Golden Pass Products

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October 25, 2012

Mr. John A. Anderson
Manager, Natural Gas Regulatory Activities
Office of Oil and Gas Global Security and Supply
Office of Fossil Energy
U.S. Department of Energy
Docket Room 3F-056, FE-50, Forrestal Building
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Re: Golden Pass Products LLC, FE Docket No. 12- 156 -LNG
Application for Long-Term Authorization to Export LNG
to Non-Free Trade Agreement Countries

Dear Mr. Anderson:

Golden Pass Products LLC ("GPP") hereby submits for filing with the Department of Energy, Office of Fossil Energy an application for long-term authorization to export liquefied natural gas ("LNG") to non-Free Trade Agreement countries. GPP requests long-term, multi-contract authority to export up to 740 billion cubic feet equivalent of domestically produced natural gas per year in the form of LNG from an export terminal to be located at the site of the Golden Pass LNG import Terminal in Sabine Pass, Texas.

The requested export authority would permit GPP to export domestically produced natural gas that it purchases, liquefies and sells directly, to provide tolling services to export LNG to third parties, and to act as an agent for others to export LNG to any country that has or in the future develops the capacity to import LNG via ocean-going carrier and with which the United States allows trade but does not have an existing Free Trade Agreement.

As required by the DOE Regulations at 10 C.F.R. § 590.207, a check for the filing fee in the amount of $50.00 is enclosed. Pursuant to 10 C.F.R. § 590.103(b), a certified statement that the signatory is a duly authorized representative is attached in Exhibit A.

If you have any questions, please contact me at (713) 860-6352.

Respectfully submitted,

Blaine Yamagata

Blaine Yamagata
Attorney for
Golden Pass Products LLC

Three Allen Center • 333 Clay Street • Suite 802 • Houston, TX 77002 • Tel: 713-860-6361 • Fax: 713-860-6349

UNITED STATES OF AMERICA
BEFORE THE DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

Golden Pass Products LLC) **FE Docket No. 12 - 156 LNG**

APPLICATION OF GOLDEN PASS PRODUCTS LLC FOR LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS TO NON-FREE TRADE AGREEMENT COUNTRIES

Blaine Yamagata
Vice President and General Counsel
Golden Pass Products LLC
Three Allen Center, Suite 802
333 Clay Street
Houston, TX 77002
(713) 860-6352
blaine.yamagata@gpterminal.com

Kevin M. Sweeney
John & Hengerer
1730 Rhode Island Ave., NW
Suite 600
Washington, DC 20036
(202) 429-8802
ksweeney@jhenergy.com

Counsel for
Golden Pass Products LLC

October 25, 2012

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EXECUTIVE SUMMARY

Golden Pass Products LLC ("GPP" or "Golden Pass Products") seeks authorization from the Department of Energy's Office of Fossil Energy ("DOE/FE") to export liquefied natural gas ("LNG") by vessel up to the equivalent of 740 billion cubic feet ("Bcf") per year of domestically produced natural gas for twenty-five years to countries with which the United States permits trade but does not have a Free Trade Agreement. Golden Pass Products' exports from proposed facilities in Sabine Pass, Texas would provide significant benefits that are consistent with the public interest, and consequently satisfy the statutory standard for authorization of such exports. Golden Pass Products attaches two economic studies in support of this Application.

Golden Pass Products	
Location	Near Sabine Pass, Texas
LNG Capacity	~15.6 MTA
Investment	~$10 billion
Modes	Bi-directional
Siting	On existing Golden Pass site
Construction	Up to 5 years
Term	25 years

Golden Pass Products is proposing to add export capabilities to its affiliated[1] world-class LNG import terminal in Jefferson County, Texas. To engage in the proposed exports, Golden Pass Products will seek authorization from the Federal Energy Regulatory Commission ("FERC") to construct, site and operate the Golden Pass Products Export Terminal.

Golden Pass LNG Terminal LLC ("GPLNG") owns and operates an LNG import terminal located near Sabine Pass, in Jefferson County, Texas. The existing GPLNG facility, located on the Sabine-Neches Waterway, includes five LNG storage tanks and two berths. Golden Pass Pipeline LLC ("GPPL") owns and operates a 70-mile pipeline system with nine interconnects to intrastate and interstate pipelines. The GPPL pipeline provides access to major markets, connecting to both the Houston Ship Channel and major interstate pipelines servicing the Gulf Coast, Midwest and northeast United States.

Golden Pass Products was formed by affiliates of Qatar Petroleum ("QP") and Exxon Mobil Corporation ("ExxonMobil"), two of the world's leading energy companies with an unrivaled record of producing, shipping and marketing natural gas globally. Collectively, QP and ExxonMobil have been involved in the development of global LNG capacity in excess of 62 MTA. In complement to proven execution capabilities, QP and ExxonMobil have a track record

[1] Golden Pass Products is affiliated with GPLNG and GPPL.

of applying technological innovation to deliver successful projects and develop competitive energy supplies, including pioneering advances in liquefaction and LNG ship design. QP, ExxonMobil and their affiliated companies have a wealth of marketing experience, with a large existing customer base in Asia Pacific, Europe and the Americas. Further underpinning these qualifications are the financial strength and discipline to realize long-term, world-scale endeavors. Golden Pass Products is positioned to leverage this experience, technology, market access, and financial strength to contribute to this American opportunity.

The proposed expansion would provide the flexibility for GPLNG to import and Golden Pass Products to export natural gas in response to market conditions. The new facility would be built on existing GPLNG property and utilize the existing state-of-the-art tanks, berths and pipeline infrastructure, thus ensuring that such facilities will continue to provide services and associated jobs while minimizing the environmental footprint.

Abundant Domestic Supplies

Golden Pass Products would access gas from a vast pool of U.S. gas resources. Recent industry advances have driven extensive additions to the U.S. natural gas resource base, creating ample opportunity for both growing domestic demand and LNG exports. Exports will encourage producers to respond with additional supply. While actual pricing will vary depending on a range of factors, a third-party study performed by Deloitte MarketPoint ("DMP") estimated the domestic price effects from the project at less than 1%, despite an outlook of robust U.S. gas demand growth. At the same time, DMP highlighted underlying market benefits in terms of encouraging and stabilizing future U.S. natural gas developments. In summary, based on the DMP study, the U.S. is expected to remain an efficient and well-supplied gas market, while capturing new opportunities from LNG export.

Limited Cumulative Effects

Free market forces are well suited to efficiently determine the growth of U.S. exports and naturally moderate potential domestic market effects. Such an approach is fully consistent with DOE/FE's policy, in place since 1984, of promoting competition in the market by permitting exports to occur on a market-responsive, competitive basis.

In its study, DMP considered pricing effects within a range of U.S. LNG export volumes and found that "the magnitude of domestic price increase that results from exports of natural gas in the form of LNG is quite small,"[2] ranging from about 1% to 8% depending on total volume and location. The range of potential domestic price effects in the DMP study[3] is comparable to the range of results referenced in the Sabine Pass Order, which the DOE/FE found to "indicate a *modest* increase in the domestic market price for natural gas through 2035."[4] Golden Pass

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2 DMP study at 1.

3 DMP study at 4.

4 *Sabine Pass Liquefaction, LLC*, FE Docket No. 10-111-LNG, Order No. 2691 (May 20, 2011) (emphasis added).

Products, therefore submits that the potential domestic price effects in the DMP study (whether due to the Golden Pass Products LNG export project or cumulative U.S. LNG exports) can be considered modest.

First, U.S. producers currently have access to abundant domestic natural gas that can be developed cost-effectively to supply both domestic and incremental LNG export opportunities. Second, since LNG export ventures are long-term, commercially complex, technically demanding, and capital-intensive endeavors, only a limited number of projects will likely reach completion. The recent history of U.S. LNG import terminals underscores the degree of challenge; in that instance, fewer than one in four projects that applied ultimately reached completion. Lastly, competition for international markets will serve to balance the collective growth of U.S. LNG export developments, further moderating domestic market implications.

Significant Benefits

According to an independent study performed by The Perryman Group ("TPG"), this project would create significant, widespread and long-lasting benefits to the U.S. economy.

This world-scale investment could create approximately $31 billion in U.S. economic gains (gross product) at local, state and national levels over the life of the project.[5] This project represents a significant opportunity for investment and economic output. The approximately $10 billion investment in infrastructure to build the facility would generate:

- An estimated $20 billion in national gross product during the five-year construction phase
- An estimated $11 billion in national gross product from operations, about $460 million annually for the life of the facility (approximately twenty-five years)[6]

The Golden Pass Products LNG export project contributes to critical U.S. efforts to

Golden Pass Products

Employment	Estimates
Jobs (direct & indirect)	320,000+ person-years of employment
Construction Phase (direct & indirect)	45,000+ average annual jobs for 5 years
Operations Phase (direct & indirect)	3800+ permanent jobs for 25 years

Source: The Perryman Group

Economic Benefits	Estimates
Investment	$10 billion
Project Life (Gross Product)	$31 billion
Construction	$20 billion
Operations	$11 billion
Annual Operations	$460 million
Taxes	$4.6 billion
Annual Operations	$56 million

Source: The Perryman Group

Highlights	
Experience	Qatar Petroleum and ExxonMobil bring world-class experience, technology, market access and financial strength
World Class Facilities, Existing Site	• Optimizes existing assets of world-class import terminal, berths and pipeline • Utilizes existing footprint to minimize environmental and community impacts
Domestic Effects	Modest effects on domestic gas supply and pricing, according to Deloitte MarketPoint
Local Fit	Leverages skilled local workforce in a historically energy-based local economy; Supported by local leadership

5 TPG study, at 2.

6 TPG study at 2.

expand international trade, including the President's export initiative to spur economic growth and job creation. In addition to the above figures, the project would also serve to stimulate billions of dollars in economic output in the gas exploration and production and petrochemical industries.

According to the TPG study, the Golden Pass Products LNG export project would generate tens of thousands of jobs for American workers across the country, including:

- Approximately 324,000 person-years of direct and indirect work over the life of the project
- During the five-year construction phase, the equivalent of 45,000 jobs nationally across a spectrum of supporting industries, including manufacturing, transportation and utilities, including about 9,000 construction jobs (3,000 at peak)
- Around 3,800 permanent jobs nationwide during the operations phase, including more than 200 jobs at the facility[7]

Golden Pass Products and indirect sources are projected by the TPG study to provide cumulative tax revenues for federal, state and local governments totaling about $4.6 billion across the construction and operating life of the project.[8]

The project is projected to access the region's existing skilled workforce, and thus could be accommodated by the local area.

Conclusion

Based on independent third party studies, Golden Pass Products' proposed export would create significant economic benefits, with modest potential domestic natural gas price effects. The requested export authorization would significantly advance the public interest, as the associated project would benefit many Americans in the form of job growth and increased economic opportunity.

7 TPG study at 3, 23.

8 TPG study at 3, 30.

UNITED STATES OF AMERICA
BEFORE THE DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY

Golden Pass Products LLC) FE Docket No. 12 - 156- LNG

APPLICATION OF GOLDEN PASS PRODUCTS LLC FOR LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS TO NON-FREE TRADE AGREEMENT COUNTRIES

Pursuant to Section 3 of the Natural Gas Act ("NGA")[1] and Part 590 of the Department of Energy ("DOE") Regulations,[2] Golden Pass Products LLC ("GPP") hereby submits this Application to export domestically produced liquefied natural gas ("LNG").

I. REQUEST FOR AUTHORIZATION

GPP requests authorization from the Department of Energy's Office of Fossil Energy ("DOE/FE") to export domestically produced LNG by ocean-going vessel, up to the equivalent of 740 billion cubic feet ("Bcf") of domestically produced natural gas equivalent per year, equal to 15.6 million metric tons per annum ("MTPA") of LNG.[3] In order to engage in these exports, GPP requests authority to (1) engage in natural gas purchases and LNG sales for export and (2) act as agent for third parties. In addition, GPP requests authorization to provide tolling services

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1 15 U.S.C. § 717b.

2 10 C.F.R. Part 590 (2011).

3 The total annual export quantity for which authorization is sought would equate to an annual average daily quantity of approximately 2.0 Bcf of natural gas equivalent, and a daily peak of 2.6 Bcf of natural gas equivalent. Pursuant to 10 C.F.R. §590.202(b) (1), GPP states its request in this Application in Bcf/d. Typically, however, LNG is measured in MTPA. To state the export quantity in Bcf, GPP has used a MTPA/Bcf conversion factor of 47.256. However, the actual conversion factor for a given cargo will depend on the composition of the natural gas. Moreover, should DOE/FE use a different conversion factor, such as the 48.7 conversions factor set forth in the order granting Freeport export authority to Free Trade Agreement countries, *Freeport LNG Development, LP,* FE Docket No. 11-51-LNG, Order No. 2986 (July 19, 2011), then the total annual exports requested by GPP would increase slightly.

for third parties. GPP requests these authorizations for a twenty-five-year term commencing on the earlier of (1) the date of first export or (2) seven years from the date the requested authorization is issued.

GPP proposes to export LNG to any country (1) that has or in the future develops the capacity to import LNG via ocean-going carrier; (2) with which the United States ("U.S.") does not prohibit trade; and (3) does not have a Free Trade Agreement ("FTA") requiring the national treatment for trade in natural gas ("NFTA country"). GPP also requests that this authorization provide GPP with the authority to act as agent on behalf of other entities who themselves hold title to the LNG, after each such entity has been registered with the DOE/FE. GPP proposes to export this LNG from the proposed GPP export project to be constructed contiguous to and interconnected with the existing LNG import terminal owned and operated by Golden Pass LNG Terminal LLC ("GPLNG") in Sabine Pass, Texas.[4]

This Application represents the second part of GPP's two-part request for authorization to export domestic natural gas in the form of LNG. On August 17, 2012, GPP submitted a separate application, at FE Docket No. 12-88-LNG, to the DOE/FE under Section 3 of the NGA for long-term, multi-contract authorization to export domestically produced LNG to any country: (1) with which the U.S. has, or in the future enters into, an FTA requiring national treatment for trade in natural gas; and (2) that has or in the future develops the capacity to import LNG via ocean-going carrier. The DOE/FE granted GPP authorization to export LNG to

[4] GPLNG received authorization from the Federal Energy Regulatory Commission ("FERC") to site, construct and operate the GPLNG Terminal as a receiving terminal for LNG imports. *Golden Pass LNG Terminal LP and Golden Pass Pipeline L.P.*, 112 FERC ¶ 61,041 (2005). GPLNG initially commenced service on March 14, 2011. As described and discussed below, GPP intends to seek authorization from the FERC under Section 3 of the NGA to site, construct, and operate liquefaction and other facilities necessary to liquefy domestically produced natural gas for export as LNG, contiguous to and interconnected with the GPLNG Terminal facilities.

FTA countries on September 27, 2012 in *Golden Pass Products LLC,* FE Docket No. 12-88-LNG, Order No. 3147.

Through the combination of these two LNG export applications, GPP requests authorization to export domestically produced natural gas as LNG to any country with which trade is not prohibited by U.S. law or policy.

II. DESCRIPTION OF APPLICANT

The exact legal name of GPP is Golden Pass Products LLC. GPP is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business at Three Allen Center, Suite 802, 333 Clay Street, Houston, TX 77002**.** GPP is owned by QTL U.S. Terminal LLC, an affiliate of Qatar Petroleum International Limited, and Golden Pass LNG Terminal Investments LLC. GPP is affiliated with Golden Pass LNG Terminal LLC and Golden Pass Pipeline LLC.[5]

Golden Pass Products was formed by affiliates of Qatar Petroleum ("QP") and Exxon Mobil Corporation ("ExxonMobil"), two of the world's leading energy companies with an unrivaled record of producing, shipping and marketing natural gas globally. Collectively, QP and ExxonMobil have been involved in the development of global LNG capacity in excess of 62 MTA and have more than thirty-five years of operational experience. Over the past twenty years, QP and ExxonMobil have funded billions of dollars of investments in LNG projects, providing a significant contribution to the world's new liquefaction capacity. In complement to proven execution and operational capabilities, QP and ExxonMobil have a track record of applying technological innovation to deliver successful projects and develop competitive energy

[5] The terminal and the pipeline were authorized by the FERC in *Golden Pass LNG Terminal LP and Golden Pass Pipeline LP*, 112 FERC ¶ 61,041 (2005) ("Certificate Order"), *amended*, *Golden Pass Pipeline LP*, 117 FERC ¶ 61,015, *further amended*, 117 FERC ¶ 61,332 (2006), *further amended*, 134 FERC ¶ 61,037 (2011).

supplies, including pioneering advances in liquefaction and LNG ship design. Technical achievements include building the first 3.3 MTA, 4.7 MTA and 7.8 MTA liquefaction trains and larger, more cost-effective Q-Flex and Q-Max LNG carriers. Further underpinning the qualifications are the unparalleled financial strength and discipline to realize long-term, world-scale endeavors. Additionally, ExxonMobil is the leading producer of natural gas and has the largest proven gas reserves in the United States.

QP, ExxonMobil and their affiliated companies have a wealth of marketing experience, with a large existing customer base in Asia Pacific, Europe and the Americas. Their marketing efforts have resulted in 62 MTA of LNG sales and purchase agreements in over twenty countries globally. QP and ExxonMobil have ownership interests or capacity rights in more than 20 MTA of regasification in Europe alone. Both QP and ExxonMobil have local liaison offices across the LNG consuming regions and actively pursue market development opportunities in emerging countries while meeting their existing customer needs. By leveraging the marketing capabilities of QP, ExxonMobil and their affiliated companies, GPP would have the unique ability to effectively market U.S. exports competitively into the global LNG marketplace.

QP and ExxonMobil have a long history of the development, execution and operation of successful LNG projects. Golden Pass Products is uniquely positioned to leverage the collective experience, technology, market access, and financial strength to contribute to this American opportunity.

III. COMMUNICATION

GPP requests that all communications regarding this Application be served on the following persons:

Blaine Yamagata
Vice President and General Counsel
Golden Pass Products LLC
Three Allen Center, Suite 802
333 Clay Street, Houston, TX 77002
(713) 860-6352
blaine.yamagata@gpterminal.com

Robert T. Tomlinson
Manager, Regulatory Affairs
Golden Pass Products LLC
Three Allen Center, Suite 802
333 Clay Street, Houston, TX 77002
(713) 860-6348
bob.tomlinson@gpterminal.com

and

Kevin M. Sweeney
John & Hengerer
1730 Rhode Island Ave., NW
Suite 600
Washington, DC 20036
(202) 429-8802

IV. BACKGROUND

GPLNG owns and operates an LNG import terminal located near Sabine Pass, in Jefferson County, Texas. Golden Pass Pipeline, LLC ("GPPL") is an interstate pipeline connected to the import terminal and regulated by the Federal Energy Regulatory Commission ("FERC").

The GPLNG import terminal is a receiving facility for LNG imported from abroad. The import terminal has a nominal output of 2.0 Bcf/d, with a peak capacity of 2.7 Bcf/d. The FERC issued an order on July 6, 2005, authorizing GPLNG under NGA Section 3 to site, construct and operate: (1) a berthing structure and unloading facilities for LNG ships; (2) vaporization equipment; (3) five LNG storage tanks with approximate working capacity of 155,000 cubic meters ("m^3") each; and (4) associated utilities, infrastructure and facilities required to send out natural gas from the import terminal.[6]

[6] The FERC did not require GPLNG to offer open-access service or to maintain a tariff or rate schedules for its terminaling service. Citing *Hackberry LNG Terminal, L.L.C.*, 101 FERC ¶ 61,294 (2002), *order issuing certificates and granting reh'g*, 104 FERC ¶ 61,269 (2003) the FERC found it appropriate to exercise a less-intrusive degree of regulation for new LNG import terminals such as the GPLNG Terminal. *Golden Pass LNG Terminal LP and Golden Pass Pipeline LP*, 112 FERC ¶ 61,041 at P 18 (2005).

The FERC's July 6, 2005 Order also authorized GPPL to construct and operate a 70-mile interstate pipeline system to receive revaporized gas from the GPLNG import terminal to be transported to domestic U.S. markets.[7] GPPL is authorized to provide firm and interruptible transportation service for up to 2.7 Bcf/d of natural gas from the GPLNG import terminal to existing Texas and Louisiana intrastate and interstate pipeline systems.[8]

In 2005, when GPLNG and GPPL received authorization from the FERC to construct the LNG import facilities, it was widely anticipated that LNG imports would play a significant role in meeting near-term U.S. demand.[9] In the past few years, however, the domestic gas supply outlook in the U.S. has changed dramatically. According to the Energy Information Administration ("EIA"), total marketed production grew by 7.9%, from 61.4 Bcf/d in 2010 to 66.2 Bcf/d in 2011, the sixth consecutive year of growth in marketed production, and the largest year-over-year percentage increase since 1984.[10]

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7 *Golden Pass LNG Terminal LP and Golden Pass Pipeline LP*, 112 FERC ¶ 61,041 (2005) ("Certificate Order"), *amended*, *Golden Pass Pipeline LP*, 117 FERC ¶ 61,015, and 117 FERC ¶ 61,332 (2006).

8 *See generally,* 18 C.F.R. Part 284 (governing the open-access transportation of natural gas). GPPL's pipeline interconnects with Energy Transfer Partners, L.P. (Houston Pipe Line Company - Texoma), Florida Gas Transmission Company, LLC, Golden Triangle Storage, Inc., Kinder Morgan Tejas Pipeline LLC, Kinder Morgan Texas Pipeline LLC, Natural Gas Pipeline Company of America, Tennessee Gas Pipeline Company, LLC, Texas Eastern Transmission, LP, and Transcontinental Gas Pipeline Company, LLC.

9 Indeed, the Energy Policy Act of 2005 ("EPAct 2005") demonstrated the Federal Government's support for LNG imports, principally through the codification of the FERC's *Hackberry* Policy, which permits LNG terminals to operate on a proprietary basis instead of cost-based rate and service regulation. 15 U.S.C. § 717b(e)(3)(B)(ii) (before January 1, 2015, the FERC shall not deny an application solely on the basis that the applicant proposes to use the LNG terminal exclusively or partially for gas that the applicant or an affiliate of the applicant will supply to the facility, or condition an order on (1) a requirement that the LNG terminal offer service to shippers other than the applicant, or any affiliate of the applicant, securing the order; (2) any regulation of the rates, charges, terms, or conditions of service of the LNG terminal; or (3) a requirement to file with the FERC schedules or contracts related to the rates, charges, terms, or conditions of service of the LNG terminal). GPP intends to operate its export facilities pursuant to the now statutorily codified *Hackberry* Policy.

10 U.S. EIA "Natural Gas Year-in-Review" (July 10, 2012).

The recent increase in domestic natural gas production and the consequent decline in domestic gas prices have reduced the demand for LNG imports to the U.S. Net gas imports to the U.S. fell by 25% in 2011 from already low levels in preceding years.[11] LNG imports decreased by 19% from 2010's level to 349 Bcf, the lowest level since 2002,[12] at the same time LNG import capacity expanded substantially due to the construction of new terminals such as the GPLNG import terminal, and expansions of the existing Cove Point and Elba Island terminals.

V. DESCRIPTION OF PROJECT

A. Introduction

GPP intends to construct and operate the GPP export facility contiguous to the GPLNG import terminal, for the liquefaction and export of domestically produced natural gas. In conjunction with the authorizations to export LNG that GPP is requesting from the DOE/FE, GPP will separately prepare and file an application with the FERC under NGA Section 3 to site, construct and operate those facilities.[13] GPP intends to construct and operate the export facilities to maximize use of the existing GPLNG import terminal facilities, with the intent of preserving full import capability of the existing GPLNG import terminal facilities while also creating the proposed new export capability. GPLNG would optimize its existing state-of-the-art assets, thus promoting the preservation of jobs and the viability of the facility.

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[11] U.S. EIA, "U.S. Natural Gas Imports & Exports 2011" (July 18, 2012), at 3.

[12] *Id.* at 7.

