# The Benefits of Continued and Expanded Investments in the Port of Venice





David E. Dismukes, Christopher Peters, and Kathryn Perry

www.enrg.lsu.edu/portofvenice

The Port of Venice is commonly referred to as the "Gateway to the Gulf" and is one of the region's premier oil and gas service bases. Continued investments in the Port will yield significant returns for regional and state economic development.

While Venice's economic future is bright, failure to make adequate dredging investments in Baptiste Collette Bayou, Tiger Pass, and South Pass will weigh like an anchor on the Port's continued growth and expansion, which in turn, will have implications for local and state economic development opportunities.

Venice is the closest, and perhaps best-positioned Louisiana port to service offshore oil and gas activities in the Eastern Gulf of Mexico. Anticipated Eastern GOM drilling and production activities could do for Venice what deepwater oil and gas exploration in the 1990s did for Port Fourchon. Dredging investments in Venice would position Louisiana to have not one (Fourchon), but two world-class offshore oil and gas service ports.

Venice is in close proximity to the prolific offshore producing areas of the Central GOM (New Orleans OCS District), an area responsible for over 50 percent and 45 percent of total federal offshore oil and gas production, respectively.

Venice also services inland water and offshore state production activities in southeastern Louisiana. This region accounts for over \$100 million in annual mineral revenues, and since 2003, has contributed over \$1.9 billion in state mineral revenues.

Port tenants reported 2008 operating revenues of over \$264 million with gross earnings of over \$117 million. In 2009, Port tenants expect a decrease in annual operating revenues to \$241 million and gross profits of \$94 million.

In 2008, Port tenants invested over \$117 million in capital improvements and are anticipated to increase those annual investments to \$188 million in 2009 despite decreasing oil and gas prices.

The local economic impacts of Port capital investments range from \$103.54 million to \$132.62 million over the past two years, while marine vessel investments made by port tenants are estimated to have contributed between \$96.20 million to \$167.54 million over the last two years to the Louisiana economy.

Annual operations at the Port are estimated to have contributed about \$392 million to the local and regional economy over the past two years.

The businesses located at the Port are estimated to have created between 513 and 737 jobs in construction activities over the past two years as well as having stimulated between 540 to 945 Louisiana jobs through their marine vessel investments.

Construction activities at the Port are estimated to have contributed \$25.38 million and \$36.56 million in wages in 2008 and 2009, respectively. Marine vessel investments are anticipated to have stimulated \$29 million and \$51 million in wages for the entire state in 2008 and 2009, respectively.

Annual operations at the Port are estimated to support over 870 jobs per year averaging around \$45 million in annual wages.

The future outlook for the Port is considerable, provided appropriate dredging investments in Baptiste Collette Bayou, Tiger Pass, and South Pass are made. The Port is well positioned to support ongoing OCS production including some emerging deepwater plays, future Eastern GOM production, and offshore LNG regasification facility development.

The Center for Energy Studies appreciates the financial support provided by the Venice Port Coalition, Inc. in support of this research project.

Additional research and survey collection support was provided by Siddhartha Narra, Jordan Gilmore, Elizabeth Dieterich, Johanna Rushing, Jamie Dismukes, and Kolby St. Germain.



1

### Introduction

An overview of the Port of Venice

The importance of the Port of Venice to Federal Oil and Gas Production

The importance of the Port of Venice to State Oil and Gas Production

**Description of the Port of Venice Economy** 



Called the "Gateway to the Gulf", the Port of Venice is one of the oil and gas industry's premier energy service bases.

The Port of Venice is a multi-purpose facility that services the offshore oil and gas industry in both federal and state waters. The Port is also home to a large number of commercial and recreational fishing vessels.

The Port has multiple access channels that include Baptiste Collette Bayou, Tiger Pass, South Pass, as well as the Mississippi River.

**Louisiana Port Locations** 

Introduction Locations of Louisiana ports including the Port of Venice



**Primary Access Channels** 

#### Introduction

Port of Venice primary access channels

### **Port of Venice Primary Access Channels**





Services Offered by Port of Venice Companies

Survey analysis and results

14%

Services offered by companies related to the Port of Venice

#### **Port of Venice Services** Commercial fishing Anchor placing 3% Drilling 2% Other supplies/fluids Crew 4% 9% **Transportation** Specialty 11% supplies 6% **Rig towing** 6% Maintenance Food/Water services 15%

**Fuel** 

13%



Construction

support

17%



**Revenues by Activity** 

Survey analysis and results Revenues by activity



1

### Introduction

An overview of the Port of Venice



The importance of the Port of Venice to Federal Oil and Gas Production

The importance of the Port of Venice to State Oil and Gas Production

**Description of the Port of Venice Economy** 

**New Orleans Outer Continental Shelf District** 

Introduction New Orleans OCS District Map

The Port of Venice is an important service base for federal oil and gas production within the New Orleans OCS District of the GOM. The Port of Venice is uniquely positioned to take advantage of continued growth in this district as well as new potential eastern GOM production opportunities.



