http://noep.csumb.edu/Minerals/oil\\_gas.asp](http://noep.csumb.edu/Minerals/oil_gas.asp). Accessed September 11, 2006.
- National Research Council (NRC). 2003. Oil in the sea III: Inputs, fates, and effects (Committee on Oil in the Sea: J.N. Coleman, J. Baker, C. Cooper, M. Fingas, G. Hunt, K. Kvenvolden, J. McDowell, J. Michel, K. Michel, J. Phinney, N. Rabalais, L. Roesner, and R.B. Spies). Washington, DC: National Academy Press. 265 pp.
- Penland, S. and J.R. Suter. 1989. The geomorphology of the Mississippi River Chenier Plain. *Marine Geology* 90:231-288.
- Rabalais, N.N., R.E. Turner, and D. Scavia. 2002. Beyond science into policy: Gulf of Mexico hypoxia and the Mississippi River. *BioScience* 52:129-142.
- Rezak, R. and T.J. Bright. 1981. Northern Gulf of Mexico topographic features study. Final report to the BLM, contract no. AA551-CT8-35. College Station, TX: Texas A&M Research Foundation and



- Texas A&M University, Dept. of Oceanography. 5 vols. Available from NTIS, Springfield, VA: PB81-248635.
- Rezak, R., T.J. Bright, and D.W. McGrail. 1983. Reefs and banks of the northwestern Gulf of Mexico: their geological, biological, and physical dynamics. Final Technical Report No. 83-1-T.
- U.S. Dept. of the Army. Corps of Engineers. 2006. Waterborne commerce of the United States: Calendar year 2004. Part 2—Waterways and harbors Gulf Coast, Mississippi River System and Antilles.
- U.S. Dept. of Commerce. Bureau of the Census. 2006. County business patterns. EPCD. Internet website: <http://www.census.gov/epcd/cbp/view/cbpview.html>. Accessed December 15, 2006.
- U.S. Dept. of Commerce. National Marine Fisheries Service. 2006. Marine recreational fisheries statistics survey, Gulf of Mexico. Internet website: <http://www.st.nmfs.gov/st1/recreational/index.html>. Accessed September 15, 2006.
- U.S. Dept. of Commerce. National Oceanic and Atmospheric Administration. 1961-1986. Environment Data Service, National Climate Center.
- U.S. Dept. of Commerce. National Oceanic and Atmospheric Administration. 1988. Tide tables, east coast of North and South America. U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration.
- U.S. Dept. of Commerce. National Oceanic and Atmospheric Administration. National Hurricane Center. 2001. Internet website: <http://www.nhc.noaa.gov>. Accessed December, 2001.
- U.S. Dept. of Commerce. National Oceanic and Atmospheric Administration. National Hurricane Center. 2005. 2005 Atlantic hurricane season. Internet website: <http://www.nhc.noaa.gov/2005atlan.shtml>. Accessed February 3, 2006.
- U.S. Dept. of Commerce. National Oceanic and Atmospheric Administration. National Ocean Service. 2006. National survey on recreation and the environment (NSRE). Internet website: <http://marineeconomics.noaa.gov/NSRE/welcome.html>. Accessed August 30, 2006.
- U.S. Dept. of Energy. Energy Information Administration. 2006. Internet website: [http://www.eia.doe.gov/oil\\_gas/petroleum/info\\_glance/petroleum.html](http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html). Accessed September 11, 2006.
- U.S. Dept. of Labor. Bureau of Labor Statistics. 2006. Labor market statistics prior to disaster for areas affected by Hurricanes Katrina and Rita. Internet website: <http://www.bls.gov/katrina/data.htm#5>. Accessed June 15, 2006.
- U.S. Dept. of the Interior, Fish and Wildlife Service and U.S. Dept. of Commerce, Bureau of the Census. 2001. National survey of fishing, hunting, and wildlife-associated recreation. Internet website: <http://www.census.gov/prod/2002pubs/FHW01.pdf>. Issued October 2002. FHW/01-NAT. 170 pp.
- U.S. Dept. of the Interior. Minerals Management Service. 2006a. Spills  $\geq$  50 barrels. Internet website: <http://www.mms.gov/incidents/pollution.htm>. Updated August 11, 2006.
- U.S. Dept. of the Interior. Minerals Management Service. 2006b. Technical Information Management System. Produced water. April 19, 2006.
- U.S. Dept. of the Interior. Minerals Management Service. 2006c. Technical Information Management System. Pipelines.
- U.S. Dept. of Transportation. Coast Guard. 2001. Polluting incident compendium: Cumulative data and graphics for oil spills, 1973-2000. Internet website: <http://www.uscg.mil/hq/g-m/nmc/response/stats/summary.htm>.
- U.S. Dept. of Transportation. Coast Guard. 2006. Pollution incidents in and around U.S. waters: A spill/release compendium, 1969-2001. Internet website: <http://www.uscg.mil/hq/g-m/nmc/response/stats/aa.htm>. Accessed September 11, 2006.

- U.S. Environmental Protection Agency. 2005. Ozone nonattainment state/area/county report, September 29, 2005. Internet website: <http://www.epa.gov/oar/oaqps/greenbk/gncs.html>.
- Waring, G.T., R.M. Pace, J.M. Quintal, C.P. Fairfield, and K. Maze-Foley, eds. 2004. U.S. Atlantic and Gulf of Mexico marine mammal stock assessments - 2003. NOAA Tech. Memo. NMFS-NE-182. 287 pp.
- White, W.A., T.R. Calnan, R.A. Morton, R.S. Kimble, T.G. Littleton, J.H. McGowen, and H.S. Nance. 1989. Submerged lands of Texas, Port Lavaca area: Sediments, geochemistry, benthic macroinvertebrates, and associated wetlands. University of Texas at Austin, Bureau of Economic Geology, Austin, TX.
- Wilson, D.L., J.N. Fanjoy, and R.S. Billings. 2004. Gulfwide emission inventory study for the regional haze and ozone modeling efforts: Final report. U.S. Dept. of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study 2004-072. 273 pp.
- Woods and Poole Economics, Inc. 2006. The 2006 complete economic and demographic data source (CEDDS) on CD-ROM.



### The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.



### The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.