[13] The regulatory functions of NGA Section 3 were transferred to the Secretary of Energy in 1977 pursuant to section 301(b) of the Department of Energy Organization Act. 42 U.S.C. § 7151(b) (2006). The DOE Secretary subsequently delegated to the FERC the authority to approve or disapprove the construction and operation of facilities for import or export of natural gas, the siting of such facilities, and with respect to natural gas that involves the construction of new domestic facilities, the place of entry for imports or exit for exports. The Secretary's current delegation of authority to the FERC relating to import and export facilities was renewed by the Secretary's DOE Delegation Order No. 00-044.00A, effective May 16, 2006.

Domestic gas would be delivered to the GPP export facility through GPPL's existing pipeline, which will be modified to have the capability to flow gas either to the GPP export facility for export or from the GPLNG import terminal for delivery to interstate and intrastate markets. In addition, the existing facilities at the import terminal would be used as part of the liquefaction project. Existing facilities that may be utilized include insulated LNG and gas piping, ship berthing facilities, and the five LNG storage tanks and control systems. In addition, GPP would construct new facilities to liquefy the natural gas delivered to the GPP export project through the pipeline owned by GPPL. The proposed GPP export project facilities would be interconnected with and contiguous to the GPLNG import terminal, and thus located in an area zoned for industrial use south of the Beaumont-Port Arthur-Orange industrial complex. Because the expansion project would be built on the existing industrial footprint, environmental and community effects would be minimized.

B. Commercial Arrangements

GPP anticipates entering into one or more long-term agreements (a contract of more than two years) to export LNG that do not exceed the term of the authorization requested herein. These contracts will provide for GPP to liquefy natural gas and load it onto LNG tankers for export. The specific terms of GPP's future contracts for liquefaction and exportation of natural gas will include provisions governing dates of commencement and termination, pricing, volumes, and export destinations. Market conditions and negotiations will determine the precise terms of these contracts. These contracts may or may not specify the countries of destination, to provide flexibility to the exporter. However, such contracts will expressly require that export destination be consistent with GPP's export authorization from DOE/FE, and deliveries shall be reported to DOE/FE on a monthly basis as required. This

approach is consistent with the terms previously approved by DOE/FE for a similar LNG export authorization.[14]

Customers contracting with GPP for tolling services will be responsible for procuring their own gas supplies and holding title to the gas that they will deliver to GPP for liquefaction. The customers will be responsible for arranging the delivery of the gas to the terminal. Consistent with prior DOE/FE orders authorizing such export tolling services, GPP will accept a condition requiring it to register with DOE/FE each LNG titleholder for whom GPP seeks to export LNG.[15]

In addition, GPP will file with DOE/FE any relevant long-term commercial agreements within thirty days of execution. GPP will file a complete unredacted version of the contract under seal, and at the same time file either (1) a copy of each long-term contract with commercially sensitive information redacted or (2) a summary of all major provisions of the contract. Each of GPP's contract filings will include a justification for non-disclosure of any redacted contract provisions or information. DOE/FE has previously held that the commitment to file contracts once they are executed complies with the requirement of 10 C.F.R. §

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[14] *Sabine Pass Liquefaction, LLC*, FE Docket No. 10-85-LNG, Order No. 2833 (September 7, 2010) (approving LNG exports to Free Trade Agreement countries), and *Sabine Pass Liquefaction, LLC,* FE Docket No. 10-111-LNG, Order No. 2961 (May 20, 2011) (LNG exports to NFTAs) ("*Sabine Pass Liquefaction*").

[15] *Sabine Pass Liquefaction*, Order No. 2961 at 39-40; *Freeport LNG Development,* Order No. 2986, at 7-8. The registration would include a written statement by the title holder acknowledging and agreeing to comply with all applicable requirements included in GPP's export authorization and to include those requirements in any subsequent purchase or sale agreement entered into for the exported LNG by that title holder. As DOE/FE has recognized, this registration process is responsive to current LNG markets and provides an expedited process by which companies seeking to export LNG can so do. *Freeport LNG Expansion, L.P., and FLNG Liquefaction, LLC*, FE Docket No. 10-160-LNG, Order No. 2913, at 7-8 (February 10, 2011). Of course, the entities that hold title to the LNG are not required to use the agency rights issued to the terminal and could choose to submit an export application for their own separate authorization.

590.202(b) to supply transaction-specific information "to the extent practicable."[16]

C. Sources of Supply

The GPP export facility will be well located to provide access to substantial quantities of natural gas from diverse domestic supply sources. As described above, the GPP export facility will be constructed on the site of the GPLNG LNG import terminal, which is located on the Sabine-Neches Waterway, approximately ten miles south of Port Arthur, Texas. The GPP export facility will thus be located close to the Onshore Gulf Coast, the Offshore Gulf of Mexico and the Mid-Continent producing regions, all of which have long been, and continue to be, significant U.S. natural gas supply areas.

Additionally, there is a well-developed pipeline and transportation infrastructure in the region. The GPP export facility will be connected, through the GPPL pipeline, with the interstate pipeline systems of Florida Gas Transmission Company, LLC, Golden Triangle Storage, Inc., Natural Gas Pipeline Company of America, Tennessee Gas Pipeline Company, LLC, Texas Eastern Transmission, LP**,** and Transcontinental Gas Pipeline Company, LLC. Each of these pipelines in turn has interconnections with a larger network of pipelines traversing the Gulf Coast region. These pipelines will enable GPP to receive gas from the Onshore Gulf Coast, the Offshore Gulf of Mexico and the Mid-Continent areas, and possibly other production areas as well.

GPP respectfully submits that its description of the LNG export contracts it intends to enter into complies with the requirement of 10 C.F.R. § 590.202(b), which requires an export applicant to provide contractual information "to the extent practicable." In approving the

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[16] *Yukon Pacific Corp*., ERA Docket No. 87-68-LNG, Order No. 350 (Nov. 16, 1989); *Distrigas Corp*., FE Docket No. 95-100-LNG, Order No. 1115 (Nov. 7, 1995); *Sabine Pass Liquefaction*, Order No. 2961, at 41.

application of Sabine Pass Liquefaction LLC ("Sabine Pass Liquefaction") to export LNG to NFTA countries over a twenty-five-year term, DOE/FE dismissed a request for waiver of Section 590.202(b) based on its finding that the Sabine Pass Liquefaction's general explanation of the contracts it contemplated entering into, without more, was sufficient to demonstrate that the requirement for submission of contracts was "inapplicable and impractical."[17] For the same reason, GPP submits that this Application meets the requirements of 18 C.F.R. § 590.202(b) pertinent to contract terms, and no waiver of these requirements is necessary.[18] GPP will meet the requirements of DOE/FE Order No. 2961 to submit the transaction-specific information when such contracts are executed.

D. FERC Authorizations

As also discussed above, GPP intends to separately apply to the FERC for authorization to site, construct and operate the proposed GPP export facility under NGA Section 3 and Part 153 of the FERC's regulations.[19] GPP will initiate the "pre-filing" process with the FERC's Office of Energy Projects under the National Environmental Policy Act ("NEPA") to review the proposed liquefaction and related export facilities comprising the GPP export facility, as

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17 *Sabine Pass Liquefaction*, Order No. 2961, at 41.

18 Insofar as it is relevant to this discussion, Section 590.202(b) provides that each application must include, "to the extent applicable," the following information, among other things: (1) "Identification of all the participants in the transaction, including the parent company, if any, and identification of any corporate or other affiliations among the participants;" (2) "[t]he terms of the transaction, such as take-or-pay obligations, make-up provisions, and other terms that affect the marketability of the gas;" (3) "[t]he provisions of the import arrangement which establish the base price, volume requirements, transportation and other costs, and allow adjustments during the life of the project, and a demonstration as to why the import arrangement is and will remain competitive over the life of the project and is otherwise not inconsistent with the public interest;" and (4) "[f]or proposed imports, the need for the natural gas by the applicant or applicant's prospective customers, including a description of the persons who would potentially purchase the natural gas." Other requirements of this section are addressed elsewhere in this Application.

19 GPPL also anticipates filing an application with the FERC under NGA Section 7, 15 U.S.C. § 717f, to modify its current pipeline facilities to enable the system to transport domestic production to the GPP export facility.

provided for in the FERC's regulations.[20] At the conclusion of the pre-filing process, GPP will file an application for the necessary FERC authorization for the construction and operation of those facilities. The FERC will review potential environmental impacts of GPP's proposed export facilities in the pre-filing process, as well as in the authorization proceeding. Previously, DOE has participated in the FERC's environmental review process as a cooperating agency. Accordingly, and consistent with previous DOE/FE orders,[21] GPP requests that the DOE/FE condition the export authorization requested in this Application on GPP's receipt of all necessary FERC authorizations to construct and operate the GPP export facility.

VI. PROPOSED EXPORT IS CONSISTENT WITH THE PUBLIC INTEREST

A. Introduction

Section 3(a) of the NGA, 15 U.S.C. § 717b(a), sets forth the standard for approval of this Application:

> **(a) Mandatory authorization order**
>
> After six months from June 21, 1938, no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without first having secured an order of the [Secretary of Energy ("Secretary")] authorizing it to do so. The [Secretary] ***shall issue such order*** upon application, ***unless***, after opportunity for hearing, it finds that ***the proposed exportation or importation will not be consistent with the public interest.*** The [Secretary] may by its order grant such application, in whole or in part, with such modification and upon such terms and conditions as the [Secretary] may find necessary or appropriate, and may from time to time, after opportunity for hearing, and for good cause shown, make such supplemental order in the premises as it may find necessary or appropriate.[22]

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20 18 C.F.R. §§ 153.12, 157.21(a).

21 *See, e.g., Sempra LNG Marketing, LLC*, FE10-110-LNG, DOE Opinion and Order No. 2885, at 6 (Dec. 3, 2010).

22 15 U.S.C. § 717b(a)(emphasis added).

Section 3(a) establishes a rebuttable presumption that a proposed export of natural gas is in the public interest, and DOE/FE must grant an export application unless the export is found to be inconsistent with the public interest.[23] Any opponents of an export application must make an affirmative showing of inconsistency with the public interest in order to overcome the rebuttable presumption favoring export applications.[24]

In considering export applications, the DOE/FE focuses on "the domestic need for the gas; whether the proposed exports pose a threat to the security of domestic natural gas supplies; and any other issue determined to be appropriate, including whether the arrangement is consistent with DOE/FE's policy of promoting competition in the marketplace by allowing commercial parties to freely negotiate their own trade arrangements."[25] Accordingly, the DOE/FE examines whether the proposed exports will be conducted on a market-responsive, competitive basis.[26] DOE/FE gas import and export policies were "designed to establish natural gas trade on a market-competitive basis and to provide immediate as well as long-term benefits to the American economy from this trade."[27] DOE/FE also examines the potential effect of the

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23 *See, e.g.*, *Sabine Pass Liquefaction*, Order No. 2961, at 28; *Conoco Phillips Alaska Natural Gas Corp. & Marathon Oil Co.*, FE07-02- LNG, Order No. 2500, at 43 (June 3, 2008); *Phillips Alaska Natural Gas Corp. & Marathon Oil Co*, 2 FE ¶ 70,317, at 13(Order No. 1473) (1999).

24 *Sabine Pass Liquefaction*, Order No. 2961, at 28 and n. 38; *ConocoPhillips*, Order No. 2500; *Phillips Alaska & Marathon*, Order No. 1473; *Panhandle Producers and Royalty Owners Assoc. v. ERA*, 822 F.2d 1105, 1111 (D.C. Cir. 1987).

25 *Sabine Pass Liquefaction*, Order No. 2961, at 29. This approach is consistent with DOE Delegation Order No. 0204-111, which previously guided DOE decisions on export applications but is no longer in effect. *Id. See also, e.g., ConocoPhillips Alaska*, Order No. 2500, at 44-45; *Phillips Alaska*, Order No. 1473, at 13-14.

26 "New Policy Guidelines and Delegation Orders Relating to the Regulation of Natural Gas," 49 *Fed. Reg.* 6684-01 (Feb. 22, 1984)(hereinafter the "Policy Guidelines"). DOE/FE has repeatedly reaffirmed the continued applicability of the guidelines and has consistently held that they apply equally to export applications (though written to apply to imports). *Yukon Pacific*, Order No. 350; *Phillips Alaska*, Order No. 1473; *ConocoPhillips Alaska*, Order No. 2500, *Sabine Pass*, Order No. 2961.

27 Policy Guidelines, at 6684.

export on domestic natural gas prices over the term of the exportation.

Under these criteria, GPP submits that its requested LNG export authorization is in the public interest. As further demonstrated below, approval of GPP's proposed exports will not impact the adequacy of domestic production to meet projected demand over the term of the requested export and is supported by ample domestic gas resources. Furthermore, the requested authorization contemplates contracts that will be based on market-competitive terms.

In addition, the DOE/FE has considered the public benefits of the proposed export, including the impact on U.S. job creation, the impact on U.S. consumers, the impact on the energy industry and the impact on U.S. gross domestic product; the impact of the proposed project on domestic energy security; the impact on U.S. trade; and the cumulative impacts of all LNG projects on the domestic need for gas.[28] As discussed herein, GPP's proposed export is consistent with the public interest under all of these considerations.

B. Adequacy of Domestic Supply

The U.S. resource base is sufficient to meet both future U.S. domestic demand and the proposed GPP export project volumes over the term of the authorization. Therefore, the proposed exports would not conflict with public need for domestically produced natural gas. Indeed, by helping to create demand, the proposed exports would provide much needed support for ongoing supply development, promotion of long-term supply stability and enhancement of domestic energy security, criteria that DOE/FE considers in its public interest analysis.

In making supply adequacy determinations, DOE/FE has historically evaluated the volume

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28 *See generally, Sabine Pass Liquefaction,* Order No. 2961.

of exports in relation to the total volume of natural gas resources.[29] To demonstrate the balance of supply and demand, the domestic need for gas has been examined using a range of demand outlooks, which in turn, are balanced by resource assessments from leading experts. In light of the dramatic recent increase in domestic gas resources, the following analysis clearly demonstrates that sufficient resources exist to satisfy domestic demand as well as the proposed LNG exports from GPP.[30]

1. Domestic Need for Gas

A third-party study performed by Deloitte MarketPoint highlighted the abundance of gas supply available to both domestic needs and LNG exports. To assess the requirements of the U.S. domestic natural gas market, a range of demand scenarios have been examined by GPP. According to EIA's Annual Energy Outlook for 2012 ("AEO 2012"), natural gas demand is projected to grow at a modest pace of 0.4% per annum from 2010 to 2035. More than 65% of the growth comes from the power generation sector, which is forecasted to grow at an average annualized rate of 0.8% per annum. In that scenario, the proposed 2 Bcf/d of LNG exports from GPP would represent less than 3% of total U.S. demand in 2035.[31]

GPP engaged Deloitte MarketPoint ("DMP") to provide a comprehensive analysis to evaluate the price impact of GPP's proposal to export natural gas. The DMP analysis, "Deloitte MarketPoint, Economic Impact of LNG Exports from the United States" (2012)("DMP study"),

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29 *Yukon Pacific*, Order No. 350; *Phillips Alaska*, Order No. 1473; *ConocoPhillips Alaska*, Order No. 2500.

30 According to the DOE/FE website, various applicants, including GPP's application to export LNG to FTA nations, have sought LNG export authority for up to 27.42 Bcf/d. GPP's 2.0 Bcf proposed annual average daily quantity for export to FTA countries is included in that total. Thus, the export authorization GPP seeks in this Application would not increase this total export quantity. *See infra,* the discussion of cumulative impacts.

31 *AEO 2012* at 76.

includes a forecast of robust U.S. gas demand. The DMP study is attached to this Application as Exhibit C. The DMP study differs from others studies assessing the impact of exports insomuch as it uses a dynamic model, rather than one based on a linear program or using a static representation of supply. Consequently, the DMP study presents a rigorous assessment of the economic and related impacts of exports in support of GPP's request for authority to export LNG to non-FTA countries.

DMP's projected gas demand for U.S. power generation is far greater than the AEO 2012 outlook. DMP projects U.S. power generation to increase by about 50% over the next decade.[32] This increase equates to average annual growth rate of approximately 2% per annum, over double the growth rate in the AEO 2012 Reference Case.[33] Furthermore, DMP's demand projection for 2035 not only exceeds the AEO 2012 Reference Case, it also exceeds AEO's highest demand forecast scenario by more than 7%. DMP's gas demand outlook is higher than AEO 2012 outlook based on the results of their integrated power model, which reflects the favorable characteristics of natural gas in the power generation sector. Figure 1 shows EIA and DMP's respective projections of annual natural gas demand for power generation for the period from 2011 through 2034.

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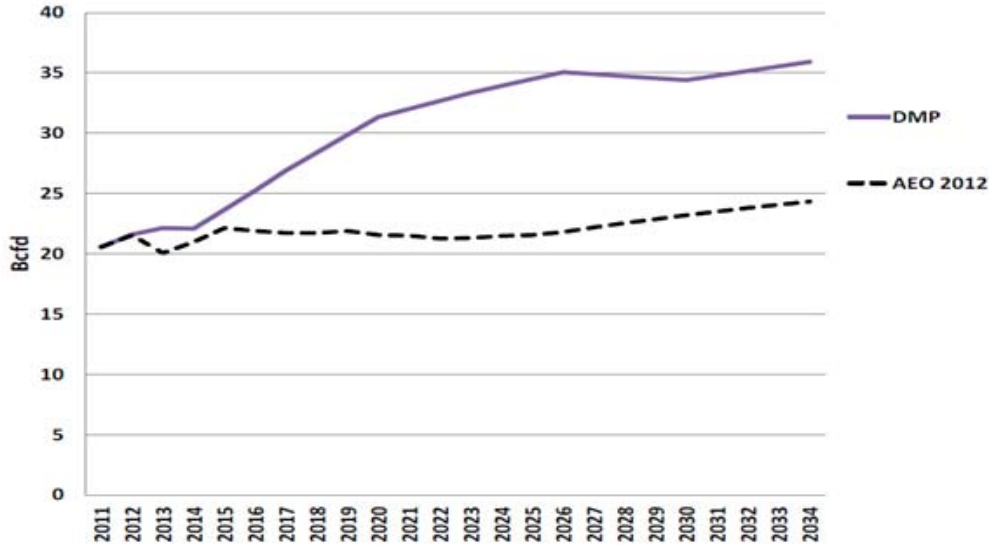
32 DMP study at 6 and Figure 1.

33 The *AEO 2012* Reference case projection is a business-as-usual trend estimate, given known technology and technological and demographic trends. AEO 2012 at ii.

Figure 1: Projections of U.S. Gas Demand for Power Generation



The majority of the projected demand growth occurs in the 2015 to 2025 time period, which coincides with the start-up of GPP's LNG export project. The DMP study analyzes multiple export scenarios, including volumes up to 12 Bcf/d of LNG exports across this period. Because the DMP model assumes market equilibrium given sufficient time and in the absence of constraints, the DMP study projects development of necessary supply to fuel substantial growth in both domestic demand and LNG exports, both at levels well in excess of the growth in EIA's outlook.[34]

2. Domestic Gas Supply

The U.S. total natural gas recoverable resource base has increased significantly in recent years. The most recent estimate by the EIA of natural gas resources in the U.S. is 2,203 Tcf.[35] This latest EIA resource estimate compares to EIA's 2005 resource estimate of about 1,600 Tcf. Similarly the 2010 assessment from the Potential Gas Committee

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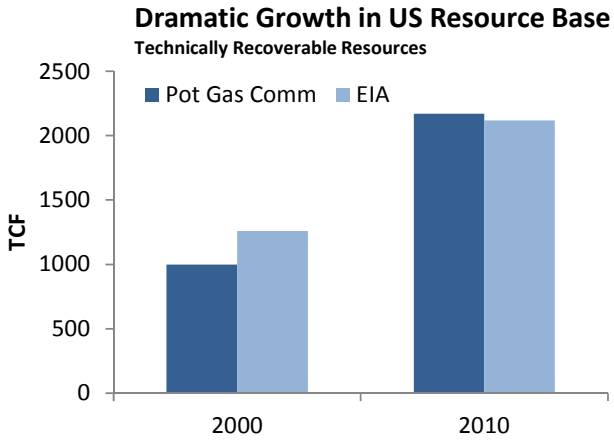
34 DMP study at 10-11.

35 *AEO 2012* at 91, 93, http://www.eia.gov/forecasts/aeo/assumptions/pdf/oil_gas.pdf (proved and unproved reserves).

of the Colorado School of Mines estimated a recoverable natural gas resource in North America of 2,170 Tcf.[36] Figure 2 shows the growth in total resources from 2000 to 2010.

Figure 2: Abundant U.S. Gas Supplies



The increase in resource has mirrored the dramatically increased production levels in recent years. U.S. natural gas production increased from about 22 TCF in 2005 to over 24 TCF in 2011.[37] The concurrent increase in production and technically recoverable reserves has been driven by the development of technology to extract increased quantities of previously uneconomic domestic gas resource, resulting from the refinement and improvement in drilling technologies. According to a recent presentation by the U.S. EIA, technically recoverable resources are dynamic and reflect changing understanding of geology, technology and economics.[38] Future technology improvements in the U.S. have the potential to convert today's vast domestic gas-in-place resources into tomorrow's technically recoverable resources.

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36 Potential Gas Committee press release, April 27, 2011, http://potentialgas.org (follow "Publications" hyperlink to "Press Releases," then "National Press Release" hyperlink).

37 EIA, "U.S. Natural Gas Consumption," http://www.eia.gov/naturalgas/ (follow "Data" hyperlink to "Consumption" hyperlink, to "Consumption by End Use hyperlink," select "Annual").

38 EIA, "Emerging Oil & Gas Supplies: Future Prospects for Oil & Gas Production," for Bipartisan Policy Center: Understanding the New Energy Landscape, June 27, 2012, http://www.eia.gov/pressroom/presentations/staub_06272012.pdf

3. Abundant Supply for Growing Markets

LNG exports encourage and stabilize further U.S. natural gas developments. Supply and demand are two parts of a single dynamic, with reliable demand a key to underpinning the growth of reliable supply and a sustainable gas market. DMP concludes that LNG exports from the U.S. have the potential to provide a steady, reliable market that would underpin ongoing supply development, and thereby help to balance domestic gas supply and demand.[39]

As a result of the projected growth in production, EIA projects that U.S. natural gas production will exceed consumption early in the next decade under the AEO 2012 Reference case.[40] This projection reflects increased use of LNG in markets outside North America, strong growth in domestic natural gas production, reduced pipeline imports, increased pipeline and LNG exports, and relatively low natural gas prices in the United States.[41] Much of the growth in natural gas production to 2035 under the *AEO2012* Reference case results from the application of recent technological advances and continued drilling activity.[42]

In the coming years, LNG exports can provide a new market for U.S. production that would have otherwise been slower to develop.[43] The proposed GPP export project is well positioned to provide an outlet to a wide range of domestic supply sources. The terminal is located on the Sabine-Neches Waterway just south of Port Arthur, Texas. Texas, Louisiana, Arkansas, Oklahoma and the Gulf of Mexico are key production areas in the U.S.

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39 DMP study at 4, 15-16.

40 *AEO 2012*, at 92 and 94.

41 *Id.* at 94.

42 *Id.* at 3.

43 *Id.* at 16.

Consequently, there is a well-developed network of natural gas infrastructure in the region. As noted above, the GPPL pipeline would connect the proposed GPP export facility to six major interstate pipelines that operate on an open-access basis under the FERC's regulations, as well as two Texas intrastate pipelines, allowing gas exports to be sourced from diverse gas inter and intra-state pipelines.

LNG exports from GPP would provide an additional outlet for growing domestic gas supplies. This outlet also provides long-term signals to grow the gas production industry work force and its attendant industry expertise. Further, the consistent demand helps producers gain necessary financing to continue growth.