**New Orleans Outer Continental Shelf** 

Introduction New Orleans OCS District Map



Introduction

**New Orleans OCS District Oil Production** 

### **New Orleans OCS District Oil Production**



The Port of Venice is an important service base for federal production in the New Orleans OCS District in the GOM. This area is one of the most prolific federal offshore producing areas, with average annual oil production of about 200 million barrels ("MMBbls"). The overall production shares from the federal areas around the Port of Venice have been increasing each year since the mid-1990s and now account for 50 percent of all OCS production that is serviced, or could be serviced, by activities originating at the Port of Venice.

Introduction

**New Orleans OCS District Gas Production** 

### **New Orleans OCS District Gas Production**



The Port of Venice is also an important service base for supporting oil and gas drilling and production activities in the New Orleans OCS District. Natural gas production from the New Orleans OCS District has been increasing dramatically since the early 1990s. Prior to Hurricane Katrina, this area was producing in excess of 1.2 Tcf per year. Today, this area accounts for 43 percent of all Gulf of Mexico natural gas production.

1

### Introduction

An overview of the Port of Venice

The importance of the Port of Venice to Federal Oil and Gas Production

The importance of the Port of Venice to State Oil and Gas Production

**Description of the Port of Venice Economy** 

#### **Active Offshore State Gas and Oil Wells**

Introduction Active offshore State of Louisiana-jurisdictional oil and gas wells



The importance of the Port of Venice to State oil and gas production

Plaquemines Parish oil production



Oil production from state waters surrounding the Port of Venice has been declining, but has remained stable, and even increased, as a share of total state production over the past several years. Prior to Hurricane Katrina, state oil production from nearby areas surrounding the Port of Venice was close to 1.5 MMBbls per month, or 18 MMBbls per year.

The importance of the Port of Venice to State oil and gas production

**Plaquemines Parish gas production** 

#### **Plaquemines Parish Gas Production**



Natural gas production from the region serviceable by the Port of Venice has been declining, however, as a percentage of total state natural gas production. Prior to hurricanes Katrina and Rita, the region was producing over 105 Bcf per year.

#### **Severance Revenues by Parish**

The importance of the Port of Venice to State oil and gas production

**Regional severance revenues** 



The Port of Venice is a major facilitator of state revenues since regional production that is serviced, or serviceable, by the Port of Venice contributes more in severance revenues than any other parish in the State. The ability of the State to support its overall mineral revenues is a function, in part, of regional production facilitated by the Port of Venice.

Source: Louisiana Department of Natural Resources, Louisiana Department of Revenue Note: Severance contribution is total for oil and gas from July 2007 through June 2008.

#### **Severance Revenues**

The importance of the Port of Venice to State oil and gas production

Regional severance revenues from state production

#### **Regional Severance Revenues from State Production**



Regional severance revenues generated by production near the Port of Venice have grown dramatically over the past ten years. Since 2006, regional severance revenues from this area of the state have averaged over \$100 million per year and account for roughly 20 percent of state totals. The Port of Venice plays an important role facilitating state severance revenue growth.

The importance of the Port of Venice to State oil and gas production

**Regional royalties revenues** 

#### **Regional Royalty Revenues from State Production**



Regional state oil and gas production supported in large part by the Port of Venice makes a large contribution to state royalty revenues. The region has contributed over \$100 million per year since 2000, or over one- third of all annual state royalty revenues. This production is an important source of state revenue that is supported by Port of Venice activities.

The importance of the Port of Venice to State oil and gas production

Millions

Plaquemines Parish total mineral revenues versus total State of Louisiana

#### Plaguemines Parish Total Mineral Revenues versus Total State of Louisiana Mineral Revenues \$2,500 100% State Mineral Revenue 90% Plaguemines Mineral Revenues \$2.000 80% Plaquemines as a Percent of Total 70% 60% \$1,500 50% \$1,000 40% 30% \$500 20% 10% \$0 0% 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

Regional oil and gas production generated from areas surrounding the Port of Venice is an important source of wealth and revenue creation for Louisiana. In 2008, oil and gas production from these areas, serviced in large part by the Port, contributed over one-half of a billion dollars in state revenues. Since 2003, regional production has contributed more than \$1.9 billion dollars in state mineral revenues – more than any other parish in the State. Thus, investments made in the Port of Venice are akin to making investments in state revenue growth.

Percent of Total State Mineral Revenues

1

### Introduction

An overview of the Port of Venice

The importance of the Port of Venice to Federal Oil and Gas Production

The importance of the Port of Venice to State Oil and Gas Production

**Description of the Port of Venice Economy** 

#### **Oil and Gas Extraction and Support Employment**

Description of the Port of Venice Economy

Employment (Jobs)

Plaquemines Parish oil and gas sector(s) employment

#### **Plaquemines Oil and Gas Extraction and Support Employment**



Regional oil and gas employment is comprised of an annual average of about 2,500 high paying jobs, and accounts for about 16 percent of the total oil and gas extraction and support-related employment in the state. The Port of Venice directly supports many of these oil and gas jobs.

Percent of Total Employment

Description of the Port of Venice Economy

Average yearly wages, oil and gas industry

### **Average Annual Wages**



Oil and gas employment that is supported by the Port of Venice is a significant contributor to regional household wealth. Oil and gas jobs supported by the Port of Venice pay considerably higher-than-average wages.

Average Yearly Wages, all sectors compared to Port related industries

Description of the Port of Venice Economy

Average yearly wages, all sectors compared to Port related industries

### Average Yearly Wages, All sectors compared to Port Related Industries



Port-related jobs are also high paying relative to the regional economy. Continued expansion of the Port of Venice will help facilitate the creation of a greater number of these high-paying positions.

### 2

### Economic Impact Study Methodology

#### **Overview**

Survey data and analysis

Ship tracking data and analysis

Economic impact modeling and analysis



Economic Impact Study Methodology

Overview

The purpose of this study is to estimate the benefits of the Port of Venice.

The benefits were estimated using three approaches:

### 1. Survey data and analysis

The Center for Energy Studies developed and administered a survey to collect data from companies located at, or associated with the Port. Direct mail was initially used with subsequent follow up through telephone and electronic mail.

### 2. Ship tracking data and analysis

A real-time ship tracking software tool was used to track and collect data on marine traffic associated with the Port.

### 3. Economic impact modeling and analysis

Survey data, along with vessel-tracking information was used to estimate direct impacts associated with the Port. Missing information was estimated from survey data to develop a complete picture of Port economic activities.

An economic input / output model was used to model and predict the current and future economic benefits of the Port.

Overview

Economic Impact Study Methodology

Survey data collection and analysis

The Center for Energy Studies developed and executed a survey to collect data on twenty four different economic and operational factors, including, but not limited to:

- Gross Revenues
- Operating Expenses
- Annual Capital Investment
- Total Number of Employees

The Center for Energy Studies also collaborated with Port authorities, industry, and tenants that are either located at the port, or who utilize the Port on a regular basis. This collaboration yielded a diverse and comprehensive view of Port activity.

The survey was sent to 130 entities that were either tenants or users of the Port of Venice, with a 25 percent overall response rate and a response rate of 40 percent from tenants.

Economic Impact Study Methodology

Ship data collection and analysis

The Center for Energy Studies utilized a commercial ship tracking system and database (ShipTracks) on a real-time basis.

ShipTracks is a computer-based electronic charting and tracking system used to manage marine traffic and private assets on a global basis. The tracking system is measured in real-time and is based on transmissions sent every few seconds from the on-board AIS (automatic identification system) hardware, a safety and security requirement for commercial vessels over 300 gross tons operating in the U.S. The ShipTracks network of AIS receivers collects and displays over 20,000 vessel reports per minute allowing real-time and historic views of marine traffic.

The Center conducted repeated samples of this real-time information in order to estimate vessel traffic patterns going to, from, and through the Port. This process included close examination of originating and terminating trip destinations.



ShipTracks collects data in real-time on numerous variables associated with marine vessels in the Gulf of Mexico. Including: vessel name; location (latitude and longitude); velocity; destination; call sign; type of ship and cargo; length; breadth; and gross tonnage.

The Center for Energy Studies used ShipTracks to record information on vessels traveling to and from the Port. State water and deep water locations approximating the MMS's New Orleans Federal OCS District were tracked for marine vessel traffic.

Measuring marine vessel traffic data, in conjunction with prevailing offshore service vessel day rates, enabled CES to quantify vessel movements into, out of, and through the Port. This analysis also included an examination of originating and terminating locations for various marine vessel trips to oil and gas production structures in both state and federal waters.

**Economic Impact Study Methodology** 

Ship data collection and analysis

ShipTracks screenshot of the Gulf of Mexico



RACKS



Economic Impact Study Methodology

Economic impact modeling and analysis

The Center also quantified the economic benefits of the Port utilizing traditional input / output modeling approaches. The direct impacts were decomposed into two parts:

- 1. The actual and anticipated capital (infrastructure) investments by the Port and its tenants. These infrastructure investments are in the form of:
  - Capital improvement investments (e.g. buildings, slip improvements, loading equipment, etc.).
  - Marine vessel investments.
- 2. The actual and anticipated operating expenditures made by Port tenants in their day-to-day business activities.

These direct impacts were coupled with CES-developed Louisiana-specific energy drivers, to estimate total and sector specific direct, indirect, and induced impacts.

Economic Impact Study Methodology

Economic impact modeling and analysis, continued.

Economic impacts were estimated for both the State and local economy. Survey results identifying infrastructure investments, marine vessel investment, and annual operating expenses were utilized as drivers or "direct" impacts.

An economic impact, such as a port infrastructure investment, reverberates throughout a local economy. Direct impacts create positive indirect impacts in secondary businesses supporting Port or Port-related activities. These business activities create an additional round of induced economic activity that arise from the expenditure of salaries created by the direct and indirect jobs. Combined, these indirect and induced impacts are referred to as "multiplier effects" within a given economy. A diagram of these relationships is provided on the following page.

Economic impacts created by the Port were estimated for output, employment, and wages.

All data was standardized (adjusted for inflation) to 2009 dollars.
Economic Impact Study Methodology

**Economic impact model** 



### 3

### **Survey Analysis and Results**

Survey respondents

The importance of dredging primary access channels to the Port

**Employees and locations** 

The big picture

Survey analysis and results

Survey respondents

- Survey mailed to 130 Venice-area contacts.
- General business, vessel trip, and services questions asked.
- Follow-up calls and emails.
- 39 surveys received (30 percent of total surveys).
- Response rate was 58 percent for on-site tenants (19 of 33).