The current U.S. total technically recoverable resource base is more than adequate to supply the growing needs of the U.S. gas market. For example, 12 Bcf/d of LNG exports for 25 years is less than 5% of total technically recoverable reserves; GPP's proposed LNG export of 740 Bcf annually for 25 years is less than 1%.[44] Further, the DMP study concludes that the amounts of LNG exports it analyzed are "not likely to induce scarcity, shortage or any significant deleterious effect on domestic markets."[45] Incremental exports from GPP represent a small percentage of the U.S. market and would not impact the ability of the U.S. to meet domestic demand for natural gas. Furthermore, the establishment of new markets for U.S. production would enhance the development of the U.S. natural gas resources securing natural gas supplies for generations to come.

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44 *AEO 2012*, at 91, 93,

45 DMP study at 4; *see also,* Charles Ebinger, Kevin Massy, and Govinda Avasrala, *Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas,* at 28–38 (Brookings Institution, May 2012)("Brookings study").

C. Potential Effect on Domestic Natural Gas Prices

1. Policy Context

The Policy Guidelines discussed in Section VI.A above establish that the federal government's policy is to minimize federal control and involvement in energy markets.[46] The DOE/FE policy is that markets, and not the government, should primarily allocate resources and set prices, and that free trade in natural gas on a market-competitive basis benefits consumers and promotes the public interest. This policy reflects the DOE/FE principle that "[t]he federal government's primary responsibility in authorizing imports [and exports] should be to evaluate the need for the gas and whether the import [and exports] arrangement will provide the gas on a competitively prices basis for the duration of the contract while minimizing regulatory impediments to a freely operating market."[47]

Nevertheless, DOE/FE evaluated in Order No. 2961, *Sabine Pass Liquefaction* the projected effect of LNG exports on domestic gas prices. In that Order, DOE/FE stated "the studies introduced by Sabine Pass indicate a modest increase in the domestic market price for natural gas through 2035".[48] This modest projected increase was viewed as not inconsistent with the public interest. The potential domestic price effects in the DMP study are comparable. Therefore, GPP submits the following section as evidence that the requested export is not inconsistent with the public interest.

2. Overall Effect

DMP Study

In the complex natural gas industry where prices are determined by a number of

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46 *Sabine Pass Liquefaction,* Order No. 2961 at 28, *citing* the *Policy Guidelines*.

47 *Policy Guidelines* at 3.

48 *Id.,* at 29, app. A.

factors, it is challenging to accurately project future prices. The DMP study specifically recognizes this challenge, providing that the results of its analysis are projections only and not intended to be predictions of future events or outcomes.[49] Actual changes in prices may differ materially due to changes in economic conditions, energy demand, energy supply, technology, regulation, political events, demographic changes, and other factors.

GPP submits that domestic natural gas prices over the long-term will be determined by the availability and cost of natural gas supply. Both in the DMP study and in a previously released white paper,[50] DMP applied its integrated North American Power, Coal and World Gas Model ("WGM" or "Model") to project prices under alternative assumptions according to the long-term supply and demand fundamentals of natural gas demand and production costs.

Abundant Low Cost Supply Cushions Potential Price Effect

The potential price effect of LNG exports is mitigated by a vast, low-cost domestic resource base, and exports should not materially increase production costs. According to the DMP study, "the domestic resource base is large enough to absorb the incremental volumes required by LNG exports without a significant increase to future production costs."[51] The DMP study continues by explaining that, since the aggregate supply curve is fairly flat and given there is a significant quantity of domestic gas available at modest production costs, LNG exports are not likely to materially increase production costs.[52]

Potential Price Effect

Although many factors will ultimately determine actual prices, the DMP

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49 DMP study at 2.

50 "Made in America: The economic impact of LNG Exports from the United States," by the Deloitte Center for Energy Solutions (2011 Deloitte Development LLC) (hereinafter "DMP White Paper").

51 DMP study at 4.

52 DMP study at 15.

study projects that Golden Pass Products would have a modest effect on domestic gas pricing. The attached DMP study provides an assessment of the potential price effects of the proposed GPP export facility as well as LNG exports across a range of potential LNG export cases. These cases ranged from 2.0 Bcf/d (the requested export authorization) to 12 Bcf/d (the highest level of LNG exports contemplated in the most recent EIA study[53]).

The DMP study projects that exports of 2 Bcf/d from GPP may have up to a $0.04/MMBtu (less than 1%) effect on long-term annual average prices. DMP's projected price effect for 12 Bcf/d of LNG exports is less than $0.50/MMBtu or approximately 8%. Despite a DMP forecast of gas demand for power generation that is considerably higher than the EIA Reference Case, the price effects remain similar to the price effect deemed to be modest in the *Sabine Pass Liquefaction* Order.[54]

The DMP study shows that the projected price effects vary by location and would tend to be lower outside the region of the proposed GPP export facility. DMP's analysis projects prices to vary by distance from Henry Hub. The price effect of LNG exports is higher at Henry Hub because of the close proximity to LNG projects in the U.S. Gulf Coast – the price effect diminishes with distance. The DMP study shows the potential price effect of LNG exports in the U.S. northeast (a major consumption area) may be less than the effect at Henry Hub.[55]

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53 "Effect of Increased Natural Gas Exports on Domestic Energy Markets as requested by the Office of Fossil Energy," U.S. Energy Information Administration, January 2012.

54 *Sabine Pass Liquefaction*, Order No. 2691, at 29.

55 DMP study at 4.

3. Supply Response

U.S. producers are expected to respond to the long-term signals of increased demand with cost-effective new supplies. As noted above, analysis of the price effect of LNG exports must include recognition of the effect of the supply-demand dynamic. Increased demand, and the effect of demand increases on the anticipated forward market, will incentivize producers to develop resources. Given the long-term nature of gas production, decisions are based on anticipated future developments. Thus, producers will factor into their decision-making process the increased demand due to LNG exports.

LNG export projects require long lead times, including a public application and construction process. Producers will act in an economically rational manner to bring more supplies online so that supplies are available when demand for exports occurs, mitigating potential future market effects.[56] In particular, many feel that the projected growth in production from the large domestic resource base could respond to greater demand at a more or less constant cost of production.

4. External Impacts

The U.S. is expected to remain an efficient and well-supplied gas market. The U.S. is likely to remain the most liquid market for natural gas in the world, supported by its superior infrastructure and dependable demand. In view of the level of North American gas resources compared to any reasonable expectation of demand, DMP concludes that domestic consumers will not be exposed to overseas LNG prices. DMP's analysis further indicates that it is very unlikely that the projected levels of LNG exports will create a need for incremental imported LNG in the U.S. Spot LNG cargos from overseas will land from time to time in the

[56] DMP study at 4.

U.S. and accept U.S. domestic pricing, as overseas LNG production capacity is projected to grow. DOE/FE itself reached a similar conclusion in its recent *Sabine Pass Liquefaction* Order.[57]

D. Public Benefits

The proposed Golden Pass project would create significant public benefits. The project would be an approximately $10 billion investment in infrastructure, which would generate billions of dollars of economic growth at local, state and national levels and billions of dollars in tax revenues to local, state and federal governments. In order to address the economic impact of its proposed LNG exports, GPP submits with this Application a study by The Perryman Group that quantifies the socioeconomic impacts of GPP's proposed export project ("TPG study"). The TPG study quantifies the potential gains in business activity in Jefferson County, Texas, the county in which the terminal is located; the surrounding region; and the U.S. as a whole. The results of the TPG study demonstrate that proposed exports of natural gas by GPP would generate substantial direct and indirect economic gains through both the planning and construction phase of the project and during the twenty-five-year term of ongoing operations.

1. Impact on U.S. Job Creation

a. Direct and Indirect Job Creation

The GPP export project would generate tens of thousands of new jobs for American workers across the country.

Figure 3

Employment	Estimates
Jobs (direct & indirect)	320,000+ person-years of employment
Construction Phase (direct & indirect)	45,000+ average annual jobs for 5 years
Operations Phase (direct & indirect)	3800+ permanent jobs for 25 years

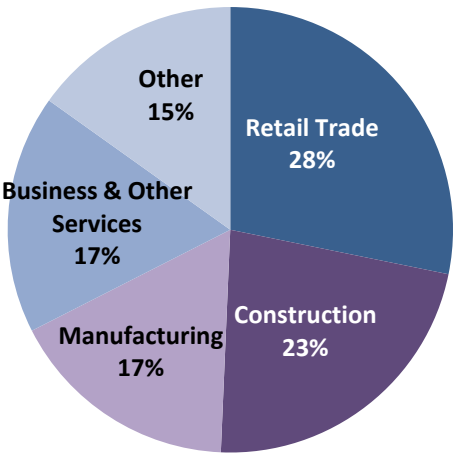
Source: The Perryman Group

[57] *Sabine Pass Liquefaction*, Order No. 2961, at 34.

The TPG study calculated the total number of jobs created during the planning and construction of the GPP export project, as well as the jobs created over the operation of the GPP export facility. In all, more than 320,000 person-years of employment would be generated, including 110,000 in Jefferson County.

In the construction phase, TPG estimates the GPP export project would create the equivalent of 45,000 average annual direct and indirect jobs across the country for about five years. In Jefferson County, the project is estimated to create the equivalent of about 9,000 average annual direct and indirect jobs over the construction phase.[58] Figure 4 shows the distribution of jobs by sector.

Figure 4: U.S. Jobs Created by Sector – Construction Phase
Source: TPG Study

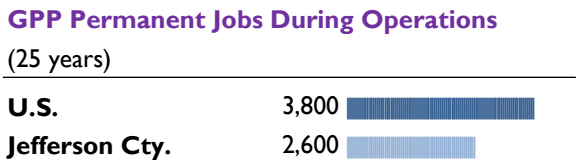


The TPG study shows that the majority of jobs during the construction phase are created at the retail, business and other services and other sectors. Manufacturing and construction account for 40 percent of the job creation during this phase of the project.

58 TPG study at 23.

In the operations phase, TPG estimates the GPP export project would create the equivalent of 3,800 average annual direct and indirect jobs across the country for the twenty-five-year life of the facility. In Jefferson County, the project is estimated to create the equivalent of about 2,600 annual direct and indirect jobs over the life of the facility.[59] Figure 5.

Figure 5



Nationally, the U.S. would benefit from substantial job increases due to broader economic activity driving the GPP export project, including natural gas exploration and production, as well as petrochemical development. TPG estimates that in a typical year, more than 50,000 permanent jobs would be created by the additional natural gas production and exploration required to supply the GPP export project[60].

Furthermore, TPG states that increased natural gas liquids due to exports of LNG have the potential to support new investments in the petrochemical industry, leading to an additional 40,000 direct and indirect permanent jobs in the U.S.[61] Both on a local and national level, exports from GPP will create a substantial amount of new jobs positively impacting a broad range of business sectors.

b. Promotion of National Policy

The GPP export project contributes to critical U.S. efforts to expand international trade, including the President's export initiative to spur economic growth and job creation. The creation of jobs associated with GPP's export project is the

59 TPG study at 26.

60 TPG study at 32 (typical year supporting 54,250 jobs).

61 TPG study at 36 (at maturity supporting 40, 018 jobs).

very type of job creation that the current Administration intended to promote in its 2010 National Export Initiative ("NEI").[62] In announcing the NEI, the President explained:

> Creating jobs in the United States and ensuring a return to sustainable economic growth is the top priority for my Administration. A critical component of stimulating economic growth in the United States is ensuring that U.S. businesses can actively participate in international markets by increasing their exports of goods, services, and agricultural products. Improved export performance will, in turn, create good high-paying jobs.

When introducing the American Jobs Act to a Joint Session of Congress, the President explained:[63]

> Now it's time to clear the way for a series of trade agreements that would make it easier for American companies to sell their products in Panama and Colombia and South Korea – while also helping the workers whose jobs have been affected by global competition. If Americans can buy Kias and Hyundais, I want to see folks in South Korea driving Fords and Chevys and Chryslers. I want to see more products sold around the world stamped with the three proud words: "Made in America." That's what we need to get done.

Approval of GPP's LNG export authorization is a concrete step to advance the goal of increasing exports and thereby creating more jobs in the U.S.

2. Impact on U.S. Consumers

The TPG study projects that the effect on the average electricity bill would be less than the potential wholesale gas price effect. TPG assessed the potential effects of wholesale gas price increases on end-user gas and electricity bills. It is important to note that wholesale price is only a portion of the total consumer price for natural gas and electricity. According to the U.S. EIA, 42% of the average electricity price is due to transmission and distribution charges and

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62 NEI, Executive Order No. 13534, 75 *Fed. Reg.* 12433 (March 11, 2010).

63 President Barack Obama, Address to a Joint Session of Congress (Sept. 08, 2011), transcript available at http://www.whitehouse.gov/the-press-office/2011/09/08/address-president-joint-session-congress

therefore unaffected by changes in the price of fuel for power generation.[64] Consequently, TPG estimated that based on a projected wholesale gas price increases of 0.5% to 0.8% for GPP (per DMP study),[65] the impact on residential natural gas bills would fall in the range of 0.08%-0.13% per month.[66] According to the highest LNG export industry potential wholesale price effect in the DMP study of 8%, TPG projects the typical U.S. household utility bills would experience an increase of about 1.1% or less.[67]

It is important to note that the net impacts on U.S. consumers from the proposed GPP export project should take into account the consumer gains from the overall net positive income and job impacts of LNG exports. Those positive benefits are often overlooked when one only focuses on the direct impact on natural gas and electricity costs alone.

3. Impact on Industry

Golden Pass and other LNG export projects can significantly benefit the petrochemical industry and its customers. The recent increase in domestic gas production has already led the U.S. petrochemical industry to announce significant expansions of petrochemical capacity, reversing a decades-long decline. GPP's proposed export could contribute to this development by creating greater incentives for domestic natural gas production.

As a result of the increased supply brought forth to meet LNG export demand, associated natural gas liquids ("NGLs") are extracted, both during production and conversion of natural gas to LNG. The additional feedstock of natural gas products that would be made

64 http://www.eia.gov/energyexplained/index.cfm?page=electricity_factors_affecting_prices

65 TPG study at 39; DMP study at 4.

66 TPG study at 39.

67 *Id.* at 39.

available will benefit the petrochemical industry and its customers. According to the DMP study, an average incremental 75,000 barrels a day of NGLs would be produced if 6 Bcf/d of LNG was exported, which is equivalent to a 3% increase in the current total U.S. NGLs production.[68] The DMP study goes on to explain "the significance of the NGLs production is that it further contributes to the comparative advantage the U.S. petrochemical industry has as a result of low natural gas and NGL prices over competitors in countries that have higher feedstock costs."[69] To estimate the economic benefits of the increased competitiveness of the U.S. petrochemical sector, the TPG study calculated the potential total expenditures and real gross product delivered from an enhanced petrochemical industry due to LNG exports. According to TPG, more than $8 billion of total expenditures and $3 billion of real gross product would result from the construction of new chemical facilities required to process incremental ethane associated with the proposed GPP facility.

The economic benefits of the potential new LNG facilities would extend beyond the petrochemical industry. Increased exploration and production of natural gas and associated liquids will generate direct benefits for U.S. industry. To measure the indirect benefits to U.S. industry, the TPG study quantified the total expenditures and the real gross product stemming from increased exploration and production of natural gas due to GPP LNG exports. In a typical year, the TPG study shows the total expenditures associated with enhanced exploration and production exceed $11 billion, while the real gross product increases by nearly $5 billion. The DMP study also examined the potential gross economic output of increased natural gas production and calculated a $5 to $7 billion per year benefit based on a range of economic

68 DMP study at 20.

69 *Id.* at 21.

multipliers.[70] These benefits of GPP LNG exports would be distributed broadly across the economy with over 50 percent of the economic gains benefiting sectors outside of construction and manufacturing.

4. Impact on U.S. Economy

Figure 6

Economic Benefits	
Investment	$10 billion
Project Life (Gross Product)	$31 billion
Construction	$20 billion
Operations	$11 billion
Annual Operations	$460 million
Taxes	$4.6 billion
Annual Operations	$56 million

Source: The Perryman Group

Golden Pass Products' world-scale investment could create approximately $31 billion in U.S. economic gains (gross product) over the life of the project. In addition to the effects of the proposed GPP export facility and exports on the supply and price of natural gas, GPP asked TPG to examine the potential impact of its proposed exports on the broader U.S. economy. Based on that examination, the GPP export project would contribute approximately $31 billion in U.S. gross product across the construction and operations of the facilities. About $20 billion in U.S. gross product would accrue across the construction period. During operations, the project would contribute about $460 million in gross product annually.[71] The economic benefit will be distributed broadly across the economy.

5. Impact on Regional Economy

The GPP export project is positioned to deliver significant local and regional economic benefits. The project will require a significant initial capital investment, with additional annual operational and maintenance expenditures over the life of the exports. GPP's project will create significant regional short-term economic activity during the development/construction phase, as well as during operations. TPG estimates that the total

70 DMP study at 18.

71 TPG study at 3.

cumulative impact of construction and the first twenty-five years of operation of the GPP export project on business activities (gross product) in Jefferson County and the surrounding region would be more than $11.5 billion.[72] Furthermore, the construction phase of the GPP export facility would support the region by creating approximately $4 billion in gross product in Jefferson County and the surrounding region.[73] Operations are projected to generate about $8 billion in additional gross product in the regional economy – about $300 million annually.[74]

The GPP export project would potentially improve personal income in the local/regional communities. The potential uplift in personal income would occur during the pre-operational/construction phase as well as the operations phase for the duration of the export authorization. According to the TPG Study, the cumulative contribution from pre-operational/construction and operations phases of the project would total more than $7 billion in personal income to Jefferson County and the surrounding impact area. Overall, the large and broad benefits would provide substantial benefits to the region.[75]

6. Fiscal Impact

The GPP export project would provide cumulative tax revenues for federal, state and local governments totaling about $4.6 billion across the life of the project.[76] The state and local taxes account for about half of the total tax revenues. The construction phase would generate about $3.2 billion in projected taxes; operations would bring annual increased tax revenue of approximately $56 million over the 25 years of the

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72 *Id.* at 30.

73 *Id.* at 23.

74 *Id.* at 28.

75 *Id.* at 30.

76 *Id.* at 3.

project.[77]

E. Domestic Energy Security

The proposed Golden Pass Products' LNG export project would be consistent with energy security in the U.S. In fact, LNG exports would enhance energy security by increasing opportunity for additional development of domestic energy resources to meet domestic needs and generate the benefits of U.S. LNG exports.

The primary consideration of energy security is "whether the public will have sufficient gas over the term of the authorization to meet its needs."[78] As discussed above, based on GPP's analysis of the impact of its proposed export project, together with other LNG export projects as reflected in the DMP study, U.S. domestic demand for natural gas will continue to be met over the twenty-five-year term of the proposed export authorization.

In the recent order authorizing Sabine Pass Liquefaction to export LNG to NFTA countries, the DOE/FE concluded that it was "persuaded that directionally, natural gas production associated with exports… will result in increased production that could be used for domestic requirements if market conditions warrant such use. Overall, this will tend to enhance U.S. domestic energy security."[79] The Massachusetts Institute of Technology study, *The Future of Natural Gas* (June 2011), recommended that "[t]he U.S. should support development of a global 'liquid' natural gas market with diversity of supply. A corollary is that the U.S. should not erect barriers to natural gas imports or exports."[80]

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77 *Id.*

78 *Sabine Pass Liquefaction*, Order No. 2961, at 34.

79 *Id.* at 35.

80 Massachusetts Institute of Technology, *The Future of Natural Gas,* at 157 (2011).

In addition, LNG exports will increase the opportunities for more robust development of energy resources, not only natural gas but also NGLs and associated oil resources that are also found in the certain gas formations. These new domestic NGLs and oil resources will reduce the need to import foreign oil, increase domestic liquids production, improve the balance of trade and benefit the American petrochemical industry and its customers.

Previously, the DOE/FE has recognized that increased domestic production of natural gas due to exports will increase production of NGLs.[81] While the domestic NGL market currently appears to be less well supplied, it nevertheless remains true that NGLs are used as home heating fuels, refinery blending and agricultural crop drying, and the U.S. petrochemical industry uses ethane in particular as a feedstock in numerous applications. New supplies of NGLs could also help to foster U.S. manufacturing, boosting economic output and creating jobs.[82]

F. International Impacts

Golden Pass Products would have favorable international effects, with resulting benefits for the U.S. Authorization of the GPP project also will result in international impacts that will benefit the U.S. in several ways. The following conclusions of DOE/FE when authorizing LNG exports to NFTA countries in *Sabine Pass Liquefaction,* Order No. 2961, are equally applicable here: (i) the export of natural gas produced in the U.S. will help to promote new international markets for natural gas, thereby encouraging the development of additional productive resources in this country (as discussed above) and internationally; (ii) augmentation of global natural gas supplies will support efforts by overseas electric power

81 *Sabine Pass Liquefaction*, Order No. 2961, at 36.

82 *See*, American Chemistry Council (ACC). "Shale Gas and new Petrochemicals Investment: Benefits for the Economy, Jobs, and U.S. Manufacturing," Economics and Statistics, ACC, March 2011, available at http://www.americanchemistry.com/ACC-Shale-Report.

generators to switch away from oil or coal, reducing global emissions of sulfur dioxides, nitrogen dioxides and carbon dioxides; and (iii) an improvement in natural gas supplies internationally will help certain countries that currently have limited sources of natural gas supplies to broaden and diversify their supply base.

Moreover, the findings of DOE/FE are supported by third parties. For example, a Brookings Institution study finds "… that U.S. LNG is likely to make a positive, albeit relatively small, contribution to the U.S. gross domestic product (GDP) [and] trade balance…."[83] It further finds that there is potential for positive foreign policy impacts from U.S. entry in the global gas market. *Id.*

1. Impact on U.S. Trade

GPP's proposed exports would help expand the benefits of U.S. trade. The U.S. has experienced large trade deficits for more than a decade (although the rise in U.S. exports after the economic crisis somewhat realigned the trade balance). In 2011, the U.S. trade deficit in goods and services was $558 billion, the highest since 2008 ($698.3 billion).[84] Authorizing the export of LNG will help increase the benefits of U.S. trade by allowing the U.S. to export some of its abundant natural gas. In authorizing previous gas export applications, including *Sabine Pass Liquefaction,* Order No. 2961, DOE/FE has recognized the positive role that LNG exports can have on U.S. trade with the destination countries.[85] Approval of GPP's request to export LNG will have the same positive benefits on U.S. trade.

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83 Brookings study, at vi.

84 U.S. Department of Commerce, Census Bureau, U.S. International Trade Data: Foreign Trade, http://www.census.gov/foreign-trade/statistics/highlights/annual.html

85 *See, e.g., ConocoPhillips*, FE Docket No. 09-92-LNG, Order No. 2731, at 10 (November 30, 2009); *Freeport LNG Development, L.P.*, FE Docket No. 08-70-LNG, Order No. 2644, at 12 (March 28, 2009); *Cheniere Marketing, Inc.*, FE Docket No. 08-77-LNG, Order No. 2651 at 14 (June 8, 2009); *Sabine Pass Liquefaction,* Order No. 2961 at 35-36.

2. Global LNG Trade

By providing access for U.S. production to global markets, GPP's export of LNG will provide an economic incentive for continued U.S. domestic production. As discussed above, while exports of domestic production may result in a modest increase in domestic U.S. gas prices, the supply response should limit price volatility and, over the long-term, provide a sustainable natural gas market in North America. The participation of the U.S. in the global LNG market based on competitive market forces is consistent with long-term U.S. policies supporting open markets and avoidance of unnecessary restrictions on trade. These benefits demonstrate that granting GPP's requested export authorization will not be inconsistent with, and indeed will benefit, both domestic and international U.S. interests.