#### **Survey Respondents**

**Baker Hughes Drilling Fluids** Bonvillian Marine **BP** America **Century Exploration** Chevron Comar Mainre Corp. Cox Operating, LLC **Cvitanovic Boat Services** Cypress Cove Marina D&C Seafood Inc. **Daybrook Fisheries** Denet Towing **Environmental Operators** Fab-Con, Inc. Grand Isle Shipyard Halliburton Harvest Oil and Gas, Inc. John W. Stone Oil Distributors L&L Oil and Gas Service

Laborde Marine, LLC. Loop, LLC. Louisiana Oilfield Divers Madere & Sons Towing Martin-Marks Operating Co. McMoran Oil and Gas Medco Newman Crane Services **Newpark Environmental Services Offshore Cleaning Systems OMNI Energy Services** Premier Industries **Production Management Industries** Rene Cross Construction Sharko Seafood Stone Energy Tanks a Lot Tetra Oil and Gas Service US Liquids of LA Whitetail Oilfield Services, LLC



Port usage and economic activity is highly related to its accessibility.

The Port of Venice is primarily accessed by the Mississippi River and a number of channels connected to the river. It is this optionality that is highly valued by current and prospective tenants.

The response to this survey question indicates a strong likelihood of increased economic activity should all channels be dredged in the future. In other words, there is high perceived economic value from the optionality created from dredging all three channels.

Survey analysis and results

Employees and locations

Many Port of Venice businesses are branch locations of larger companies.

The most common GOM port locations used by parent companies, not including the Port of Venice, are Port Fourchon, Morgan City, Cameron, and Intracoastal City, LA

Is Venice your primary or secondary facility?			
Primary	11		
Secondary	16		
Neither Port user nor tenant	5		



**Premier Industries** 





Survey analysis and results

Gross revenues, operating expenses, and capital investment at the Port of Venice

2008 was an exceptionally successful year for the Port of Venice. Total operating revenues for tenants of the Port were close to \$265 million, with an implied gross earnings of \$117.75 million.

Survey respondents anticipate a decrease in both annual operating revenues and earnings in 2009 due to recent declines in oil and gas commodity prices.

Interestingly, survey respondents continue to have a positive long-run outlook for the Port of Venice by indicating a 60 percent increase in anticipated capital investments in 2009.

Survey respondents expect to increase their Port investments from a 2008 level of \$52.32 million to a 2009 level of \$75.36 million – an increase of \$23.04 million.

Survey respondents also expect to increase their marine vessel investments from a 2008 level of \$65.04 million to a 2009 level of \$112.79 million – an increase of \$47.75 million.

ltem	Venice Total (\$ millions)
2008	
Gross revenues	\$264.46
Operating expenses	\$146.71
Port infrastructure investment	\$52.32
Marine vessel investment	\$65.04
Total Capital investment	\$117.36
2009	
Gross revenues	\$241.93
Operating expenses	\$146.61
Port infrastructure investment	\$75.36
Marine vessel investment	\$112.79
Total Capital investment	\$188.15

### 4

### **Ship Analysis and Results**

Number of trips

Trips by vessel type

Trips by registered port

Areas traveled to by vessels using the Port of Venice

**Economic Impact Analysis and Results** 

Ship analysis and results

Vessel trips into and out of the Port of Venice by Day

#### The Daily Number of Vessel Trips into and out of the Port of Venice by Day





Source: estimated from ShipTracks, Center for Energy Studies Survey



#### Estimated Average Trips per Vessel Type (June 2009)



Source: estimated from ShipTracks, Center for Energy Studies Survey



#### **Trips by Registered Port**





Source: ShipTracks, US Coast Guard Documentation Center, Center for Energy Studies



**Commercial and Industrial Construction Economic Impacts** 

Economic Impact Analysis and Results

Infrastructure investment

Port Infrastructure Investment Impacts

# Local Economy Impacts

Port Infrastructure Investment Impacts (\$ million)	2008	2009
Output		
Direct	\$52.32	\$75.36
Indirect	\$11.13	\$16.02
Induced	\$2.60	\$3.75
Total	\$66.05	\$95.13
Employment		
Direct	419	603
Indirect	70	100
Induced	23	34
Total	512	737
Wages		
Direct	\$21.69	\$31.24
Indirect	\$3.04	\$4.38
Induced	\$0.65	\$0.93
Total	\$25.38	\$36.56

The Port of Venice is a growing port, and infrastructure development is a large part of its economic activity.

In order to analyze the economic impact of activities at the Port, each specific type of activity was identified and quantified via surveys. These impacts were used as an input into an input/output model, and categorized by direct, indirect, and induced impacts.

"Direct impacts" represent the direct purchases by the Port and its constituent businesses.

"Indirect impacts" represent the second round of purchases by intermediate businesses.

"Induced impacts" represent an additional round of economic impacts via household spending that would not have occurred without the direct and indirect activity associated with the Port.

The total economic impacts associated with infrastructure development are estimated to be \$66.05 and \$95.13 million for 2008 and 2009, respectively. Total jobs associated with infrastructure development are estimated to be 512 and 737 for 2008 and 2009, respectively. Wages associated with infrastructure development are estimated to be \$25.38 and \$36.56 million for 2008 and 2009, respectively.



Infrastructure investment at the Port of Venice is estimated to support 512 to 737 total local jobs in 2008 and 2009, respectively. The majority of these jobs were (are) in construction-related sectors. Retail and service sector jobs were about 16 percent of the total jobs created by infrastructure investment at the Port.



Economic Impact Analysis and Results

Marine vessel investment impacts

#### **Total State Economy Impact**

Marine Vessel	NPV Total		
Investment Impacts (\$ million)	2008 200		
Output			
Direct	\$65.04	\$112.79	
Indirect	\$15.62	\$27.81	
Induced	\$15.54	\$26.95	
Total	\$96.20	\$167.55	
Employment			
Direct	273	474	
Indirect	120	210	
Induced	147	257	
Total	540	941	
Wages			
Direct	\$20.84	\$36.15	
Indirect	\$4.55	\$7.86	
Induced	\$4.16	\$7.20	
Total	\$29.55	\$51.21	

Much of the activity at the Port of Venice is in the direct investment in marine vessels and marine vessel equipment, which varied between \$65.04 and \$167.55 million in 2008 and 2009.

While the community of Venice does not see the majority of the impacts from marine vessel construction and equipment activities, the State of Louisiana benefits significantly.

Total economic impacts for Louisiana that are created by Venice marine vessel investments range between \$96.20 to \$167.55 million in 2008 and 2009.

Venice marine vessel investments stimulated between 540 to 941 jobs for a total of \$29.55 and \$51.21 million in wages in 2008 and 2009, respectively.



Marine vessel investment supported 540 and 941 jobs statewide in 2008 and 2009, respectively. Jobs associated with marine vessel investment are distributed broadly throughout the state economy. About 50 percent of the total jobs supported were in the ship and boat building sector. The remainder of jobs supported were in the retail and service sectors (about 42 percent) and industrial, transportation, and agriculture sectors (about 7 percent).

5



Infrastructure Investment

Marine Vessel Investment

Annual Operations

**Total Impacts** 

Economic Impact Analysis and Results Annual Operations

Total economic activity generated from annual operations at the Port of Venice contributed between \$196.82 to \$196.87 million in 2008 and 2009, respectively.

Port of Venice annual operations and maintenance expenses stimulated between 876 and 905 total jobs in 2008 and 2009, respectively.

The Port of Venice creates economic activity that has been estimated to have supported \$45.49 and \$45.64 million in employee wages, in 2008 and 2009, respectively.

#### **Local Economy Impacts**

Annual Operations		
(\$ millions)	2008	2009
Output		
Direct	\$146.71	\$146.61
Indirect	\$45.58	\$45.70
Induced	\$4.53	\$4.56
Total	\$196.82	\$196.87
Employment		
Direct	402	404
Indirect	316	328
Induced	158	173
Total	876	905
Wages		
Direct	\$28.32	\$28.10
Indirect	\$13.40	\$13.56
Induced	\$3.77	\$3.98
Total	\$45.49	\$45.64



About 60 percent of all annual operations jobs related to the Port of Venice are directly related to the oil and gas industry. 27 percent of the jobs created by annual operations are associated with retail and service sector and 13 percent are in a combination of the industrial and/or transportation sectors.

### 5

### **Economic Impact Analysis and Results**

Infrastructure Investment

Marine Vessel Investment

**Annual Operations** 

Total Impacts

Economic Impact Analysis and Results

All impacts

Total economic output

Investment in infrastructure development at the Port of Venice was responsible for an estimated local economic impact of \$66.05 and \$95.13 million in 2008 and 2009, respectively.

Marine vessel investment associated with activity at the Port of Venice is estimated to have contributed \$37.49 million in economic activity to the local economy in 2008 and 2009, respectively. Concurrently, marine vessel investment also contributed \$58.71 and \$130.05 million to the rest of the State beyond the local economy in 2008 and 2009, respectively.

The economic impacts of annual operations activity is estimated to have contributed \$196.82 and \$196.87 million in total economic output in 2008 and 2009, respectively.

The Port of Venice is estimated to have supported \$300.6 and \$329.49 million in local economic output in 2008 and 2009, respectively. The Port is estimated to have supported \$58.71 and \$130.05 million in economic output in the rest of the state during 2008 and 2009, respectively.

Total Economic Output				
	Lo	Local		State
(\$ Million)	2008	2009	2008	2009
Infrastructure Development				
Direct	\$52.32	\$75.36		
Indirect	\$11.13	\$16.02		
Induced	\$2.60	\$3.75		
Subtotal	\$66.05	\$95.13		
Marine Vessel Investment				
Direct	\$32.22	\$32.22	\$32.82	\$80.57
Indirect	\$4.12	\$4.12	\$11.50	\$23.68
Induced	\$1.15	\$1.15	\$14.39	\$25.80
Subtotal	\$37.49	\$37.49	\$58.71	\$130.05
Annual Operations				
Direct	\$146.71	\$146.61		
Indirect	\$45.58	\$45.70		
Induced	\$4.53	\$4.56		
Subtotal	\$196.82	\$196.87		
Total	\$300.36	\$329.49	\$58.71	\$130.05

#### Total Employment

Economic Impact Analysis and Results

All impacts

**Total employment** 

In 2008, 419 direct construction jobs were supported by Port infrastructure investment. 2009 saw a 44 percent increase in the level of jobs supported through this activity, or 603 jobs.