G. Cumulative Impacts

In Order No. 2961, DOE/FE stated that it would "evaluate the cumulative impact of the instant authorization and any future authorizations for export authority when considering any subsequent application for such authority,"[86] to ensure that its authorized natural gas exports do not result in a "reduction in the supply of natural gas needed to meet essential domestic needs."[87] As discussed above, DOE/FE policy governing imports and exports of natural gas is based on the principle that the U.S. public interest is best served by allowing free-market competitive forces to shape the development of U.S. LNG exports. A fair, open and transparent playing field will empower projects to compete for market and supply, efficiently allocate capital, spur innovation, drive down costs and deliver the most value to the public interest. The unique challenges of LNG projects provide inherent checks and balances to moderate the pace

86 *Sabine Pass Liquefaction,* Order No. 2961, at 33.

87 *Id.* at 32.

and scale of developments in line with market needs. Because of these checks and balances, GPP respectfully submits that the cumulative impacts of export applications before DOE/FE will be moderated by the market.

1. Complexity of LNG Transactions

LNG projects require very large long-term commitments and highly complex commercial arrangements. LNG is an established and growing global business that links large gas resources to markets over long distances. For LNG supply to be competitive in the market, LNG projects rely on economies of scale. Large quantities of LNG are transported long distances requiring large amounts of capital. The scale of investment is then recouped over the project life, typically over a number of decades. The complex commercial arrangements underpinning these investments are unique to each project and prospective customers. Furthermore, LNG buyers must have access to a customer base that allows the buyer to make purchase commitments spanning the project life. Allowing buyers and investors to freely compete for U.S. LNG exports will allow the market to efficiently determine which projects are funded and built.

2. Design Complexity

The complex technical design of LNG projects is another factor limiting LNG project developments and thus the pace of LNG exports from the U.S. Technical designs of LNG projects must take into account an array of variables unique to technical factors specific to the project, including liquefaction, shipping and regasification, as well as constraints in labor, vendor and construction markets. Natural gas feedstock is supplied to the liquefaction facilities via a pipeline that may require a new or modified pipeline network. Natural gas supplies must be processed and treated in advance of the liquefaction to remove gas inerts (*e.g.*, water, carbon

dioxide, etc.) that require a project-specific gas processing unit. LNG carriers are often custom-designed and delivered for each LNG project. Unlike crude oil, there is limited ability to charter short-term LNG carriers as the majority of the LNG carriers are under long-term charter. The technical design is typically selected based on a rigorous "gate" process with final engineering, procurement and construction contracts awarded when the project reaches its final investment decision. In parallel, all of the required engineering to secure regulatory permits and robust environmental reviews must be completed in advance of the final gate.

3. Complex Project Management

The execution of LNG projects requires project management of several highly complex concurrent projects; this caliber of project management skill is a niche specialty. Once the final engineering designs are completed and the project is funded, LNG project construction includes the simultaneous construction of several complex projects. The coordination of the gas treatment, liquefaction, modifications to existing infrastructure and ship construction programs requires a comprehensive management system to ensure the project is delivered according to plan. In parallel, the regulatory permits, commercial arrangements, compliance and implementation procedures need to be developed. As construction activities conclude, each element in the chain must undergo a series of operational readiness tests to verify the design meets the rigorous technical and safety specifications. Each element is then commissioned.

The size of LNG projects and visible construction programs will provide the market with transparent signals to anticipate LNG exports.[88] A rigorous project execution process is required to deliver LNG projects in an environmentally sound manner and provides the necessary information to dampen the impact to the natural gas market.

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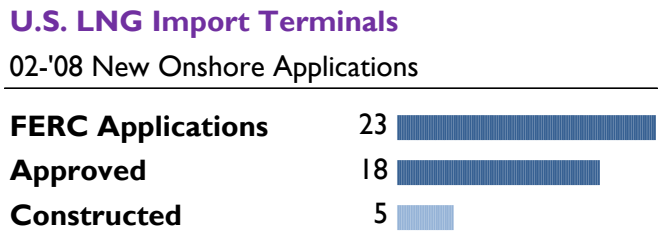
88 DMP study at 4, 23.

4. The Import Terminals Experience

GPP expects market forces also will play a key role in determining the number of export facilities that will be constructed and operated. The recent history of regasification terminal projects in the U.S. is a particularly significant example of how market forces ultimately dictate the number of facilities that are built. Of the twenty-three new onshore regasification terminals that applied for FERC Section 3 certification from 2003 to 2006, eighteen were granted. Of those eighteen FERC-authorized new projects, however, fewer than one in four new onshore terminals were constructed.[89] As a result, only 9.7 Bcf/d, or about 29%, of the 33.6 Bcf/d of capacity proposed in applications, was built. Figure 7 graphically depicts how the market worked to limit the number of import terminals.

Figure 7



By allowing market forces to dictate the development of these projects, the developers of regasification infrastructure were in a position to react to domestic market signals and significantly reduced development in a very short time.

GPP respectfully submits that the recent history of LNG import facilities demonstrates that market principles will best address cumulative impact concerns related to exports of LNG. Competition and the merits of each project will determine the growth of U.S. exports that best

[89] In addition, approximately 2.6 MMdth/d of capacity was added to the existing LNG import terminals owned and operated by Dominion Cove Point LNG, LP, Southern LNG, Inc., and Trunkline LNG Company, LLC.

serves the public interest.

VII. CORPORATE POWERS AND AGREEMENTS

In accordance with Section 590.202(c) of the regulations, this Application attaches a statement, including a signed opinion of legal counsel, showing that the proposed export of natural gas is within the corporate powers of GPP. As stated above, GPP has not entered into any contracts to export LNG as of this time.

VIII. ENVIRONMENTAL REVIEW

As previously discussed, GPP proposes to construct an LNG export terminal at the site of the existing GPLNG import terminal. The GPP export project will be designed to minimize or mitigate environmental or other adverse impacts. GPP believes that the proposal does not constitute a major federal action significantly affecting the quality of the human environment, within the meaning of the National Environmental Policy Act ("NEPA") of 1969 (42 U.S.C. 4321, *et seq*.). GPP plans to file an application with the FERC for the necessary authorizations to construct and operate the GPP export facility. The FERC will complete an environmental review under NEPA prior to granting the requested authorization. GPP cannot engage in the LNG exports for which it requests authorization in this Application until after the FERC has granted its NGA section 3 authorization and the necessary facilities have been constructed and placed in-service. GPP accordingly requests that the DOE/FE issue a conditional order authorizing the export of LNG as described in this Application, conditioned on completion of the environmental review by FERC.

IX. EXHIBITS

The following exhibits are attached hereto and incorporated by reference herein:

Exhibit A: Verification

Exhibit B: Opinion of Counsel

Exhibit C: Economic Impact of LNG Exports from the United States, Deloitte MarketPoint, August 2012

Exhibit D: "The Socioeconomic Impact of Authorizing Exports of Liquefied Natural Gas from the Proposed Golden Pass Products LLC Facilities in Sabine Pass, Texas, on Business Activity in Jefferson County, the Surrounding Region, and the United States," The Perryman Group, August, 2012.

X. CONCLUSION

WHEREFORE, for the reasons set forth above, GPP requests authorization to export domestically produced LNG by ocean-going vessel to any NFTA country that currently has, or in the future develops, the capacity to import natural gas, and with which the U.S. does not prohibit trade, up to the equivalent of 740 Bcf per year, for a 25-year term commencing on the earlier of (1) the date of first export or (2) seven years from the date the requested authorization is issued; to make LNG sales for export on its own behalf and as agent for third parties, pursuant to one or more long-term contracts; and to provide tolling services for the export of LNG to third parties. GPP respectfully requests that the DOE/FE authorize the export as proposed in the Application.

Respectfully submitted,

Golden Pass Products LLC

William D. Collins by KMS

William D. Collins
President
Golden Pass Products, LLC
Three Allen Center, Suite 802
333 Clay Street
Houston, TX 77002
(713) 860-6323

Authorized Representative for
Golden Pass Products LLC

EXHIBIT A:

Verification

STATE OF TEXAS)
)
) **SS:**
)
HARRIS COUNTY)

VERIFICATION

William D. Collins, being first duly sworn on his oath deposes and says: that he is President of Golden Pass Products LLC; that he is duly authorized to make this Verification; that he has read the foregoing application and is familiar with the contents thereof; that all the statements and matters contained therein are true and correct to the best of his information, knowledge and belief; and that he is authorized to execute and file the same with the United States Department of Energy.

WILLIAM D. COLLINS
PRESIDENT

Sworn to and subscribed before me this 25th day of October 2012.

Lauren W. Harrison
Notary Public for the State of Texas

My Commission Expires: 8/17/2015

LAUREN W. HARRISON
Notary Public
STATE OF TEXAS
My Comm. Exp. Aug. 17, 2015

EXHIBIT B:

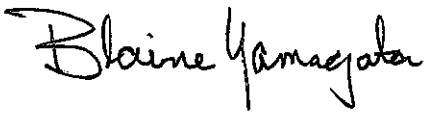
Opinion of Counsel

OPINION OF COUNSEL

This Opinion dated the 25th day of October, 2012 is submitted pursuant to the Regulations of the Department of Energy/Office of Fossil Energy at 10 C.F.R. § 590.202(c). The Undersigned is counsel for Golden Pass Products LLC.

I have reviewed the corporate documents for Golden Pass Products LLC and the foregoing Application, and it is my opinion that the export of domestically produced natural gas as liquefied natural gas as proposed in the foregoing Application is within Golden Pass Products LLC's corporate powers.

Respectfully submitted,



Blaine Yamagata
Vice President and General Counsel
Golden Pass Products LLC

EXHIBIT C:

Economic Impact of LNG Exports from the United States, Deloitte MarketPoint, August 2012

Deloitte.

Deloitte MarketPoint.

Economic Impact of LNG Exports from the United States

Contents

Executive Summary	1
Overview of Deloitte MarketPoint Reference Case	5
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Comparison of Results to Other Studies	22
Appendix: DMP's World Gas Model and Data	24

Executive summary

Deloitte MarketPoint LLC (DMP) has been engaged by Golden Pass Products LLC ("Golden Pass") to provide an independent and objective assessment of the potential economic impacts of LNG exports from the United States. This report includes the results of DMP's analysis which was concluded in July, 2012. As of June 15, 2012, the United States Department of Energy (DOE) has received a number of LNG export applications totaling almost 19 billion cubic feet per day (Bcfd) of exports to Free Trade Agreement (FTA) countries[1] including 13 Bcfd to non-FTA countries, if all were to be approved.

While export applications do not guarantee that a liquefaction facility will be built, there at least exists a possibility that a sizeable volume of LNG will be exported from the U.S. and questions turn to the price and economic impacts of LNG exports from the U.S. A fundamental question is: whether there are sufficient domestic natural gas supplies for both domestic consumption and LNG exports. That is, does the U.S. need the gas for its own consumption or does the U.S. possess sufficiently abundant gas volumes to provide for both domestic consumption and exports? The DOE is unlikely to approve exports unless there is strong evidence of the adequacy of domestic supply. The next question is: how much will U.S. natural gas prices increase as a result of LNG exports?

[1] The United States has FTAs in force with 18 countries. However, among these countries, only South Korea is a major LNG importer.

In our view, simple comparisons of total available domestic resources to projected future consumption are insufficient to adequately analyze the economic impact of LNG exports. The real issue is not one of volume, but of price impact. In a free market economy, price is arguably the best measure of scarcity, and if price is not significantly affected, then scarcity and shortage of supply do not occur. In this report, we demonstrate that the magnitude of domestic price increase that results from exports of natural gas in the form of LNG is quite small.

However, other projections, including those developed by the DOE's Energy Information Administration (EIA), estimate substantially larger price impacts from LNG exports than projected by our analysis. We shall compare different projections and provide our assessment as to why the projections differ. A key determinant to the estimated price impact is the supply response to increased demand including LNG exports. To a large degree, North American gas producers' ability to increase productive capacity in anticipation of LNG export volumes will determine the price impact. After all, there is widespread agreement of the vast size of the North American natural gas resource base among the various studies and yet estimated price impacts vary widely. If one assumes that producers will fail to keep pace with demand growth, including LNG exports, then the price impact of LNG exports, especially in early years of operations, will be far greater than if they anticipate demand and make supplies available as they are needed. Hence, the proper model of market supply-demand dynamics is required to accurately project price impacts.

DMP applied its integrated North American and World Gas Model (WGM or Model) to analyze

the price and quantity impacts of LNG exports on the U.S. gas market.[2] The WGM projects monthly prices and quantities over a 30 year time horizon based on demonstrated economic theories. It includes disaggregated representations of North America, Europe, and other major global markets. (However, for this analysis, we only considered impacts in North America.) The WGM solves for prices and quantities simultaneously across multiple markets and across multiple time points. Unlike many other models which compute prices and quantities assuming all parties work together to achieve a single global objective, the WGM applies fundamental economic theories to represent self-interested decisions made by each market "agent" along every stage of the supply chain. It rigorously adheres to accepted microeconomic theory to solve for supply and demand using an "agent based" approach. More information about the WGM is included in the Appendix.

Vital to this analysis, the WGM represents fundamental producer decisions regarding when and how much reserves to develop given the producer's resource endowments and anticipated forward prices. This supply-demand dynamic is particularly important in analyzing the impact of demand changes (e.g., LNG exports) because without it, the answer will likely greatly over-estimate the price impact. Indeed, producers will anticipate the export volumes and make production decisions accordingly. LNG exporters might back up their multi-billion dollar projects with long-term supply contracts, but even if they do not, producers will anticipate future prices and demand growth in their production decisions. Missing this supply-demand dynamic is tantamount to assuming the market will be surprised and unprepared for the volume of exports and have to ration fixed supplies to meet the required volumes. Static models assume a fixed supply volume (i.e., productive capacity) during each time period and therefore are prone to over-estimate the price impact of a demand change. Typically, users have to override this deficiency by manually adjusting supply to meet demand. If insufficient supply volumes are added to meet the incremental demand, prices could increase until enough supply volumes are added to eventually catch up with demand. Instead, the WGM uses sophisticated depletable resource modeling to represent producer decisions. The model uses a "rational expectations" approach, which assumes that today's drilling decisions affect tomorrow's price and tomorrow's price affects today's drilling decisions. It captures the market dynamics between suppliers and consumers.

It is well documented that shale gas production has grown tremendously over the past several years. According to the EIA, shale gas production climbed to over 35% of the total U.S. production in the beginning of 2012.[3] By comparison, shale gas production was only about 5% of the total U.S. production in 2006, when improvements in shale gas production technologies (e.g., hydraulic fracturing, horizontal drilling) were starting to significantly reduce production costs. However, there is considerable debate as to how long this trend will continue and how much will be produced out

[2] This report was prepared for Golden Pass Products LLC ("Client") and should not be disclosed to, used or relied upon by any other person or entity. Deloitte Marketpoint LLC shall not be responsible for any loss sustained by any such use or reliance. Please note that the analysis set forth in this report is based on the application of economic logic and specific assumptions and the results are not intended to be predictions of events or future outcomes. Client may, however, submit this report to the U.S. Department of Energy and the Federal Energy Regulatory Commission for their use in support of Client's liquefied natural gas ("LNG") export application.

[3] Computed from the EIA's Natural Gas Weekly Update for week ending June 27, 2012.

of each shale gas basin. Rather than simply extrapolating past trends, a rather inaccurate method, WGM projects production based resource volumes and costs, future gas demand, particularly for power generation, and competition among various sources in each market area. It computes incremental sources to meet a change in demand and the resulting impact on price.

Based on our existing model and assumptions, which we will call the "Reference Case", we developed five cases with different LNG export volumes to assess the impact of LNG exports. The five LNG export scenarios and their assumed export volumes by location are shown in Figure 1.

All cases are identical except for the assumed volume of LNG exports. In the LNG export cases, we represented LNG exports as demands at various model locations generally corresponding to the locations of proposed export terminals (e.g., Golden Pass and Freeport terminals in Texas and Sabine Pass and Lake Charles in Louisiana) that have applied for a DOE export license. The cases are not intended as forecasts of which export terminals will be built, but rather to test the impact given alternative levels of LNG exports. Furthermore, the export volumes are assumed to be at full capacity for the entire 20 year period beginning in 2016. Since our existing model already represented these import LNG terminals, we only had to represent exports by adding demands near each of the terminals. Comparing results of LNG export cases to the Reference Case, we projected how much the various levels of LNG exports would increase domestic prices and affect production and flows. For purposes of assessing impacts, all exports were assumed to flow at full utilization for a twenty year period from 2016 to 2035.

Given the model's assumptions and economic logic, the WGM projects prices and volumes for over 200 market hubs and represents every state in the United States. We can examine the impact at each location and also compute a volume-weighted average U.S. "citygate" price by weighting price impact by state using the state's demand. Impact on the U.S. prices increase along with the volume of exports. As shown in Figure 2, the impact on average U.S. citygate prices for the assumed years of operation (2016 to 2035) ranged from under 1% in the 2 Bcfd (Golden Pass only) case to about 5% in the 12 Bcfd case. The table below shows the percentage change to the projected average U.S. citygate price and also at the Henry Hub and New York under various LNG export volumes.

As the table shows, the impact is highly dependent on location. The impact on the price at Henry Hub, the world's most widely used benchmark for natural gas prices, is significantly higher than the national average. The reason is that the Henry Hub, located in Louisiana, is in close proximity to the prospective export terminals, which are primarily located in the U.S. Gulf of Mexico region. Since there are so many cases that were analyzed, we have elected to primarily describe results of the 6 Bcfd export

Figure 1: LNG export scenarios

Terminal	Golden Pass Only	Golden Pass + Sabine Pass	6 BCFD	9 BCFD	12 BCFD
Lake Charles			2.0	2.0	3.0
Golden Pass	2.0	2.0	2.0	2.0	2.0
Sabine Pass		2.2	2.0	3.0	4.0
Other Gulf Texas				1.0	2.0
Cove Point				1.0	1.0
Total	2.0	4.2	6.0	9.0	12.0

case since it is the middle case. The impacts are roughly proportional to the export volumes. In the 6 Bcfd export case, the impact on the Henry Hub price is an increase of 4.2 % over the Reference Case. Generally, the price impact in markets diminishes with distance away from export terminals as other supply basins besides those used to feed LNG exports are used to supply them. Distant market areas, such as New York and Chicago, experience only about half the price impact as at the Henry Hub. Focusing solely on the Henry Hub or regional prices around the export terminals will greatly overstate the total impact on the U.S. consumers.

The results show that if exports can be anticipated, and clearly they can with the public application process and long lead time required to construct a LNG liquefaction plant, then producers, midstream players, and consumers can act to mitigate the price impact. Producers will bring more supplies online, flows will be adjusted, and consumers will react to price change resulting from LNG exports.

According to our projections, even 12 Bcfd of LNG exports are projected to increase the average U.S. citygate gas price by only 4.9% on average over a twenty year period (2016-35). This indicates that the projected level of exports is not likely to induce scarcity, shortage, or any significant deleterious effect on domestic markets. The domestic resource base is large enough to absorb the incremental volumes required by LNG exports without a significant increase to future production costs. Provided that the U.S. natural gas industry can make the supplies available by the time LNG export terminals are ready for operation, then the price impact will likely reflect the minimal change in production cost. As the industry has shown in the past several years, it is highly capable of responding to market signals and developing supplies as needed. Furthermore, the North American energy market is highly interconnected so any change in prices due to LNG exports from the U.S. will cause the entire market to re-equilibrate, including gas fuel burn for power generation and net imports from Canada and Mexico. Hence, the entire North American energy market will in effect work in tandem to mitigate the price impact of LNG exports from the U.S.

Figure 2: Impact of LNG exports on U.S. prices

Export Volume	Average US Citygate	Henry Hub	New York
2 Bcfd (GP Only)	0.7%	0.8%	0.5%
4.2 Bcfd (GP + SP)	1.5%	2.3%	1.3%
6 Bcfd	2.4%	4.2%	2.0%
9 Bcfd	3.6%	5.9%	3.5%
12 Bcfd	4.9%	8.1%	4.4%

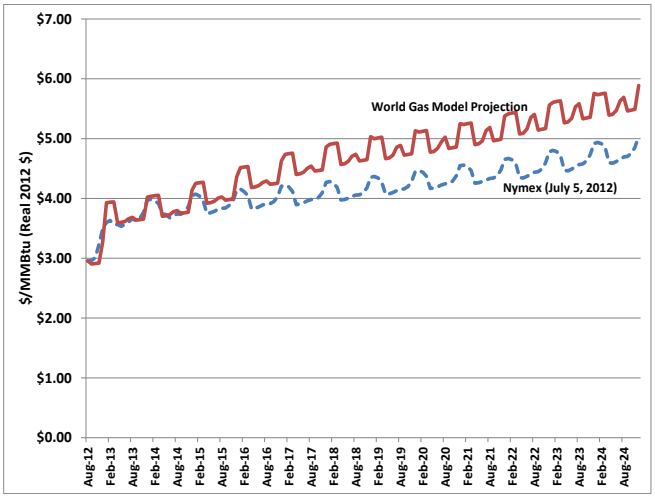
Overview of Deloitte MarketPoint Reference Case

The WGM Reference Case assumes a "business as usual" scenario including no LNG exports from the United States. U.S. gas demand growth rates for all sectors except for electricity were based on EIA's Annual Energy Outlook (AEO) 2011 projection, since the AEO 2012 full report was not available at the study start time. Our gas demand for power generation is based on projections from the Deloitte MarketPoint's (DMP) electricity model, which is integrated with our WGM. (There is no intended advocacy or prediction of these events one way or the other. Rather, we use these assumptions as a frame of reference. The impact of LNG exports could easily be tested against other scenarios, but the overall conclusion would be rather similar).

In the Reference Case, natural gas prices are projected to rebound from current levels and continue to strengthen over the next two decades, although nominal prices do not return to the peak levels of the mid-to-late 2000's until after 2020. In real terms (i.e., constant 2012 dollars), benchmark U.S. Henry Hub spot prices are projected by the WGM to increase from currently depressed levels to $5.00 per MMBtu in 2020, before rising to $6.49 per MMBtu in 2030 in the Reference Case scenario.

The WGM Reference Case projection of Henry Hub prices is compared to the Nymex futures prices in Figure 3. (The Nymex prices, which are the dollars of the day, were deflated by 2.0%[4] per year to compare to our projections, which are in real 2012 dollars.) Our Henry Hub price projection is similar to the Nymex prices in the near-term but rises above it in the longer term. Bear in mind that our Reference Case by design assumes no LNG exports whereas there probably is some expectation of LNG exports from the U.S. built into the Nymex prices. Under similar assumptions, the difference between our price projection and Nymex likely would be even higher. Hence, our Reference Case would represent a fairly high price projection even

Figure 3: Comparison between projected Henry Hub from the WGM and Nymex



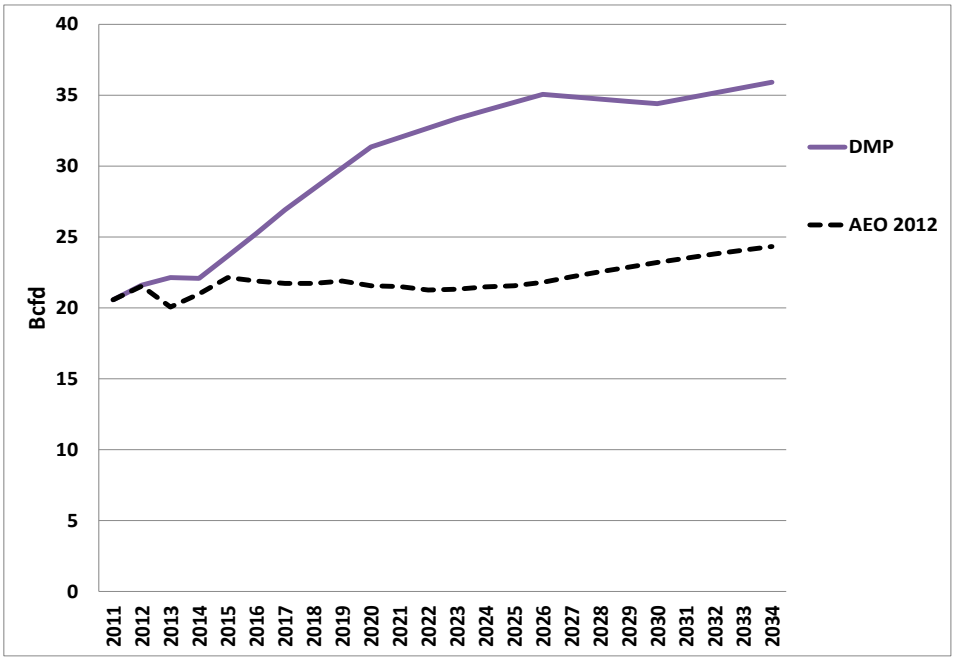
[4] Approximately the average consumer price index over the past 5 years according to the Bureau of Labor Statistics.

without LNG exports.

One possible reason why our price projection in the longer term is higher than market expectation, as reflected by the Nymex futures prices, is because of our projected rapid increase in gas demand for power generation. Based on our electricity model projections, we forecast natural gas consumption for electricity generation to drive North American natural gas demand higher during the next two decades.

As shown in Figure 4, the DMP projected gas demand for U.S. power generation gas is far greater than the demand predicted by EIA's Annual Energy Outlook 2012, which forecasts fairly flat demand for power generation. In the U.S., the power sector, which accounts for nearly all of the projected future growth, is projected to increase by about 50% (approximately 11 Bcfd) over the next decade. Our integrated electricity model projects that natural gas will become the fuel of choice for power generation due to a variety of reasons, including: tightening application of existing environmental regulations for mercury, NOx, and SOx; expectations of ample domestic gas supply at competitive gas prices; coal plant retirements; and the need to back up intermittent renewable sources such as wind and solar to ensure reliability. Like the EIA's AEO, our projection does not assume any new carbon legislation in the Reference Case.

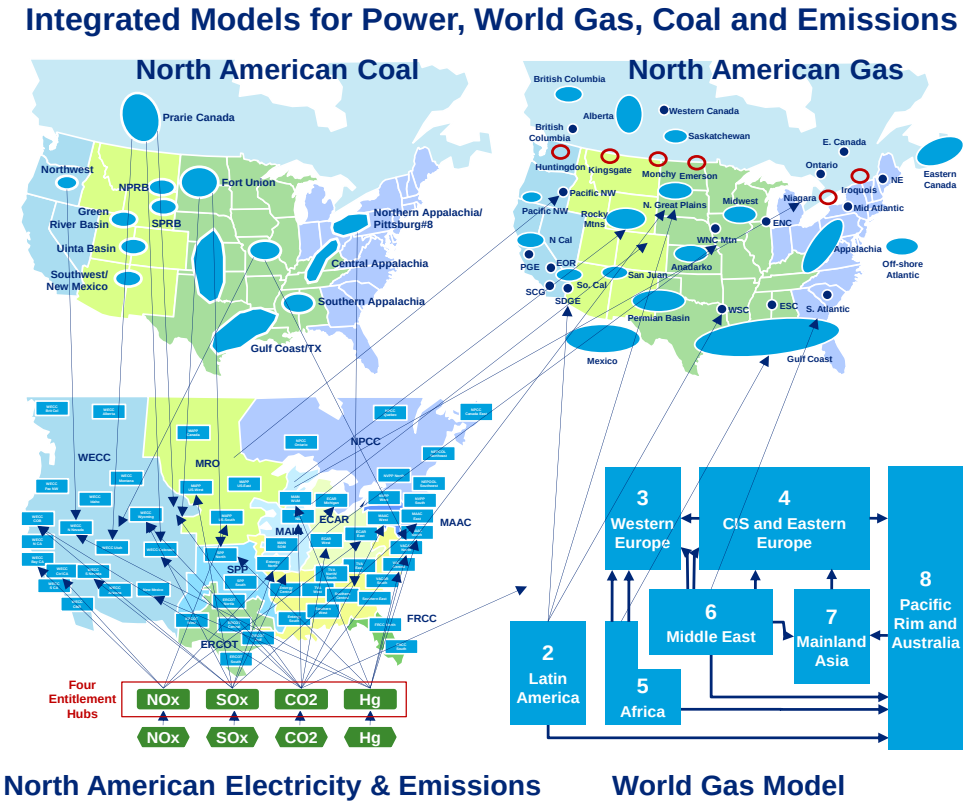
Figure 4: Comparison of projections of the U.S. gas demand for power generation



Our electricity model, fully integrated with our gas (WGM) and coal models, contains a detailed representation of the North American electricity system including environmental emissions for key pollutants (CO2, SOx, NOx, and mercury). The integrated structure of models is shown in Figure 5. The electricity model projects electric generation capacity addition, dispatch and fuel burn based on competition among different types of power generators given a host of factors including plant capacities, fuel price, heat rates, variable costs, and environmental emissions costs. This integration captures the global linkages and also the inter-commodity linkages. Integrating gas and electricity is vitally important because U.S. natural gas demand growth will be driven almost entirely by the electricity sector, which is projected to grow at substantial rates.

Hence, the WGM projections include the impact of increased natural gas demand for electricity generation, which competes with LNG exports for domestic supplies. It is a conservative case in that the WGM would be generally less favorable to the question of LNG export than if we had assumed a lower US gas demand, which would likely make more supply available for LNG export and lessen the price impact. Higher gas demand would increase the projected prices and quantity impacts of LNG export. However, the real issue is not the absolute price of exported gas, but rather the price impact resulting from the LNG exports. The absolute price of natural gas will be determined by a number of supply and demand factors besides LNG exports.

Figure 5: DMP North American Representation



Buffering the price impact of LNG exports is the large domestic resource base, particularly shale gas which we project to be an increasingly important component of domestic supply. As shown in Figure 6, the Reference Case projects shale gas production, particularly in the Marcellus Shale in Appalachia and the Haynesville Shale in Texas and Louisiana, to grow and eventually become the largest component of domestic gas supply. Increasing U.S. shale gas output bolsters total domestic gas production, which grows from about 66 Bcfd in 2011 to almost 79 Bcfd in 2018 before tapering off.

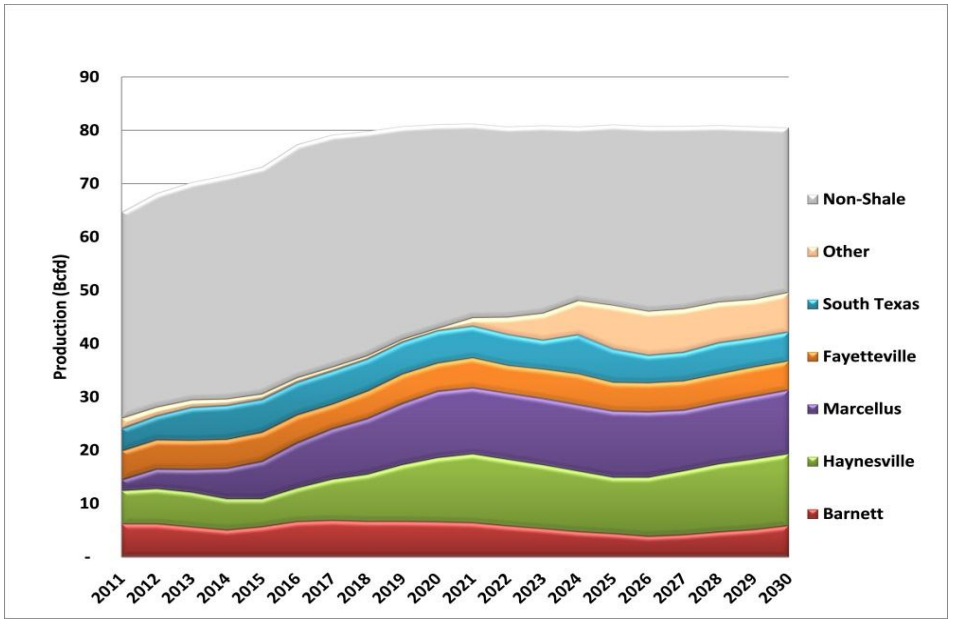
The growth in production from a large domestic resource base is a crucially important point and consistent with fundamental economics. Most upstream gas industry observers today believe that there is a very large quantity of gas available to be produced in the shale regions of North America at a more or less constant price. They believe, de facto, that natural gas supply is highly "elastic," i.e., the supply curve is very flat.

A flattening supply curve is entirely consistent with the resource pyramid diagram that the United States Geological Survey and others have postulated. At the top of the pyramid are high quality gas supplies which are low cost but also are fairly scarce. As you move down the pyramid, the costs increase but the supplies are more plentiful. This is another interpretation of our supply curve which has relatively small amounts of low cost supplies but as the cost increases, the supplies become more abundant.

Gas production in Canada is projected to decline over the next several years, reducing exports to the U.S. and continuing the recent slide in production out of the Western Canadian Sedimentary Basin. However, Canadian production is projected to ramp up in the later part of this decade with increased production out of the Horn River and Montney shale gas plays in Western Canada. Further into the future, the Mackenzie Delta pipeline may begin making available supplies from Northern Canada. Increased Canadian production makes more gas available for export to the U.S.

Rather than basing our production projections solely on the physical decline rates of producing fields, the WGM considers economic displacement as new, lower cost supplies force their way into the market. The North American natural gas system is highly integrated so Canadian supplies can easily access U.S. markets when economic.

Figure 6: U.S. gas production by type



Increasing production from major shale gas plays, many of which are not located in traditional gas-producing areas, has already started to transform historical basis relationships (the difference in prices between two markets) and the trend is projected to continue during the next two decades. Varying rates of regional gas demand growth, the advent of new natural gas infrastructure, and evolving gas flows may also contribute to changes in regional basis, although to a lesser degree.

Most notably, gas prices in the Eastern U.S., historically the highest priced region in North America, could be dampened by incremental shale gas production within the region. Eastern bases to Henry Hub are projected to sink under the weight of surging gas production from the Marcellus Shale. Indeed, the flattening of Eastern bases is already becoming evident. The Marcellus Shale is projected to dominate the Mid-Atlantic natural gas market, including New York, New Jersey, and Pennsylvania, meeting most of the regional demand and pushing gas through to New England and even to South Atlantic markets. Gas production from Marcellus Shale will help shield the Mid-Atlantic region from supply and demand changes in the Gulf region. Pipelines built to transport gas supplies from distant producing regions — such as the Rockies and the Gulf Coast — to Northeastern U.S. gas markets may face stiff competition. The result will be displacement of volumes from the Gulf which will depress prices in the Gulf region. Combined with the growing shale production out of Haynesville and Eagle Ford, the Gulf region is projected to continue to have plentiful production and remain one of the lowest cost regions in North America.

The dynamic nature of the natural gas market is paramount to understanding the impact of LNG exports. If LNG is exported from any particular location, the entire North American natural gas system will potentially reorient production, affecting basis differentials and flows. Basis changes are not fixed and invariant to LNG exports or other supply and demand changes. On the contrary, LNG exports will likely alter basis differentials and ensure economically efficient backfill and efficient prices.

Potential impact of LNG exports

Impact on natural gas prices

Five LNG export cases have been analyzed within this report: Golden Pass only (2 Bcfd), Golden Pass and Sabine Pass (4.2 Bcfd), and 6 Bcfd, 9 Bcfd and 12 Bcfd exports. Each case was run with the DMP's integrated North American Power and Gas Models in order to capture the dynamic interactions across commodities.

If we take the midpoint case of 6 Bcfd of LNG exports, and given our other basic assumptions, the WGM projects LNG exports will cause a weighted-average price impact of $0.15/MMBtu on U.S. citygate prices from 2016 to 2035. The $0.15/MMBtu increase represents a 2.4% increase in the projected average U.S. citygate gas price of $6.17/MMBtu over this time period. The projected increase in Henry Hub gas price is $0.25/MMBtu during this period. It is important to note the variation in price impact by location. The impact at the Henry Hub will be much greater than the impact in other markets more distant from export terminals.

For all five export cases considered, the projected weighted average natural gas price increase on US citygate, and Henry Hub, from 2016 through 2035 is shown in Figure 7.

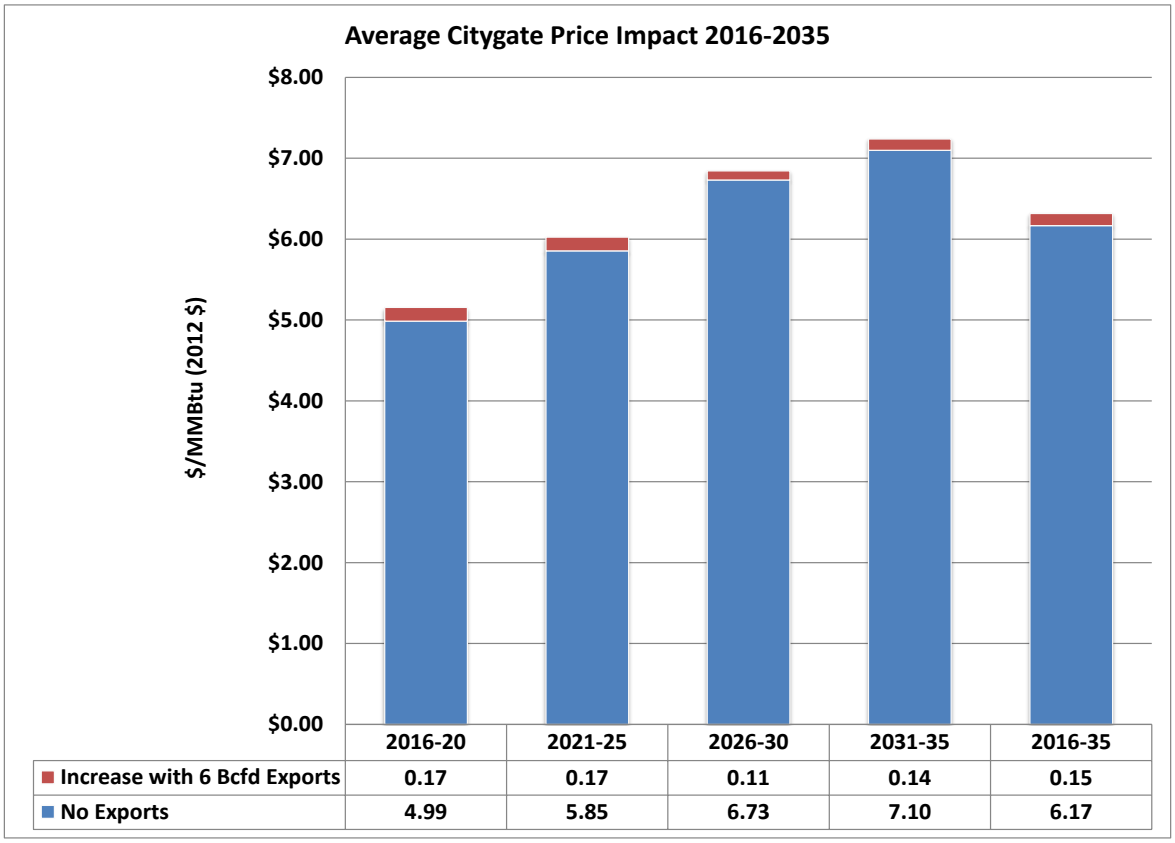
To put the impact in perspective, Figure 8 shows the price impact of the midpoint 6 Bcfd case on top of projected Reference Case U.S. average citygate prices over a twenty year period. The height of the bars represents the projected price with LNG exports.

The small incremental price impact may not appear intuitive or expected to those familiar with market traded fluctuations in natural gas prices. For example, even a 1 Bcfd increase in demand due to sudden weather changes can cause near term traded gas prices to surge because in the short-term, both supply and demand are highly inelastic (i.e., fixed quantities). However, in the long-term, producers can develop more reserves in anticipation of demand growth, e.g. due to LNG exports. Indeed, LNG export projects will likely be linked in the origination market to long-term supply contracts, as well as long-term contracts with LNG buyers. There will be ample notice and time in advance of the LNG exports in order to

Figure 7: Price impact by scenario ($/MMBtu)

Export Volume	Average US Citygate	Henry Hub	New York
2 Bcfd (GP Only)	$ 0.04	$ 0.04	$ 0.03
4.2 Bcfd (GP + SP)	$ 0.09	$ 0.14	$ 0.08
6 Bcfd	$ 0.15	$ 0.25	$ 0.12
9 Bcfd	$ 0.22	$ 0.34	$ 0.22
12 Bcfd	$ 0.30	$ 0.48	$ 0.28

Figure 8: Impact of LNG exports on average U.S. citygate gas prices



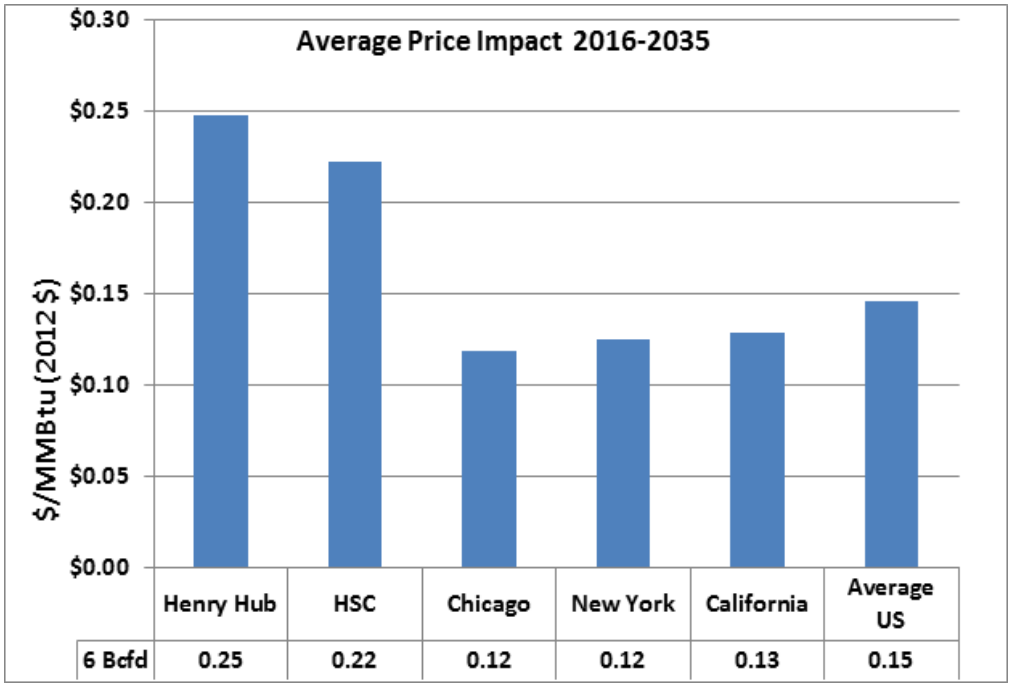
	2016-20	2021-25	2026-30	2031-35	2016-35
Increase with 6 Bcfd Exports	0.17	0.17	0.11	0.14	0.15
No Exports	4.99	5.85	6.73	7.10	6.17

Source: World Gas Model (July 2012)

make supplies available. Hence, our projected price impact primarily reflects the estimated change in the production cost of the marginal gas producing field with the assumed export volumes. Therefore, under our long-term equilibrium modeling assumptions, long-term changes to demand may be anticipated and incorporated into supply decisions. The built-in market expectations allows for projected prices to come into equilibrium smoothly over time.

As previously stated, the model projected price impact varies by location as shown in Figure 9. As expected, the price impact diminishes with distance from export terminals. For all cases the impact is greatest at Henry Hub, situated near most export terminals. For the midpoint case of 6 Bcfd, the impact at the Houston Ship Channel is nearly as much as Henry Hub, at $0.22/MMBtu on average from 2016 to 2035. By the time you move to downstream markets such as Chicago and New York, the price impact is generally only about $0.12/MMBtu on average from 2016 to 2035. The impact at the California border is slightly greater, at $0.13/MMBtu, because they are directly connected to the Permian Basin and other Texas supplies.

Figure 9: Price impact varies by location in 6 Bcfd export case (average 2016-35)



Source: World Gas Model (July 2012)

Impact on electricity prices

The projected impact on electricity prices is even smaller than the projected impact on gas prices. DMP's integrated power and gas model allows us to estimate incremental impact on electricity prices resulting from LNG export assumptions, as natural gas is also a fuel for generating electricity. Since our integrated model represents the geographic linkages between the electricity and natural gas systems, we can compute the impact of LNG exports in local markets (local to LNG exports) where the impact would be greatest.

A similar comparison for electricity shows that projected electricity prices increase by 1.1% in Southern Louisiana where most of the LNG exports are assumed to occur. The impact on electricity prices is much less than the 3.45% Southern Louisiana (Henry Hub) gas price impact. For power markets in other regions, the electricity price impact is much lower, because the gas price impact is much lower. For example, Midwest gas prices increase by 1.7% and result in electricity prices increasing by 1.0%.

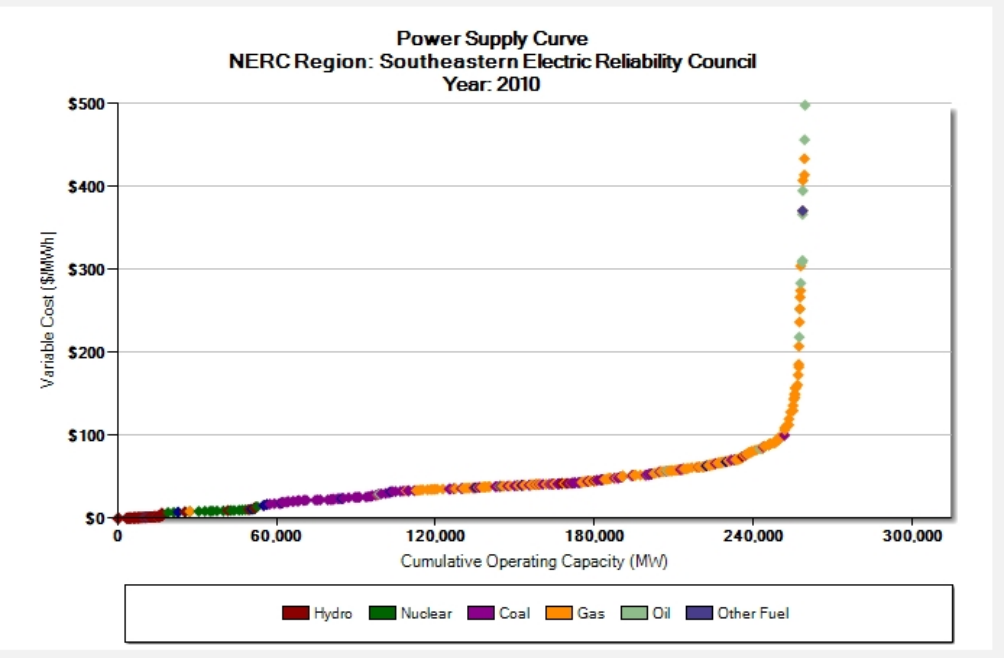
A key reason why the price impact for electricity is less than that of gas is that electricity prices will only be directly affected by an increase in gas prices when gas-fired generation is the marginal source of power generation. That is, only if gas-fired generation is the last level in the generation stack needed to service the final amount of electricity load required. When gas-fired generation is lower cost than the marginal source, then a small increase in gas price will only impact electricity price if it is sufficient to drive gas-fired generation to be the marginal source of generation. If gas-fired generation is already more expensive than the marginal source of generation, then an increase in gas price will not impact electricity price, as gas-fired generation is simply not being utilized.

If gas-fired generation is the marginal source, then electricity price will increase with gas price,

but only up to the point that some other source can displace it as marginal source. Every power region has numerous competing power generation plants burning different fuel types, which will mitigate the price impact of an increase in any one fuel type. Moreover, within DMP's integrated power and gas model, fuel switching, between coal, nuclear, gas, hydro, wind and oil, is captured as part of the modeling.

Figure 10 shows the power supply curve for the Southeastern Electric Reliability Council (SERC) region which includes Louisiana. The curve plots the variable cost of generation and capacity by fuel type. Depending on where the demand curve intersects the supply curve, a particular fuel type will set the electricity price. During extremely low demand periods, hydro, nuclear or coal plants will likely set the price. An increase in gas price during these periods would not impact electricity price in this region because gas-fired plants are typically not utilized. Since the marginal source sets the price, a change in gas price under these conditions would not affect power prices.