Port associated marine vessel investment supported 540 and 941 total jobs in 2008 and 2009, respectively. Year-over-year that is a 74 percent increase in the total number of jobs supported by marine vessel investment.

Marine vessel investment and ship building, in particular, supports a broad range of jobs, providing a significant economic benefit statewide.

The annual operations of companies associated with, or using, the Port of Venice supported 876 and 904 jobs in 2008 and 2009, respectively.

As a whole, the Port of Venice supported 1,558 and 1,811 local jobs, and 370 and 771 statewide jobs (in addition to the local economy), in 2008 and 2009, respectively.

Total Employment				
	Local		Rest of State	
(Jobs)	2008	2009	2008	2009
Construction and				
Investment in Improvements				
Direct	419	603		
Indirect	70	100		
Induced	23	34		
Subtotal	512	737		
Marine Vessel Investment				
Direct	31	129	144	345
Indirect	31	31	89	179
Induced	10	10	137	247
Subtotal	170	170	370	771
Annual Operations				
Direct	402	404		
Indirect	316	328		
Induced	158	173		
Subtotal	876	904		
Total	1,558	1,811	370	771

Economic Impact Analysis and Results All impacts

**Total wages** 

Infrastructure-related jobs at the Port is estimated to have contributed between \$25.38 and \$36.56 million in total wages in 2008 and 2009, respectively.

Marine vessel investment associated with the Port is estimated to have supported \$29.55 and \$51.21 million in total wages in 2008 and 2009, respectively.

Annual Port operations is estimated to have contributed between \$45.49 and \$45.63 million in total wages to the local economy in 2008 and 2009, respectively.

In total, the economic activity associated with the Port of Venice is estimated to have supported between \$100.42 and \$133.40 million in wages in 2008 and 2009, respectively.

Total Wages				
Total Wayes	Local		Rest of State	
(\$ Million)	2008	2009	2008	2009
Construction and				
Investment in				
Improvements				
Direct	\$21.69	\$31.24		
Indirect	\$3.04	\$4.38		
Induced	\$0.65	\$0.93		
Subtotal	\$25.38	\$36.56		
Marine Vessel Investment				
Direct	\$11.11	\$11.11	\$9.73	\$25.04
Indirect	\$1.35	\$1.35	\$3.20	\$6.51
Induced	\$0.29	\$0.29	\$3.87	\$6.91
Subtotal	\$12.75	\$12.75	\$16.80	\$38.46
Annual Operations				
Direct	\$28.32	\$28.10		
Indirect	Ψ20.32 \$13.40	\$13.56		
Induced	\$13.40 \$3.77	\$13.30 \$2.08		
Subtotal	\$ <u>45</u> <u>10</u>	\$ <u>45.63</u>		
Gubiotai	ψτυ.49	ψτυ.υυ		
Total	\$83.62	\$94.94	\$16.80	\$38.46

6

### Future Outlook and Opportunities

**Continued expansion of Port of Venice activities** 

**Eastern Gulf of Mexico potential** 

**Continued deepwater production** 

**Minerals Management Service lease sales** 

Oil and gas companies' proximity analysis

**Approved Liquefied Natural Gas terminals** 

**Future Outlook** 



Future Outlook and Opportunities

Continued expansion of Port activities

The Port of Venice has experienced significant growth over the past several years. The economic output and job growth experienced in 2008, and that expected for 2009 is substantial. Gross revenues are estimated to be \$264.46 million in 2008 compared to \$241.93 in anticipated revenues in 2009, a 9 percent decrease despite a 27.7 percent decrease in the price of crude oil and a 53.1 percent decrease in the price of natural gas. Interestingly, survey respondents and CES estimates indicate that tenants planned \$188.15 million in capital investment in 2009, compared with \$117.36 million in 2008. This indicates that tenants feel the long term growth opportunity surrounding the Port remains positive.



About 73 percent of tenants have received inquiries for potential Eastern GOM activities.

Survey respondent:

"Venice holds potential to be the eastern GOM main port if improvements are made to allow deepwater vessels access."

Future Outlook and Opportunities

**Eastern Gulf of Mexico potential** 

In 2008, Congress did not vote to continue the oil and gas drilling moratoria along the Eastern Gulf of Mexico. Recent high side undiscovered technically recoverable resources estimates by MMS for the region include some 5.78 Bbbls of petroleum and 26.83 Tcf of natural gas. Low side estimates are 2.52 Bbbls of petroleum and 17.55 Tcf of natural gas.

MMS' most recent (draft) five year plan anticipates 3 lease sales in the Gulf of Mexico Region.



Future Outlook and Opportunities

**Continued deepwater production** 

Deepwater wells off coastal Louisiana, Mississippi, and Alabama, many serviceable, or potentially serviceable, by the Port of Venice and other coastal Louisiana, Mississippi and Alabama ports, have had the highest daily oil production rates in the Gulf of Mexico. With 20 of the most prolific producing blocks in the GOM located in deep water. In 2007, the GOM supplied approximately 25 percent of the Nation's domestic oil and 14 percent of its domestic gas production.