Figure 10: Power supply curve for SERC region



Source: SNL

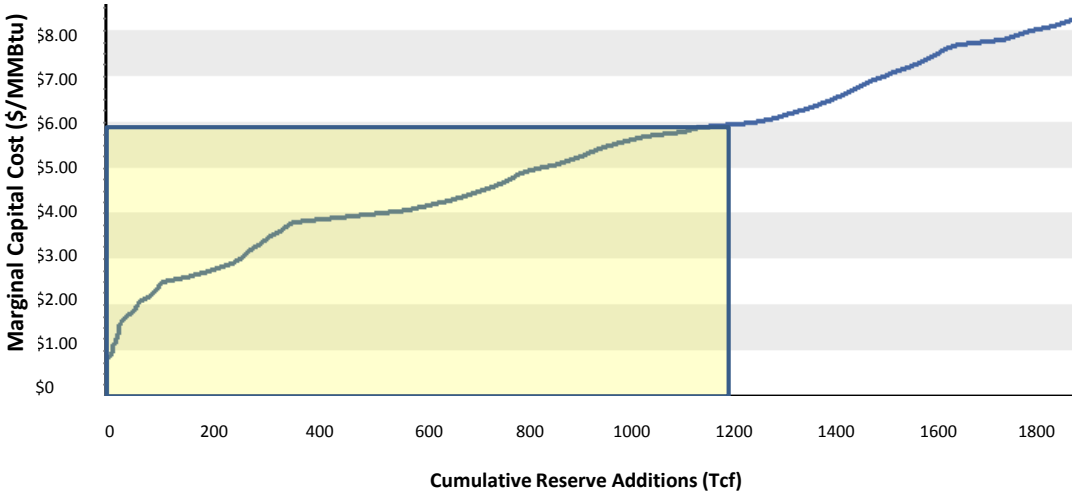
Large domestic supply buffers impact

Figure 11 shows the aggregate U.S. supply curve, including all types of gas formations. It plots the volumes of reserve additions available at different all-in marginal capital costs, including financing, return on equity, and taxes. The marginal capital cost is equivalent to the wellhead price necessary to induce a level of investment required to bring the estimated volumes on line. The model includes over one hundred different supply nodes representing the geographic and geologic diversity of domestic supply basins. The supply data is based on publically available documents and discussions with credible sources such as the United States Geological Survey, National Petroleum Council,

Potential Gas Committee, and the DOE's Energy Information Administration.

The area of the supply curve that matters most is the section below $6/MMBtu of capital cost because wellhead prices are projected to fall under this level during most of the time horizon considered. These are the volumes that will get produced over the next couple decades. The Reference Case estimates about 1,200 Tcf available at wellhead prices below $6/MMBtu in current dollars. To put the LNG export volumes into proper perspective, it will accelerate depletion of the domestic resource base, estimated to include about 1,200 Tcf at prices below $6/MMBtu in all-in capital cost, by 2.2 Tcf per year (equivalent to 6 Bcfd). Alternatively, the 2.2 Tcf represents an increase in demand of about 8% to the projected demand of 26 Tcf by the time exports are assumed to commence in 2016. The point is not to downplay the export volume, but to show the big picture. The magnitude of total LNG exports is substantial on its own, but not very significant relative to the entire U.S. resource base or total U.S. demand.

Figure 11: Aggregate U.S. natural gas supply curve (2012 $)

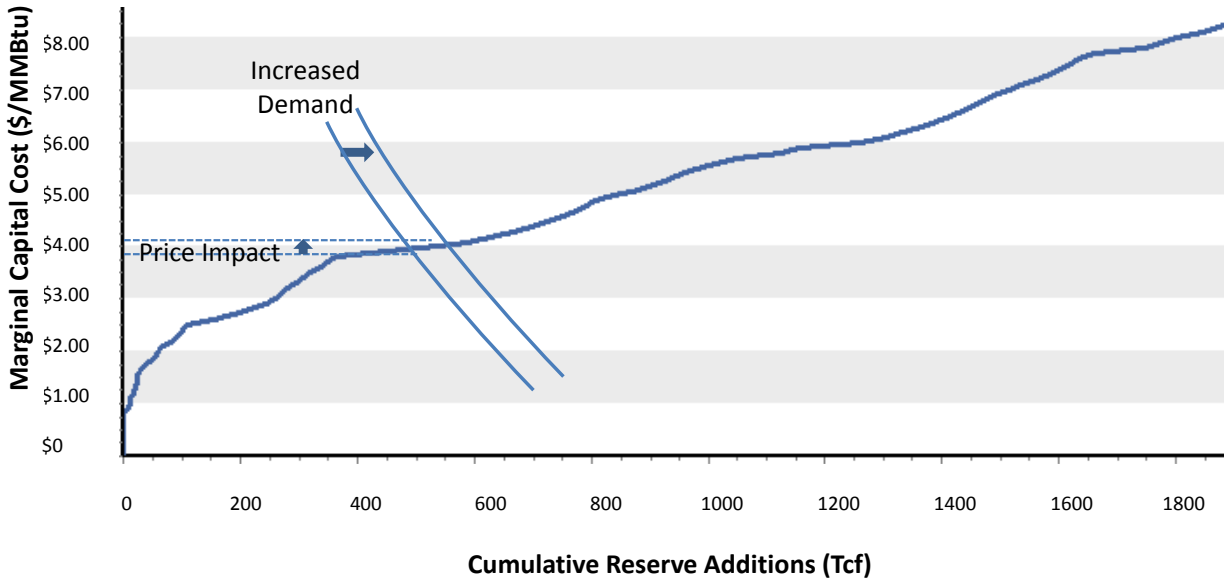


With regards to the potential impact of LNG exports, the absolute price is not the driving factor but rather the shape of the aggregate supply curve which determines the price impact. Figure 12 depicts how demand increase affects price. Incremental demand pushes out the demand curve, causing it to intersect the supply curve at a higher point. Since the supply curve is fairly flat in the area of demand, the price impact is fairly small. The massive shale gas resources have flattened the U.S. supply curve. It is the shape of the aggregate supply curve that really matters. Hence, leftward and rightward movements in the demand curve (where such leftward and rightward movements would be volumes of LNG export) cut through the supply curve at pretty much the same price. Flat, elastic supply means that the price of domestic natural gas is increasingly and continually determined by supply issues (e.g., production cost). Given that there is a significant quantity of domestic gas available at modest production costs, the export of 6 Bcfd of LNG could not increase the price of domestic gas very much because it could not increase the production cost of domestic gas very much.

The projected sources of incremental volumes used to meet the assumed export volumes come from multiple sources, including domestic resources (both shale gas and non-shale gas), import volumes, and demand elasticity. Figure 13 shows the sources of incremental volumes in the 6 Bcfd LNG export case on average from 2016 to 2035, the assumed years of LNG exports. (The shares are similar for other LNG export cases so we only show the 6 Bcfd case.) The bulk of the incremental volumes come from shale gas production. Including non-shale gas production, the domestic production contributes 63% of the total incremental volume. Net pipeline imports, comprised mostly of imports from Canada, contribute another 18%. Higher U.S. prices induce greater Canadian production, primarily from Horn River and Montney shale gas resources, making gas available for export to the U.S. The net exports to Mexico declines slightly as higher cost of U.S. supplies will prompt more Mexican production and reduce the need for U.S. exports to Mexico. Higher gas prices are also projected to trigger demand elasticity so less gas is consumed, representing about 19% of the incremental volume. Most of the reduction in gas consumption comes from the power sector as higher gas prices incentivize greater utilization of other types of generators.

Finally, there is an insignificant increment, less

Figure 12: Impact of higher demand on price (illustrative)

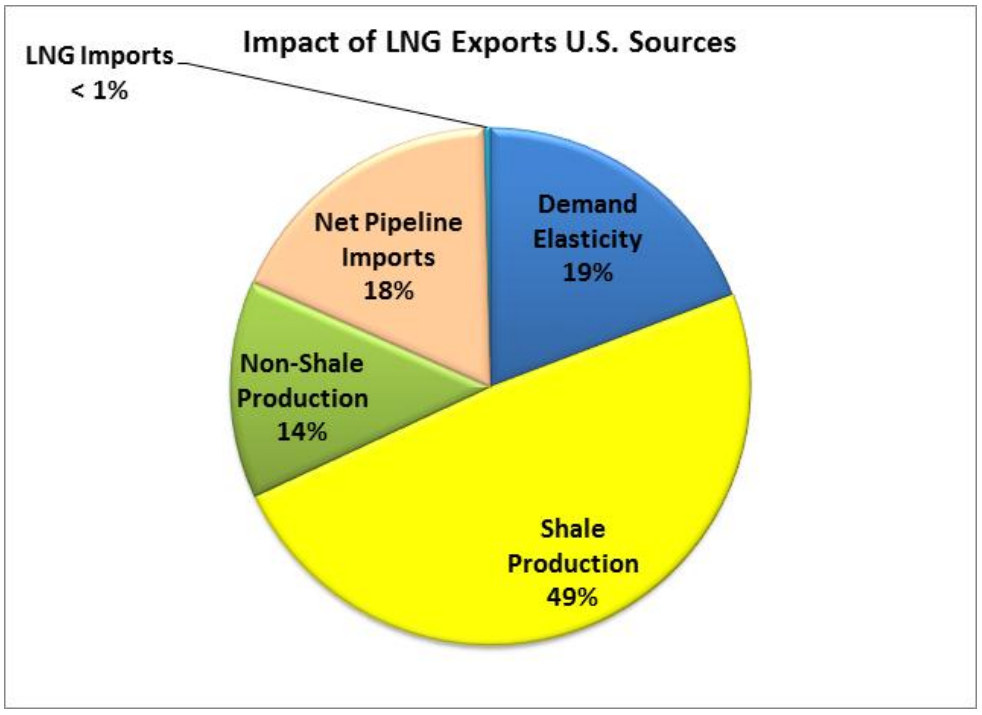


than 1%, coming from LNG imports. Having both LNG imports and exports is not necessarily contradictory since there is variation in price by terminal (e.g., Everett terminal near Boston will likely see higher prices than will Gulf terminals) and by time (e.g., LNG cargos will seek to arbitrage seasonal price).

These results underscore the fact that the North American natural gas market is highly integrated and all segments will work together to mitigate price impacts of demand changes.

During moderate or moderately high demand periods, coal or gas could be the marginal fuel type. If it is gas on the margin, price can rise only up to the cost of the next marginal fuel type (e.g., coal plant). If gas remains on margin, then it will be a simple calculation to see electricity price impact. At the projected Henry Hub gas price impact of $0.25/MMBtu, a typical gas plant with a heat rate of 8,000 would cost an additional $2.00/MWh (=$0.25/MMBtu x 8000 Btu/MWh x 1 MMBtu/1000 Btu). We believe that is the most that the gas price increase could elevate electricity price. Power load fluctuates greatly during a day, typically peaking during mid-afternoon and falling during the night. That implies that the marginal fuel type will also vary and gas will be at the margin only part of the time.

Figure 13: Projected sources of incremental volume in the 6 Bcfd Export Case (Average 2016-35)



Economic growth

In order to supply the natural gas used for LNG exports, additional production will be required. The direct expenditures to produce this incremental natural gas will provide an additional economic stimulus. The WGM allows us to quantify the direct expenditures on incremental natural gas production for each of the LNG cases we have considered.

For example, $14.3 Billion is the average annual direct expenditures for incremental shale and non-shale gas volumes as a result of the 6 Bcfd LNG export case. This figure was computed by multiplying the incremental volume of domestic gas produced, by the wellhead prices, where the incremental volume and prices are results from Market Builder.

In addition to direct expenditures producing direct economic impact, indirect economic impact will result from such direct expenditures through demand for goods and services of other businesses. For example, a wage earner in the gas production industry will require housing near natural gas production sites. Such overall impact, direct and indirect taken together, is often referred to as gross economic output.

Producing estimates for gross economic output due to direct expenditures by a certain industry activity is an inherently complex economic task. One relatively straightforward mechanism for obtaining such estimates is through the use of so called multipliers (although using multipliers is only one way to potentially produce such estimates). These multipliers are simply applied to the direct expenditure amount in order to arrive at the estimated values, e.g. simply multiplied by the $14.3 Billion amount from Market Builder.

Economic studies have estimated multipliers for gross economic output. We have sourced four economic studies, specific to the US Oil & Gas Industry, wherein each study provided estimate of the gross economic output multiplier. (The studies are cited below.)

In using four studies, we are able to provide a range of possible estimates for gross economic output. The range of gross economic multipliers in these studies for direct natural gas production expenditures is 1.34 to 1.90.

For example, in the midpoint 6 Bcfd LNG export case, the gross economic output ranges from $19.2 to $27.2 Billion.

Figure 14 contains similar results for gross economic output, which cover all five LNG export cases we considered, and for each of the four economic studies cited.

Finally, it should be noted that while price impact is greatest at Henry Hub, substantive economic impact would also occur in Texas and Louisiana. There would be direct economic impact from the LNG export terminal itself, (located at the Texas-Louisiana border), in terms of capital and operating expenditures. In addition, a component of direct expenditures on incremental gas feedstock replacement will be from Texas and Louisiana, as they are significant gas producing states. However, for the purposes of the analysis below, we have aggregated feedstock replacement expenditures across the United States (i.e. the $14.3 amount).

Figure 14: Estimated annual economic growth under various export cases

Golden Pass Only (2.0 Bcfd)			
Economic Reference	Primary Expenditures ($Million)	Economic Multiplier	Gross Economic Output ($ Millions)
1	$4,394	1.34	$5,887
2	$4,394	1.55	$6,810
3	$4,394	1.90	$8,348
4	$4,394	1.68	$7,381
Average	$4,394	1.62	$7,107

Golden Pass & Sabine Pass (4.2 Bcfd)			
Economic Reference	Direct Expenditures ($Million)	Economic Multiplier	Gross Economic Output ($ Millions)
1	$9,833	1.34	$13,177
2	$9,833	1.55	$15,242
3	$9,833	1.90	$18,683
4	$9,833	1.68	$16,520
Average	$9,833	1.62	$15,905

6.0 Bcfd			
Economic Reference	Direct Expenditures ($Million)	Economic Multiplier	Gross Economic Output ($ Millions)
1	$14,324	1.34	$19,195
2	$14,324	1.55	$22,203
3	$14,324	1.90	$27,216
4	$14,324	1.68	$24,065
Average	$14,324	1.62	$23,170

9.0 Bcfd			
Economic Reference	Direct Expenditures ($Million)	Economic Multiplier	Gross Economic Output ($ Millions)
1	$21,845	1.34	$29,272
2	$21,845	1.55	$33,859
3	$21,845	1.90	$41,505
4	$21,845	1.68	$36,699
Average	$21,845	1.62	$35,334

12.0 Bcfd			
Economic Reference	Direct Expenditures ($Million)	Economic Multiplier	Gross Economic Output ($ Millions)
1	$30,120	1.34	$40,361
2	$30,120	1.55	$46,687
3	$30,120	1.90	$57,229
4	$30,120	1.68	$50,602
Average	$30,120	1.62	$48,720

Sources

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2. Snead, Mark C. (2002) “The Economic Impact of Oil and Gas production and Drilling on the Oklahoma Economy.” Office of Business and Economic Research, College of Business Administration, Oklahoma State University.
3. Considine, Timothy J., (2010) "The Economic Impacts of the Marcellus Shale: Implications for New York, Pennsylvania, and West Virginia," A Report to the American Petroleum Institute.
4. Considine, Timothy J., R. Watson, S. Blumsack (2011) "The Pennsylvania Marcellus Natural Gas Industry: Status, Economic Impacts and Future Potential," Pennsylvania State University, Department of Energy and Mineral Engineering.

Impact on GDP

The increase to the GDP over the 20 year period 2016-2035 can be gauged by the gross economic output multiplied by 20 years. Considering the 6 Bcfd LNG export case, for example, and the average annual gross economic output is estimated at $23 billion or $460 billion over 20 years in current dollars.

Impact on balance of trade

LNG export levels directly impact balance of trade. Using Henry Hub prices times exported volumes provide an immediate estimate to balance of trade. For the five export levels analyzed: 2 Bcfd, 4.2 Bcfd, 6 Bcfd, 9 Bcfd and 12 Bcfd, the corresponding annual dollar export amounts are $5.3 billion, $11.3 billion, $16.4 billion, $24.9 billion and $33.8 billion, respectively. The LNG exports will directly help US balance of payment since sales of LNG exports represent receipts to the US.

Impact on US industry

Expenditures by the US Oil & Gas industry represent the primary impact to US Industry; specifically, expenditures to produce incremental natural gas production resulting from LNG exports. This has been quantified above through direct expenditures amounts calculated with Market Builder. Further US industry impact as a result of gross economic impact is more difficult to quantify, however, see the following section regarding increased NGL production and the impact to the US petrochemical industry.

Energy security

Because the U.S. is largely independent of non-North American natural gas supplies, security implications of LNG exports are greatly minimized. The energy dependency that the general public has in mind usually relates to oil imports and the resulting export of dollars to the oil-exporting countries. Perhaps the thought is that gas can displace the oil imports and help alleviate U.S. dependence of foreign oil. If this is the goal, then it would require retrofit of millions of vehicles and thousands of refueling stations. This has been much discussed but never done because of the tremendous costs involved. Due to the high density of oil, it is a near perfect fuel for transportation. Natural gas, although much cheaper and domestically available, lacks the desired properties of oil and therefore is unlikely to capture a large share of the transportation market without significant technological advancements and infrastructure development.

Furthermore, natural gas is not a substitute for oil to a significant degree in any other sector. There are very few oil-fired power plants and the ones that we have generally do not run. Very few industrial boilers burn oil because of its high cost and emissions. Indeed there is very limited oil-gas substitutable demand. Therefore, there is little that natural gas can do to alleviate the country's dependence on oil imports.

Finally, energy exports from the U.S. are not without precedent. The U.S. has been exporting coal and refined oil products for years, as well as exporting LNG from Alaska. The attention on LNG exports on security grounds seems inconsistent with these other examples.

LNG exports will likely boost NGL production

Since much of the incremental supplies as a result of LNG exports will come from shale gas fields, which also hold volumes of NGLs (natural gas liquids), LNG exports will also likely boost production of NGLs. NGLs include ethane, propane, and butanes, which serve as important feedstock used in the petrochemical industry, as well as a multitude of fuel needs.

As shown in Figure 13, about half of the incremental volumes used to source LNG exports come from shale gas production. While many shale gas fields hold just dry gas (i.e., no liquids), some also include varying degrees of NGL content. Some areas in the Eagle Ford, Marcellus, and several other shale gas basins are rich in liquids. NGL prices have historically tracked crude oil prices. Since NGLs have a much higher economic value on an energy basis (i.e., $/MMBtu), the presence of NGLs increase the value of a gas producing field. In fact, it is the presence of liquids that is driving production decisions in the current market given the low natural gas prices and relatively high NGL prices.

The WGM includes estimates of NGL content by shale basin and projected NGL prices. The NGL product stream is priced according to the projected NGL prices, which are estimated to be 60% of projected oil price[5]. The supply logic included in the model takes into account the value of the NGL product stream, as well as dry gas product stream, in representing producer decisions. By comparing the NGL production in the export cases to the reference case without LNG exports, we can compute the amount of NGLs that will be produced as a result of the assumed LNG export volumes. We only included shale gas in predominantly gas prone regions. Some regions, such as the Bakken, hold both gas and NGLs but they are produced primarily for the liquids content and therefore not included in our projections.

Based on WGM projections and estimates of NGL content by shale gas basin, we estimate an average incremental NGL production of about 75 thousand barrels per day in the 6 Bcfd case from 2016 to 2035. Assuming a $60 per barrel of NGLs, the incremental NGL volumes would be valued at about $1.6 billion per year. The volumes represent about a 3% increase to the current total U.S. NGL production of about 2.2 million barrels per day. For our analysis, we used conservative (e.g., low) estimates[6] of NGL content by basin to account of depletion of liquids rich fields. NGLs are not spread uniformly within each basin. Since NGLs are valued at a premium over natural gas on an energy basis (e.g., $/MMBtu), producers will preferentially develop and deplete liquids rich areas. The incremental NGL volumes come from higher cost shale gas areas with NGL content since the lower cost areas would be developed even without LNG exports. Some shale gas areas, such as the Haynesville, were assumed to contain no NGLs.

[5] NGL prices have historically been about 65% to 70% of oil price. We assumed a little lower percentage for the future due to the increase in NGL supply in the U.S.

[6] EIA NGL Workshop, A.B. Keller (June 2012). http://www.eia.gov/conference/ngl_virtual/EIA-NGL_workshop-Anne-Keller.pdf

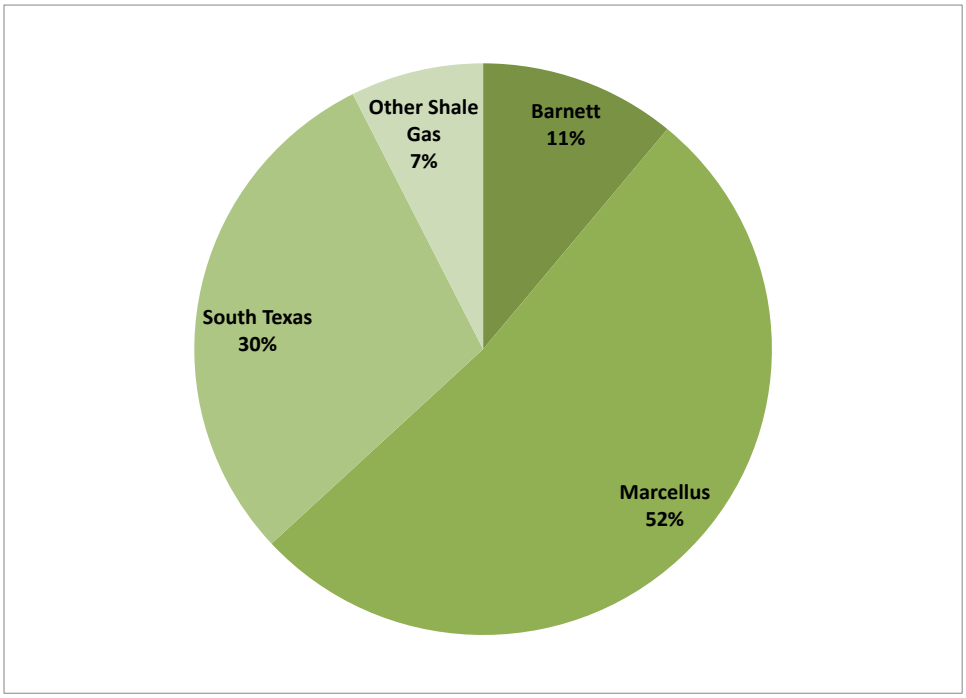
Figure 15 shows the incremental NGL production by basin. Most of the incremental NGL production comes from South Texas (e.g., Eagle Ford) and Marcellus. In part it is the very presence of NGLs that enhance the value of production from these fields.

The significance of the NGL production is that it further contributes to the comparative advantage the U.S. petrochemical industry has as a result of low natural gas and NGL prices over competitors in countries that have higher feedstock costs. Before the "decoupling" of natural gas and crude oil prices as a result of the shale revolution, the U.S. petrochemical industry had suffered as U.S. natural gas prices rose to sustained high levels and squeezed the margins of petrochemical operations. Many industry observers at that time believed that the U.S. would continue to rationalize its existing production capacity of various petrochemicals and be forced to shut down many older uneconomic facilities. As a result much of the new capacity was being added in the Middle East and China

However, with the emergence of shale gas production, the U.S. is now considered among the lowest cost producers of ethylene in the world. Because of the comparative advantage the U.S. now possesses because of low NGL feedstock cost, several companies have announced new plants and expansions of existing facilities.

LNG exports could further the supply of NGLs and contribute to reinvigorating parts of the U.S. petrochemical industry.

Figure 15: Share of NGL production by basin



Comparison of results to other studies

A number of studies, including others submitted to the DOE in association with LNG export applications, have attempted to estimate impacts of LNG exports from the U.S. The EIA also performed a study[7] at the request of the DOE. The various studies used different models and assumptions, but a comparison of their results might shed some light on the key factors and range of possible outcomes.

Figure 16 compares projections of estimated Henry Hub price impact from 6 Bcfd of LNG exports. The price impact ranges from 4% to 11%, with this study being on the low end and the ICF International study being on the high end. The first observation is that, although the percentage differences are large on a relative basis, the range of estimated impacts is not so large. These studies consistently show that the price impact will not be that large relative to the change in demand. Bear in mind that 6 Bcfd is a fairly large incremental demand. In fact, it exceeds the combined gas demand in New York (3.3 Bcfd) and Pennsylvania (2.4 Bcfd) in 2011. These studies indicate that adding a sizeable incremental gas load on the U.S. energy system might result in a gas price increase of 11% or less.

Although we have limited data relating to specific assumptions and detailed output from the other studies, we can speculate as to why the impacts differ so much. By most accounts, the resource base in the United States is plentiful, perhaps sufficient to last some 100 years at current production levels. All of the studies listed, including our own, had estimated natural gas resource volumes, including proved reserves and undiscovered gas of all types, of over 2,000 Tcf. Why then would the LNG export impacts vary as much as they do?

An important distinction between our analysis and the other studies is the representation of market dynamics, particularly for supply response to demand changes. That is, how do the studies represent how producers will respond to demand changes? The World Gas Model has a dynamic supply representation in which producers are assumed to anticipate demand and price changes. For example, some producers have recently reduced drilling activity in shale gas basins or shifted to liquids rich

Figure 16: Comparison of projected price impact at the Henry Hub with 6 Bcfd of LNG exports (2015-35)

Study	Price without Exports ($/MMBtu)	Price with Exports ($/MMBtu)	Average Price Increase (%)
EIA	$ 5.28	$ 5.78	9%
Navigant (2010)	$ 4.75	$ 5.10	7%
Navigant (2012)	$ 5.67	$ 6.01	6%
ICF International	$ 5.81	$ 6.45	11%
Deloitte MarketPoint	$ 6.11	$ 6.37	4%

Source: Brookings Institute for all estimates besides Deloitte's

[7] "Effect of Increased Natural Gas Exports on Domestic Energy Markets," Howard Gruenspecht, EIA, January 2012.

areas in anticipation of low gas prices. Producers do more than just respond to price that they see, but rather anticipate events. Accordingly, prices will rise to induce producers to develop supplies in time to meet future demand.

Other models, primarily based on linear programming[8] or similar approaches, use static representation of supply in that supply does not anticipate price or demand growth. These static supply models require the user to input estimates of productive capacities in each future time period. The Brookings Institution completed a study assessing the impact of LNG exports and analyzing different approaches.[9] . As the Brookings study states:

"…[a] static supply model, which, unlike dynamic supply models, does not fully take account of the effect that higher prices have on spurring additional production."

Since the supply volumes available in each time period is an input into LP models, the user must input how supply will respond to demand. In the case of LNG exports, the user must input how much supplies will increase and how quickly given the export volumes. Hence, the price impact is largely determined by how the user changes these inputs.

The purpose of this discussion is not to assert which approach is best, but rather to understand the differences so that the projections can be understood in their proper context. Clearly, assuming little or no price anticipation will tend to elevate the projected price impact while assuming price anticipation will tend to mitigate the projected price impact. Depending on the issue being analyzed, one approach may be more appropriate than the other. In the case of LNG export terminals, our belief is that the assumption of dynamic supply demand balance is highly appropriate. Given the long lead time, expected to be at least five years, required to permit, site, and construct an LNG export terminal, producers will have both ample time and plenty of notice to prepare for the export volumes. It would be an entirely different matter if exports were to suddenly materialize with little advanced notice.

The importance of timing is clearly evident in EIA's projections. The projected price impact is highly dependent on how quickly export volumes are assumed to ramp up. Furthermore, in all cases, the impacts are the greatest in the early years of exports. The impacts dissipate over time as supplies are assumed to eventually catch up with the demand growth.

Natural gas producers are highly sophisticated companies with analytical teams monitoring and forecasting market conditions. Without doubt, producers, well aware of the potential LNG export projects, are looking forward to the opportunity to supply these projects.

[8] Linear programming ("LP") is a mathematical technique for solving a global objective function subject to a series of linear constraints

[9] "Liquid Markets: Assessing the Case for U.S. Exports of Liquefied Natural Gas," Brookings Institution (2012).

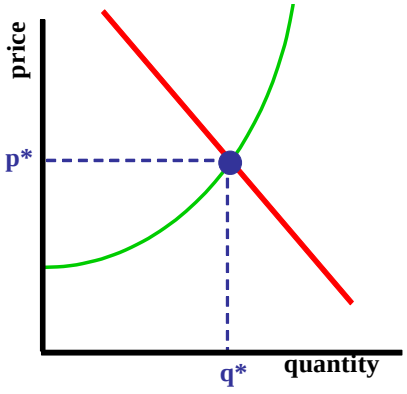
Appendix: DMP's World Gas Model and data

To help understand the complexities and dynamics of global natural gas markets, DMP uses its World Gas Model ("WGM") developed in our proprietary MarketBuilder software. The WGM, based on sound economic theories and detailed representations of global gas demand, supply basins, and infrastructure, projects market clearing prices and quantities over a long time horizon on a monthly basis. The projections are based on market fundamentals rather than historical trends or statistical extrapolations.

WGM represents fundamental producer decisions regarding the timing and quantity of reserves to develop given the producer's resource endowments and anticipated forward prices. This supply-demand dynamic is particularly important in analyzing the market value of gas supply in remote parts of the world. The WGM uses sophisticated depletable resource logic in which today's drilling decisions affect tomorrow's price and tomorrow's price affects today's drilling decisions. It captures the market dynamics between suppliers and consumers.

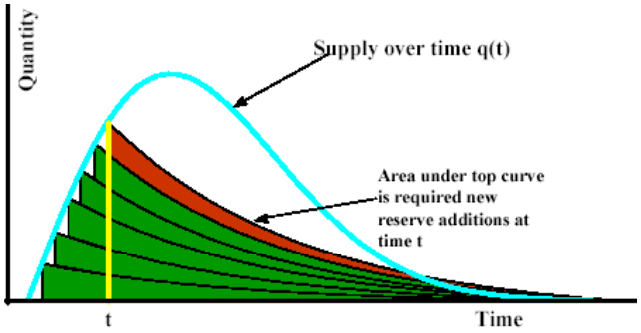
WGM simulates how regional interactions among supply, transportation, and demand interact to determine market clearing prices, flowing volumes, reserve additions, and pipeline entry and exit through 2046. The WGM divides the world into major geographic regions that are connected by marine freight. Within each major region are very detailed representations of all market elements: production, liquefaction, transportation, market hubs, regasification and demand by country or sub area. All significant existing and prospective trade routes, LNG liquefaction plants, LNG regasification plants and LNG terminals are represented. Competition with oil and coal is modeled in each region. The ability to model the related markets for emission credits and how these may impact LNG markets is included. The model includes detailed representation of LNG liquefaction, shipping, and regasification; pipelines; supply basins; and demand by sector. Each regional diagram describes how market elements interact internally and with other regions.

Agent based economic methodology. MarketBuilder rigorously adheres to accepted microeconomic theory to solve for supply and demand using an "agent based" approach. To understand the substantial benefits of the agent based approach, suppose you have a market comprised of 1000 agents, i.e., producers, pipelines, refineries, ships, distributors, and consumers. If your model of that market is to be correct, how many optimization problems must there be in your model of that 1000 agent market? The answer is clear—there must be 1000 distinct, independent optimization problems. Every individual agent must be represented as simultaneously solving and pursuing his or her own maximization problem, vying for market share and trying to maximize

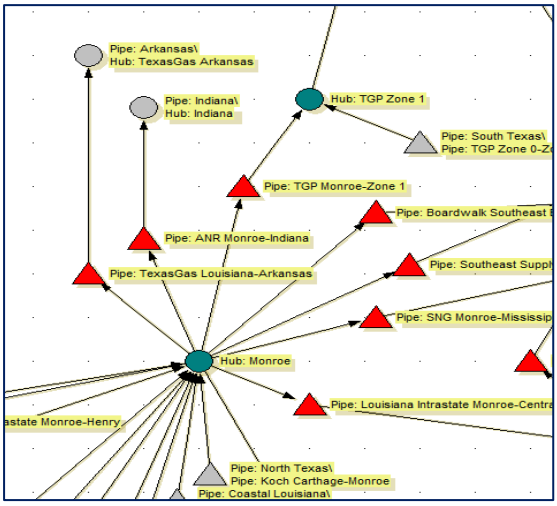


his or her own individual profits. Market prices arise from the competition among these 1000 disparate, profit-seeking agents. This is the essence of microeconomic theory and competitive markets — people vying in markets for profits — and MarketBuilder rigorously approaches the problem from this perspective. In contrast, LP models postulate a single optimization problem no matter how many agents there are in the market; they only allow one, overall, global optimization problem. With LP, all 1000 agents are assumed to be manipulated by a "central authority" who forces them to act in lockstep to minimize the worldwide cost of production, shipment, and consumption of oil, i.e., to minimize the total cost of gas added up over the entire world.

Supply methodology and data. Working with data from agencies such as the United States Geological Survey (USGS), Energy Information Administration (EIA), and International Energy Agency (IEA), we have compiled a complete and credible database of global supplies. In particular, we relied on USGS' world oil and gas supply data including proved reserves, conventional undiscovered resources, growth of reserves in existing fields, continuous and unconventional deposits, deep water potential, and exotic sources. Derived from detailed probabilistic analysis of the world oil and gas resource base (575 plays in the US alone), the USGS data lies at the heart of DMP' reference case resource database. Only the USGS does a worldwide, "bottom up" resource assessment. Customers can easily substitute their own proprietary view where they believe they have superior information. MarketBuilder allows the use of sophisticated depletable resource modeling to represent production of primary oil and gas (an extended Hotelling model). The DMP Hotelling depletable resource model uses a "rational expectations" approach, which assumes that today's drilling affects tomorrow's price and tomorrow's price affects today's drilling. Thus MarketBuilder combines a resource model that approaches resource development the same way real producers do with the superior worldwide data of the USGS.



Transportation data. DMP maintains a global pipeline and transportation database. DMP and our clients regularly revise and update the transportation data including capacity, tariffs, embedded cost, discounting behavior, dates of entry of prospective new pipelines, and costs of those new pipelines.



Non-linear demand methodology.

MarketBuilder allows the use of multi-variate nonlinear representations of demand by sector, without limit on the number of demand sectors. DMP is skilled at performing regression analyses on historical data to evaluate the effect of price, weather, GNP, etc. on demand. Using our methodology, DMP systematically models the impact of price change on demand (demand price feedback) to provide much more realistic results than models that use simple exogenous demand projections (e.g. 2% per year increase regardless of price), which is commonly used.

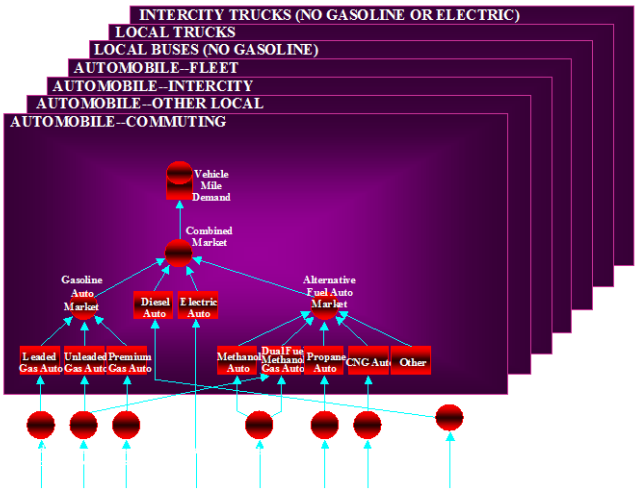


EXHIBIT D:

"The Socioeconomic Impact of Authorizing Exports of Liquefied Natural Gas from the Proposed Golden Pass Products LLC Facilities in Sabine Pass, Texas, on Business Activity in Jefferson County, the Surrounding Region, and the United States," The Perryman Group, August, 2012.

October 2012

The Socioeconomic Impact of Authorizing Exports of Liquefied Natural Gas (LNG) from the Golden Pass Products Facility in Jefferson County, Texas on Business Activity in Jefferson County, the Primary Impact Area, and the United States

THE PERRYMAN GROUP

510 N. Valley Mills Dr., Suite 300

Waco, TX 76710

ph. 254.751.9595, fax 254.751.7855

info@perrymangroup.com

www.perrymangroup.com

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

The Perryman Group (TPG) has conducted an analysis of the proposed Golden Pass Products LLC (GPP) project and identified substantial, long-term economic benefits including job creation, economic investment, and tax revenue. The proposed facilities would be constructed contiguous to the existing Golden Pass LNG Terminal LLC import terminal located in Jefferson County, Texas.

Benefits (U.S.)	
Economic Impact	
($M) Gross Product	31,465
Jobs	
(Person years)	324,790
Tax/Fiscal Benefits	
($M)	4,648

TPG utilized its propriety US Multi-Regional Impact Assessment System to model the economic impacts of the $10 billion GPP export project on Jefferson County, the primary impact area (the Beaumont-Port Arthur Metropolitan Statistical Area (MSA) in southeast Texas and the Lake Charles MSA in southwest Louisiana), and the United States.

The Perryman Group estimates that the GPP Export Project would lead to total economic gains of over $31 billion (gross product) in the U.S. and 324,790 person-years of employment. These gains represent GPP's resonating impact to the U.S. economy through construction, development, and operations, which stimulate a broad array of supporting industries and employment.

Economic Sector Gains	Gross Product *(2012 $Millions)*
Retail Trade	5,402
Construction	4,951
Nondurable Manufacturing	4,338
Durable Manufacturing	2,733
Business Services	2,423
Transportation and Utilities	2,315
Finance, Insurance, Real Estate	2,157
Mining	1,800
Other Services	1,609
Wholesale Trade	1,603
Health Services	1,141
Information	718
Agriculture	276
TOTAL	**31,465**

Construction and other pre-operational spending related to the GPP Export Project would generate business activity of $20 billion in output (gross product) and 228,354 person-years of employment or roughly 45,600 jobs per year nationwide during construction.

The economic benefits of ongoing operations of the GPP export terminal once fully operational include some $460.2 million in U.S. gross product each year, as well as creation of 3,860 permanent jobs.

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Golden Pass Products: Summary of Potential U.S. Benefits

Economic Impact ($M) Gross Product	Annual	U.S. Project Life
Total Construction & Cumulative Operations (25 yrs)		**31,465**
Construction Phase	---	19,960
Operations Phase	460	11,505

Jobs (person years)	Annual	U.S. Project Life
Total Construction & Cumulative Operations (25 yrs)		**324,790**
Construction		228,350
Cumulative Operations		96,430
Annual Operations (permanent jobs)	3,860 direct & indirect	

Tax/Fiscal Benefits ($M)	Annual	U.S. Project Life
Total Construction & Cumulative Operations (25 yrs)		**4,648**
Construction	---	3,246
Operations	56	1,402

* Monetary Values are in constant (2012) dollars.

A sizeable portion of these effects is concentrated in Jefferson County and the primary impact area, which would also see significant economic benefits. Ongoing operations would generate some 2,590 permanent jobs in Jefferson County. The local area would also see considerable incremental tax receipts.

Implementing this initiative requires GPP to file an application under Section 3 of the Natural Gas Act for authorization from the U.S. Department of Energy, Office of Fossil Energy (DOE/FE) to export domestic sourced natural gas in the form of liquefied natural gas (LNG) to non-Free Trade Agreement (FTA)

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countries via ocean-going vessels.[1] Additionally, GPP will be required to file a separate application with the Federal Energy Regulatory Commission for Section 3 authorization to site, construct, and operate the facilities necessary to liquefy natural gas for exportation.

TPG is an economic research and analysis firm with more than 30 years of experience in assessing the economic impact of, among other things, hundreds of corporate expansions similar to that which GPP is proposing. The firm developed and has maintained econometric models (providing current and forecast economic and demographic information) for the project area since the early 1980s. TPG's analysis includes Jefferson County, the primary impact area (the Beaumont-Port Arthur MSA (which includes Jefferson County) in southeast Texas and the Lake Charles MSA in southwest Louisiana), and the United States.

TPG utilized its propriety US Multi-Regional Impact Assessment System to model the economic impacts of the GPP export project. This model is a dynamic input-output assessment system that uses a variety of data (from surveys, industry information, and other sources) to describe the various goods and services (known as resources or inputs) required to produce another good/service (outputs). TPG also used its associated fiscal model for estimation of federal, state, and local tax receipts.

As a preliminary phase of this analysis, TPG developed detailed baseline forecasts of economic activity in the areas of interest. These projections through 2040 quantify the economic outlook for Jefferson County, the Beaumont-Port Arthur MSA (includes Hardin, Jefferson, and Orange counties), the Lake Charles MSA (includes Calcasieu and Cameron parishes), and the total of these two, which represents the primary area of impact. TPG then quantified the likely incremental business activity stemming from the GPP project for these areas as well as the United States.

TPG quantified several sources of increases in business activity associated with the GPP export project. Among those sources are impacts from construction and pre-operational activity, ongoing operations, enhancements to exploration and production of natural gas, and potential chemical manufacturing supported by the by-products of the LNG process. In this report, gains in business activity are expressed in terms of several different measures (including total expenditures, gross product, personal income, job gains, and retail sales), as well as fiscal benefits.

[1] On August 17, 2012, GPP filed a Section 3 Application with the DOE/FE at Docket No. 12-88-LNG for Section 3 authorization to export domestic sourced natural gas in the form of LNG to FTA Countries.

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CURRENT SOCIOECONOMIC CONDITIONS

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CURRENT SOCIOECONOMIC CONDITIONS

As a component of this analysis, The Perryman Group reviewed current socioeconomic conditions in the area most affected by the Golden Pass Products initiative (the Beaumont-Port Arthur and Lake Charles Metropolitan Statistical Areas). These areas were determined to be the primary impact area based on the capture of notable economic activity from the GPP facilities, as determined by simulations of the impact model and concentration of relevant collateral industries. Key measures are presented in the table below, with further discussion following.

Summary of Current Socioeconomic Conditions in the Primary Impact Area

	Beaumont-Port Arthur MSA*	Lake Charles MSA*
Population (2010)	389,000	199,000
Median Household Income (2010)	$41,291	$40,194
Median Age (2010)	37.1	35.8
Percentage of population age 16 and over employed (2010)	52%	56%
Unemployment Rate (June 2012)	11.4%	8.1%

*The Beaumont-Port Arthur MSA is comprised of Hardin, Jefferson, and Orange Counties, Texas; the Lake Charles MSA is comprised of Calcasieu and Cameron Parishes, Louisiana.
Source: U.S. Census Bureau American Community Survey and U.S. Bureau of Labor Statistics

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Recent Demographic and Housing Trends

Beaumont-Port Arthur MSA

The population of the Beaumont-Port Arthur MSA has experienced steady growth in the past few years, continuing a long-term trend.

- The total population in this MSA increased from 366,900 in 2005 to 389,000 in 2010 according to the U.S. Census Bureau American Community Survey, a 6.02% increase.[2]
- The population was almost evenly split between males and females with 197,000 males and 193,000 females.
- The median age in the area was 37.1 years. About 24.4% of the population was younger than age 18 and 13.3% was age 65 years or older. By comparison, 27.3% of the Texas population and 24.0% of the U.S. population were younger than 18.

Median income for a Beaumont-Port Arthur MSA household in 2010 was $41,291, significantly lower than median levels for Texas ($48,615) and the nation ($50,046). Approximately 19% of households had incomes below $15,000 and 4% had incomes above $150,000.

A review of the working demographics for the population age 16 and over reflects approximately 52% of this age group were employed in 2010 and approximately 42% were not in the workforce. These percentages are lower than the state of Texas (59% employed and 35% not in the labor force) or the U.S. (57% employed and 36% not in the labor force). Approximately 79% of those employed in the Beaumont-Port Arthur MSA were private wage and salary workers, while about 15.3% were federal, state, or local government workers. Another 5.5% were self-employed in not-incorporated businesses.

In terms of educational attainment level, as of 2010 in the Beaumont-Port Arthur MSA, 82.9% of people 25 and older had at least graduated high school. An estimated 10.9% had a Bachelor's degree and 4.1 % had a graduate or professional degree. In Texas, 17.3% had a Bachelor's degree in 2010 and 8.6% had a graduate or professional degree, while for the nation as a whole the numbers were 17.7% and 10.4%, respectively.

[2] Note that U.S. Census Bureau, American Community Survey data was used as the source for much of the analysis in this section and the population estimates differ in an insignificant manner from U.S. Bureau of Economic Analysis population estimates.

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As of 2010, there were 140,000 households in the Beaumont-Port Arthur MSA. The average household size was 2.6 people, slightly smaller than the Texas average of 2.8. Of these households, about 68% were family households with almost 46% of those being married-couple families and 22% other families. Approximately 27.3% of households were people living alone. In addition, 34% of all households had at least one person under the age of 18 and 26% had at least one person 65 years or older.

In 2010, the Beaumont-Port Arthur MSA had a total of 163,000 housing units with 14% of these units vacant.

- Some 73.6% of the total housing units were single-unit structures, 17.5% were multi-unit structures, and 8.6% were mobile homes.
- About 23% of the units were built since 1990, and 62% of the housing units had three or more bedrooms.
- In 2010, 68% or 95,000 of the 140,000 occupied housing units in the Beaumont-Port Arthur MSA were owner occupied, while 32% (45,000) were renter occupied.
- In terms of housing costs, homeowners with a mortgage had a median monthly housing cost of $1,135, while for owners without a mortgage it was $349. For renters, the median monthly housing cost was $717. These costs compared favorably to mortgage costs in Texas of $1,402 and the U.S. of $1,496. The median monthly housing cost for renters in Texas was $801, with a median of $855 nationwide.
- Of these owners with mortgages in the Beaumont-Port Arthur MSA, 30% spent 30% or more of household income on housing in 2010. Some 14% of owners without mortgages and 50% of renters spent 30% or more of household income on housing. These percentages are similar to Texas and lower than the U.S. in the same categories.

Lake Charles MSA

The population of the Lake Charles MSA has experienced fairly strong growth in recent years. Total population in this MSA rose by 6.47% from 186,900 in 2005 to about 199,000 in 2010 according to the U.S. Census Bureau American Community Survey. The population was 51.3% female with 102,000 and 48.7% males with 97,000.

The median age in the area was 35.8 years, slightly younger than Beaumont-Port Arthur. About 25.4% of the population was younger than age 18 and 12.7% was aged 65 years or older. By comparison, 24.6% of the Louisiana population was younger than 18 and 12.3% was 65 and over.

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The median household income in 2010 for the Lake Charles MSA was $40,194, with 16% of households having income below $15,000 a year and 5% with incomes above $150,000. The median household income for Louisiana as a whole in 2010 was $42,505 and for the U.S. was $50,046.

In 2010, about 56% of the population age 16 and over was employed, while 39% were not in the workforce, which is very similar to the state as a whole. Approximately 79.5% of those employed were private wage and salary workers, while about 16.7% were federal, state, or local government workers. Only 3.7% were self-employed in not-incorporated businesses.

Lake Charles MSA educational attainment levels as of 2010 indicated 83.2% of people 25 and older had at least graduated high school. About 13.9% had a Bachelor's degree (compared to 14.4% in Louisiana) and 5.6% had a graduate or professional degree (compared to 7% in the state).