#### Source: Minerals Management Service

Future Outlook and Opportunities

Continued deepwater production

GOM deepwater oil production continues to be strong since surpassing shallow-water oil production in 2000.



Minerals Management Service Lease Sales

Future Outlook and Opportunities

**Minerals Management Service lease sales** 

Eastern lease sale 224, pictured at right, attracted \$65 million in high bids. MMS received 58 bids from six companies on 36 blocks. These lease sales indicate continued significant interest in the GOM. The sales also represent increased exploration and development opportunities, with lease sale 224 representing the first time that area has been available to exploration since 1988.

Eastern Gulf lease sales 206 (pictured on the following page) and 224 were held on March 19, 2008. The lease sale 224 included 97 lease blocks in the deepwater DeSoto Canyon and Lloyd Ridge areas. Lease sale 206 attracted approximately \$3.7 billion in high bids, representing the highest such figure since Federal offshore leasing began. A total of 1,057 bids from 85 companies on 615 blocks were submitted.

Eastern Louisiana, Mississippi, Alabama, and potentially Florida ports, and their communities, stand to benefit from increased service opportunities as these areas are explored and developed.



Minerals Management Service Lease Sale 206

Future Outlook and Opportunities

**Minerals Management Service lease sale 206** 



Future Outlook and Opportunities

Spring 2010 anticipated lease sale 213



Distance to Lease Sale 224 by Port

Future Outlook and Opportunities

**Distance to Lease Sale 224 by Port** 



Distance to Anticipated Lease Sale 213 by Port

Future Outlook and Opportunities

Distance to Anticipated Lease Sale 213 by Port


Estimated Average Round Trip Fuel Cost by Port

Future Outlook and Opportunities

Estimated Average Round Trip Fuel Cost by Port

Distance to Minerals Management Service Lease Sales Nautical Miles

(sorted by shortest average distance)

_	Distance f MMS Lease Sa	Estimated Average Round Trip OSV Fuel Cost		
Port / Lease Sale	LS 213	LS 224	LS 213	LS 224
Pensacola	95	143	\$5,091	\$7,699
Venice	104	153	\$5,575	\$8,207
Pascagoula	108	166	\$5,796	\$8,912
Theodore	110	167	\$5,885	\$8,940
Panama City	121	141	\$6,479	\$7,565
Fourchon	146	189	\$7,816	\$10,159
Houma	174	220	\$9,343	\$11,794
Morgan City	204	251	\$10,928	\$13,474
St.Petersburg	263	224	\$14,109	\$11,996
Manatee	269	228	\$14,430	\$12,254
Tampa	270	233	\$14,485	\$12,492

Assumptions: Typical Offshore Supply Vessel, Knots 12.0, Fuel Consumption,

U.S Gallon per Hour: 140, Gallons per Nautical Mile 11.67, \$2.30 per gallon retail diesel.

Geographic location and the ability to support long distance offshore supply vessels will become an increasingly competitive advantage for ports along the Eastern Gulf. Venice has the most competitive total fuel cost, given its geographic location, to any other port located along the GOM with the exception of Pensacola (LS 213 and 214) and Panama City (LS 224 only).

Oil and Gas Service Companies' Proximities to the Port of Venice

Future Outlook and Opportunities

Oil and gas service companies' proximities to the Port of Venice

The Proximities of Oil and Gas		Within 50 Miles			Within 100 Miles	
to the		Porcont of Total			Porcent of Total	
Port of Venice		Gulf Coast			Gulf Coast	
	Number of	Same Category	Distribution of	Number of	Same Category	Distribution of
	Companies	Companies	Companies	Companies	Companies	Companies
Bits and Tools	1	0.01%	1.67%	5	0.06%	0.58%
Computer Services - Oil & Gas	-	-	-	7	0.08%	0.81%
Drilling Contractors	3	0.04%	5.00%	15	0.18%	1.74%
Drilling Mud & Mud Loggers	3	0.04%	5.00%	11	0.13%	1.28%
Fabricators-Machine Shops-Welders	8	0.10%	13.33%	43	0.51%	5.00%
Marine Contractors	6	0.07%	10.00%	29	0.34%	3.37%
Marine Supply Bases	3	0.04%	5.00%	11	0.13%	1.28%
Oilfield Chemicals & Services	-	-	-	13	0.15%	1.51%
Other Services	22	0.26%	36.67%	358	4.26%	41.63%
Pipe Services	-	-	-	9	0.11%	1.05%
Pipeline Contractors		-	-	1	0.01%	0.12%
Pipeline Operators	1	0.01%	1.67%	3	0.04%	0.35%
Rental-Tools & Equipment	-	-	-	53	0.63%	6.16%
Ship, Boat & Offshore Rig Builders	4	0.05%	6.67%	26	0.31%	3.02%
Stimulation & Cementing Services	1	0.01%	1.67%	4	0.05%	0.47%
Suppliers & Manufacturers	3	0.04%	5.00%	224	2.66%	26.05%
Tubular Goods	2	0.02%	3.33%	12	0.14%	1.40%
Valve & Instrumental Reconditioning	-	-	-	6	0.07%	0.70%
Well Testing, Completion	2	0.02%	3.33%	15	0.18%	1.74%
Workover & Well Services	1	0.01%	1.67%	15	0.18%	1.74%
Total	60	0.71%	100.00%	860	10.22%	100.00%

Venice has one of the largest concentrations of service companies located in close proximity. There are approximately 860 total service companies of all types located within 100 miles of the Port.

Oil and Gas Service Companies' Proximities to the Port of Venice

Future Outlook and Opportunities

A map of oil and gas service companies' proximities to the Port of Venice



**Oil and Gas Service Companies' Proximities to Gulf Coast Ports** 

**Future Outlook and Opportunities** 

A map of oil and gas service companies' proximities to Gulf Coast Ports





7

#### Conclusions

Importance of the Port of Venice to offshore oil and gas production

Importance of dredging investments to the Port of Venice

Importance of economic activities at the Port of Venice

The economic impacts of the Port of Venice

Future growth opportunities for the Port of Venice

Conclusions Importance of the Port of Venice to offshore oil and gas production

The Port of Venice is the "Gateway to the Gulf" and serves as one of the region's premier energy service ports.

The Port provides a wide range of services including maintenance, specialty supplies, transportation, rig towing, and drilling supplies, to name a few.

The Port is in close proximity to the prolific offshore production areas of the Central GOM (New Orleans district). This area accounts for over 50 percent and 45 percent of all federal GOM oil and natural gas production, respectively.

The Port is the primary service base for state and inland water oil and natural gas production. The state production areas served by the Port account for over 30 percent and 5 percent of all state oil and natural gas production, respectively.

The Port services state production activities that contribute \$300 million per year in state mineral revenues (over \$500 million in 2008). Over the past five years, the Port serviced state production that contributed more than \$1.9 billion in state mineral revenues, more than another area of Louisiana.

Conclusions Importance of dredging investments to the Port of Venice

The detailed survey conducted by the LSU Center for Energy Studies found that continued investments in the Port of Venice, primarily associated with dredging activities for Baptiste Collette Bayou, Tiger Pass, and South Pass had considerable economic value. The survey had a 30 percent response rate for the entire sample, and an estimated 58 percent response rate for those entities identified as Port tenants.

A large number of survey respondents indicated that they were likely to make Venice their primary port if Baptiste Collette Bayou were dredged to a more accessible channel depth.

Over 60 percent of the survey respondents indicated that they were likely to make Venice their primary service base if Bayou Collette Bayou, Tiger Pass, and South Pass were all dredged to more accessible channel depths.

Conclusions Importance of economic activities at the Port of Venice

In 2008, Port tenants are estimated to have earned over \$180 million in annual operating revenues. For 2009, tenants are estimated to see a decrease in annual operating revenues to \$156 million and gross earnings of \$118 million.

In 2008, Port tenants made over \$47 million in capital investments at their businesses and anticipated to make over \$58 million in capital investments for 2009 despite anticipated decrease in oil and gas prices.

The Port is estimated to facilitate over 26 vessel trips per day in activity. Over 33 percent of this activity is estimated to be related to rig towing while another 52 percent is estimated to be related to oil and gas service activities.

Conclusions — The economic impacts of the Port of Venice

The economic impacts of infrastructure and development activities at the Port stimulated \$66 million and \$95 million in 2008 and 2009, respectively.

The economic impacts of marine vessel investments made by port tenants is estimated to have contributed \$96 million and \$167 million in 2008 and 2009, respectively.

Annual operations at the Port are anticipated to have contributed \$196 million and \$196 million to the local and regional economy in 2008 and 2009, respectively.

The Port is estimated to have contributed between 512 to 737 jobs in construction activities over the past two years. Port tenants are estimated to have stimulated between 540 to 941 Louisiana jobs through their marine vessel investments.

Construction activities at the Port are estimated to have contributed \$25 million and \$36 million in wages in 2008 and 2009, respectively. Marine vessel investments are anticipated to have stimulated \$29 million to \$51 million in wages for the entire state.

Annual operations at the Port are estimated to support over 870 jobs per year for an average of around \$45 million in annual wages.

Conclusions Future growth opportunities for the Port of Venice

The Port of Venice is well situated to provide continued support to offshore oil and gas exploration and production activities in both state waters and the federal OCS.

Most respondents participating in the LSU-CES survey indicated that they anticipated expanded business opportunities from opening the Eastern GOM to oil and gas drilling. Some 81 percent anticipated expanded business opportunities and close to half indicated that they had received bona fide inquiries about potentially servicing Eastern GOM activities over the past year.

The Port of Venice is one of the closest potential service bases to production areas included in recent and anticipated Eastern GOM lease sales (LS 224 and LS 213). The only other potential ports that are closer to these emerging production areas is Pensacola and Panama City, neither of which have well-established oil and gas service businesses at the current time.

Some 60 service companies are located within 50 miles of the Port and another 860 are located within 100 miles. The Port is well positioned to serve as a base of operations for many of these service companies as well as the emerging opportunities to support the development and operation of recently announced offshore LNG regasification terminals.