There were 75,000 households in the Lake Charles MSA in 2010. The average household size was 2.6 people, the same as the state as a whole. Just over 70% of these households were family households with 48.2% of those being married-couple families and 22.1% other families. Households with people living alone comprised 24.4% of the total households. In addition, 35% of all households had at least one person under the age of 18 and 24% had at least one person 65 years or older. These percentages closely mirror those of Louisiana overall.

As of 2010, the Lake Charles MSA had about 86,000 housing units, of which 12% were vacant. Of the total housing units, 71.6% were single-unit structures, 11.4% were multi-unit structures, and 16.9% were mobile homes. Some 39% of the units were built since 1990, and 71% of the housing units had three or more bedrooms. Of the 75,000 occupied housing units in 2010, some 56,000 (75%) were owner occupied, while 19,000 or 26% were renter occupied.

The median monthly housing cost for homeowners with a mortgage was $1,041. For those homeowners without a mortgage, the median monthly housing cost was $306; for renters, it was $726. These costs are slightly less than those for Louisiana and are much lower than the nation as a whole. About 27% of the homeowners with mortgages in the Lake Charles MSA spent 30% or more of household income on housing in 2010. Approximately 11% of owners without mortgages and 55% of renters spent 30% or more of household income on housing. These percentages are slightly lower than Louisiana other than for renters, who exhibit slightly higher percentages in Lake Charles than the state overall.

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Existing Economic Conditions

Beaumont-Port Arthur MSA

The Beaumont-Port Arthur MSA economy is relatively diverse. Services industries, nondurable manufacturing, and wholesale and retail trade each account for significant shares of the area's output (real gross product).

According to the U.S. Bureau of Labor Statistics, total nonfarm employment in the Beaumont-Port Arthur MSA increased slightly from May to June 2012, with 1,400 net new jobs bringing total nonfarm jobs to 160,400. Over the past year (June 2011 to June 2012), total nonfarm employment increased by only 700. The mining, logging, and construction industry sector was the main contributor to job growth, adding 600 jobs from May to June 2012 and 1,500 jobs over the past year to reach a total of 21,100 jobs. The trade, transportation, and utilities segment was the largest source of jobs, with total employment of 29,800 as of June 2012, unchanged from the June 2011 level. Government was the second-largest segment, with 23,800 employees in June, but saw the largest decline over the past year, shedding some 1,600 jobs.

The area had a relatively high unemployment rate at 11.4% as of June 2012, with 22,000 people unemployed. The rate is only slightly better than June 2011 when it stood at 11.6%. The Beaumont-Port Arthur MSA unemployment rate is significantly higher than the state rate of 7.6%, which is consistent with historic trends for the area, although the current gap is somewhat larger than in the past.

The petrochemical and oil and gas industries provide ongoing economic stimulus to the Beaumont-Port Arthur area.

Lake Charles MSA

The Lake Charles MSA economy reflects a concentration within the nondurable manufacturing industry group, with services and trade also important sources of jobs.

Based on data from the U.S. Bureau of Labor Statistics, total nonfarm employment in the Lake Charles MSA rose from 88,500 jobs in May 2012 to 89,600 in June, with 1,100 net new jobs being added. Comparing June 2011

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to June 2012, the Lake Charles MSA total nonfarm employment did not change. Employment in most industrial sectors was flat over the past year, with only slight increases or decreases. The exceptions were trade, transportation, and utilities, which lost 1,000 jobs from June 2011 to June 2012, and leisure and hospitality, which added 400 jobs. Despite the decrease, trade, transportation, and utilities remains the second largest sector in terms of employment with 15,700 employees compared to government with 16,300. Leisure and hospitality was also a strong employment sector with 12,000 jobs in June 2012.

The Lake Charles MSA unemployment rate stood at 8.1% as of June 2012 with 7,700 people unemployed, up from 6.9% in May (most likely due at least in part to seasonal factors). The rate was higher than the 7.3% rate in June 2011. The Louisiana unemployment rate in June 2012 was 7.5%, just as it was in June 2011. For most of the prior months in 2012, Lake Charles unemployment was lower than Louisiana as a whole.

Baseline Outlook Summary

As a component of this analysis, The Perryman Group developed detailed economic forecasts of areas affected by the GPP Export Project. These baseline forecasts represent likely conditions in the area in the absence of the GPP export project. Projections through 2040 were developed for:

- Jefferson County,
- the Beaumont-Port Arthur MSA (Hardin, Jefferson, and Orange counties),
- the Lake Charles, Louisiana MSA (Calcasieu and Cameron parishes), and
- the primary impact area (the total of the two MSAs).

Additional forecast detail (including projections by industry) for each area is presented in the appendices to this report.

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Jefferson County

Output (real gross product) in Jefferson County is expected to grow from an estimated $12.9 billion currently to $30.5 billion in 2040, reflecting a 3.13% compound annual rate of growth. The population is projected to expand by more than 36,800 persons over the period to surpass 285,400. The wage and salary employment component is forecast to expand at a 1.38% annual pace from a current estimate of almost 132,800. The table below depicts key indicators for Jefferson County.

Outlook for Jefferson County: 2012-2040

Key Indicator	2012 Level	2040 Level	Growth Rate* 2012-2040	Increase 2012-2040
Real Gross Product (2012$)	$12.85 billion	$30.49 billion	3.13%	$17.64 billion
Population	248,635	285,440	0.49%	36,810
Wage & Salary Employment	132,760	194,850	1.38%	62,090
Real Personal Income (by place of residence in 2012$)	$9.23 billion	$25.78 billion	3.74%	$16.55 billion
Real Retail Sales (2012$)	$3.05 billion	$7.87 billion	3.44%	$4.82 billion

*Compound Annual Growth Rate, meaning that it reflects changes in the base from which growth is calculated.

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Beaumont-Port Arthur MSA

The Beaumont-Port Arthur MSA is projected to experience gains in output (real gross product) at a 3.11% annual rate, increasing from a current level of $15.8 billion to $37.2 billion in 2040. Real personal income (by place of residence) is projected to rise at a 3.76% annual rate from an estimated $14.2 billion in 2012 to $39.8 billion by 2040. Through 2040, total employment in the Beaumont-Port Arthur MSA is expected to rise by 78,500, an increase of 1.36% on a compound annual basis. The table below reflects key indicators for the Beaumont-Port Arthur MSA.

Outlook for the Beaumont-Port Arthur Metropolitan Statistical Area: 2012-2040

Key Indicator	2012 Level	2040 Level	Growth Rate* 2012-2040	Increase 2012-2040
Real Gross Product (2012$)	$15.77 billion	$37.17 billion	3.11%	$21.40 billion
Population	387,115	446,980	0.51%	59,870
Wage & Salary Employment	171,000	249,500	1.36%	78,500
Real Personal Income (by place of residence in 2012$)	$14.17 billion	$39.78 billion	3.76%	$25.62 billion
Real Retail Sales (2012$)	$4.68 billion	$12.14 billion	3.46%	$7.46 billion

*Compound Annual Growth Rate, meaning that it reflects changes in the base from which growth is calculated.

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Lake Charles MSA

In Lake Charles, output (real gross product) is forecast to increase at a 3.07% annual pace, from an estimated $10.9 billion in 2012 to $25.3 billion by 2040. Real personal income (by place of residence) is projected to rise from $6.7 billion in 2012 to $18.4 billion by 2040, while real retail sales expand by $3.4 billion to reach $5.6 billion in 2040. Wage and salary employment in the Lake Charles MSA is projected to reach 134,300 in 2040, up from 94,300 in 2012.

Outlook for the Lake Charles Metropolitan Statistical Area: 2012-2040

Key Indicator	2012 Level	2040 Level	Growth Rate* 2012-2040	Increase 2012-2040
Real Gross Product (2012$)	$10.87 billion	$25.31 billion	3.07%	$14.44 billion
Population	203,170	235,920	0.54%	32,750
Wage & Salary Employment	94,330	134,310	1.27%	39,980
Real Personal Income (by place of residence in 2012$)	$6.74 billion	$18.42 billion	3.66%	$11.67 billion
Real Retail Sales (2012$)	$2.22 billion	$5.62 billion	3.36%	$3.40 billion

*Compound Annual Growth Rate, meaning that it reflects changes in the base from which growth is calculated.

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Golden Pass Primary Impact Area

For the Golden Pass primary impact area (the combined Beaumont-Port Arthur and Lake Charles MSAs), total expansion in output (real gross product) between 2012 and 2040 is expected to be $35.8 billion. The total population increase through 2040 is forecast to be more than 92,600, while employment rises by almost 118,500. Real personal income (by place of residence) is projected to rise by $37.3 billion by 2040, while real retail sales are forecast to expand by $10.9 billion to reach $17.8 billion in 2040. The table below reflects key indicators for the GPP primary impact area (including Jefferson County).

Outlook for the Golden Pass Products Primary Impact Area: 2012-2040

Key Indicator	2012 Level	2040 Level	Growth Rate* 2012-2040	Increase 2012-2040
Real Gross Product (2012$)	$26.64 billion	$62.48 billion	3.09%	$35.84 billion
Population	590,290	682,900	0.52%	92,620
Wage & Salary Employment	265,330	383,810	1.33%	118,480
Real Personal Income (by place of residence in 2012$)	$20.90 billion	$58.21 billion	3.73%	$37.30 billion
Real Retail Sales (2012$)	$6.90 billion	$17.76 billion	3.43%	$10.86 billion

*Compound Annual Growth Rate, meaning that it reflects changes in the base from which growth is calculated.

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ECONOMIC BENEFITS OF THE GOLDEN PASS PRODUCTS LNG EXPORT PROJECT

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ECONOMIC BENEFITS OF THE GOLDEN PASS PRODUCTS LNG EXPORT PROJECT

Demand for natural gas, both in the U.S. and internationally, has increased and continues to do so as a result of its thermal efficiencies and its clean burning, low emission qualities. Natural gas is viewed as being environmentally superior to coal and fuel oils. For this reason, natural gas has become the fuel of choice for numerous applications. From an international standpoint, many of the developing economies around the world are recognizing the value that natural gas provides to facilitate growth, from its low-cost to its environmentally sensitive properties, and are looking for additional sources for its use.

From the perspective of the U.S., the nation now finds itself with an increasing supply of natural gas as a consequence of refined gas exploration and production technology and the discovery of numerous major shale formations containing huge quantities. Converting natural gas to LNG for export would potentially serve to ensure the ongoing development of U.S. natural gas resources by providing access to world markets. Further, the ability to export domestic gas as LNG greatly expands the market scope and access for domestic natural gas producers, encouraging domestic production at times when U.S. market prices might not otherwise do so.

The Golden Pass Products Export Terminal

The Golden Pass Products initiative would add export capabilities to the existing LNG import terminal at Sabine Pass, Texas. Existing tanks, berths, and pipeline infrastructure would be utilized, thus minimizing environmental effects. The map below illustrates the location of the facilities.

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The investment in infrastructure to enable exports through the facility is expected to total $10 billion over an approximately five-year construction period.

Construction employment is likely to be about 9,000 person-years, with a peak of 3,000 jobs. Note that these estimates presume a work week of approximately 50 hours, whereas the full-time equivalent employment for modeling purposes is based on a traditional 40-hour week.

Once operational, Golden Pass Products will have an estimated send-out capacity of 15.6 million tons of liquefied natural gas per year.

The Perryman Group evaluated the potential economic benefits of exporting domestic sourced natural gas in the form of LNG through the proposed GPP export terminal in Jefferson County (Texas), the primary impact area (including Jefferson County), and the United States.

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Several sources of economic benefits stemming from the proposed GPP Export Project were measured. These include the impacts of:

- construction and pre-operational activity,
- ongoing operations,
- additional natural gas production, and
- associated potential development of facilities utilizing by-products such as methane.

Following an explanation of the methods used in this study, key summary results for each channel of economic effects are presented in tabular and graphical form. A sectoral breakout of gains in business activity is presented in the appendices to this report, together with additional methodological explanation.

Measuring Economic Impacts

It is readily recognized that any investment or corporate activity generates multiplier effects throughout the economy. Construction and development of a facility lead to purchases ranging from concrete to engineering services to landscaping. Ongoing operations also stimulate business activity through purchases and the expenditures by employees of payroll dollars for various goods and services.

More specifically, the construction and operation of a liquefaction facility will encourage further development of natural gas resources by providing a ready market for LNG exports. Exploration, drilling, production, servicing, pipeline development and operations, royalty payments, and other direct expenditures associated with natural gas exploration and production involve substantial gains.

Direct investments to construct and operate facilities needed to export LNG through the proposed GPP's export terminal would lead to a sizable stimulus in a variety of sectors, as well as generating carry-over benefits for an even wider range of businesses. Such an undertaking would also support substantial fiscal revenues for governments at all levels.

The Perryman Group's input output assessment model uses a variety of data (from surveys, industry information, and other sources) to describe the various goods and services (known as resources or inputs) required to produce another good/service. An associated fiscal model allows for

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estimation of tax receipts to state and local entities. The submodels used in the current analysis reflect the specific industrial composition and characteristics of Jefferson County, the primary impact area of southeast Texas and southwest Louisiana (including Jefferson County), and the United States. The key indicators reviewed are as follows:

- **Total expenditures** (or total spending) measure the dollars changing hands as a result of the economic stimulus.
- **Gross product** (or output) is production of goods and services that will come about in each area as a result of the activity. This measure is parallel to the gross domestic product numbers commonly reported by various media outlets and is a subset of total expenditures.
- **Personal income** is dollars that end up in the hands of people in the area; the vast majority of this aggregate derives from the earnings of employees, but payments such as interest and rents are also included.
- **Job gains** are expressed as **person-years** of employment (one person working for one year) for temporary projects (such as construction of a facility or cumulative assessments over time) or as permanent jobs when evaluating ongoing annual effects.

All results are expressed on an annual or a cumulative basis in constant (2012) dollars. Additional information is provided in the appendices to this report. Results are presented for the three geographic areas previously identified

- Jefferson County;
- the primary impact area (the Beaumont-Port Arthur and Lake Charles MSAs, including effects within Jefferson County); and
- the United States (which include effects for Jefferson County and the rest of the primary impact area as well as spillover to other states and regions).

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Construction and Pre-Operational Activity

Construction	
Economic Impact	
($M) Gross Product	19,960
Jobs	
(Person years)	228,350
Tax/Fiscal Benefits	
($M)	3,246

A substantial capital investment in new facilities will be required by GPP to facilitate the exportation of LNG. This construction activity and other pre-operational development lead to sizable gains in business activity in the local area, the primary impact area, and the rest of the United States. The area has a large construction workforce (relative to peak requirements) with extensive experience in refining and petrochemical facilities and related construction. As a result, virtually all of the workforce will likely be available in the region, and it is not anticipated that any temporary housing will be required or that construction workers would be housed in hotels to any significant degree. (Note that this analysis is limited to the GPP facilities and does not include the potential effects of other large projects that might be developed simultaneously in the region.)

GPP quantified the relevant costs; The Perryman Group reviewed these estimates and found that they were consistent with those of similar initiatives. TPG assumed that all initial costs conform to current projections, with direct purchases allocated across the local area, and region, and beyond based on capacity and historical patterns. GPP provided an estimate of the small portion of the procurement that would occur outside the U.S.

Gains in business activity for the U.S. stemming from construction and related outlays were found to include almost $20 billion in gross product and 228,350 person-years of employment. Jefferson County and the surrounding area would also see substantial economic benefits.

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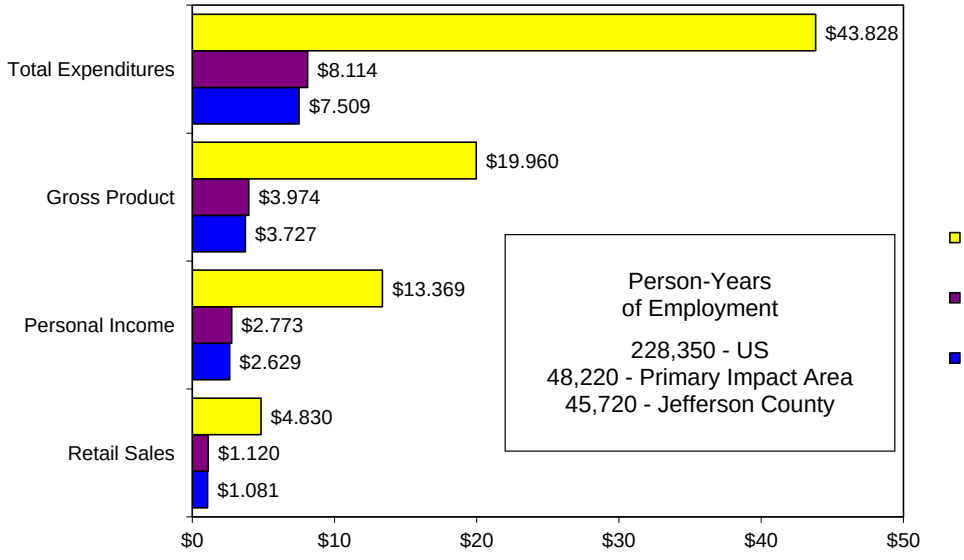
The Anticipated Cumulative Impact of Construction and Other Pre-Operational Activities Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity



*Assumes all initial costs conform to current projections. Direct purchases are allocated across the state and local areas based on capacity and historical patterns.
Source: The Perryman Group

In addition, the local areas, states of Texas and Louisiana, and the nation as a whole would also see an increase in tax receipts stemming from construction and pre-operational activities as depicted in the following table. (Although the fiscal outlays to support this project are unlikely to be significant, all fiscal effects reported throughout this analysis are determined on a "net" basis.)

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The Anticipated Cumulative Impact of Construction and Other Pre-Operational Activities Associated with the Implementation of the Proposed GPP Export Facilities on Business Activity and Tax Receipts (Monetary Values in Millions of Constant 2012 Dollars)			
ECONOMIC BENEFITS			
	Jefferson County	**Primary Impact Area** (Including Jefferson County)	**United States**
Total Expenditures	$7,509.4	$8,114.1	$43,827.8
Gross Product	$3,727.4	$3,974.4	$19,959.9
Personal Income	$2,629.1	$2,772.9	$13,368.9
Retail Sales	$1,081.3	$1,120.4	$4,829.7
Employment (Person-Years)	45,720	48,220	228,350
Employment (Average Annual)*	9,140	9,640	45,670
FISCAL BENEFITS			
Federal			$1,726.3
State (Texas)			$707.9
State (Louisiana)			$17.5
Other States			$276.2
Jefferson County			$106.0
Remainder of Primary Impact Area			$2.1
Other Governmental Entities Throughout the U.S.			$409.9
* Assumes all initial costs conform to current projections. Direct purchases are allocated across geographic areas based on capacity and historical patterns.			

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Analysis of the sectoral breakout of these effects indicates that the project could be expected to generate some 12,000 person-years of employment (based on a 40-hour week and considering multiplier effects) within the Jefferson County construction sector. The surrounding area and the U.S. would also experience broad-based increases.

Ongoing Operations of the Facilities

The GPP facilities would serve as an ongoing stimulus to the local area, region, and nation through purchases and payroll. GPP also has the potential to generate substantial net positive fiscal receipts to local taxing authorities, Texas, Louisiana, and the federal government.

Operations (25 yrs)	
Economic Impact	
($M) Gross Product	11,505
Jobs	
(Person years)	96,430
Tax/Fiscal Benefits	
($M)	1,402
Annual	56

Moreover, wages paid to the employees at the GPP export terminal are projected to be about 2.2 times the average levels for the region (according to data from the Bureau of Economic Analysis within the U.S. Department of Commerce). The region's large existing skilled workforce in the refining and petrochemical sectors and training programs at local colleges are sufficient to supply the workforce needs of the facilities, and the permanent workers should be available within the area. There is, thus, unlikely to be any significant change in population or housing demand given that the workers will be available locally.

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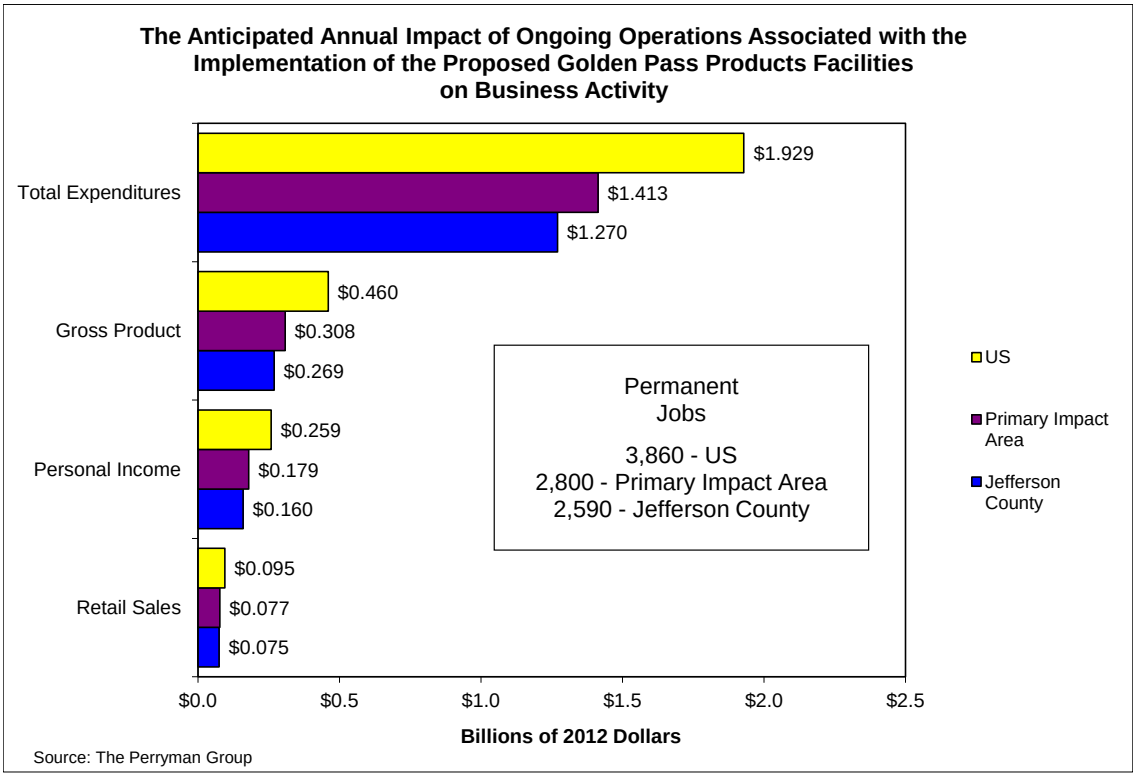
The economic benefits of ongoing operations of the GPP export terminal as of maturity (when operations begin) include almost $0.5 billion in U.S. gross product each year as well as 3,860 permanent jobs. These effects are concentrated in Jefferson County, with some 2,590 permanent jobs.



Incremental tax receipts at all levels are notable, including more than $25.9 million in federal taxes; amounts to other taxing authorities are presented in the table below.

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The Potential Annual Impact of Ongoing Operations of the Proposed GPP Export Facilities on Business Activity and Tax Receipts (Monetary Values in Millions of Constant 2012 Dollars)			
ECONOMIC BENEFITS			
	Jefferson County	**Primary Impact Area (Including Jefferson County)**	**United States**
Total Expenditures	$1,270.4	$1,413.5	$1,929.0
Gross Product	$268.9	$308.5	$460.2
Personal Income	$159.8	$179.2	$258.7
Retail Sales	$74.6	$77.2	$95.2
Employment (Permanent Jobs)	2,590	2,800	3,860
FISCAL BENEFITS			
Federal			$25.9
State (Texas)			$18.1
State (Louisiana)			$0.6
Other States			$2.0
Jefferson County			$6.5
Remainder of Primary Impact Area			$0.2
Other Governmental Entities Throughout the U.S.			$2.8

Once operational, the GPP export terminal will support jobs across a spectrum of industries. Nondurable manufacturing benefits as well as transportation and utilities (see tables in the Appendix for industrial detail).

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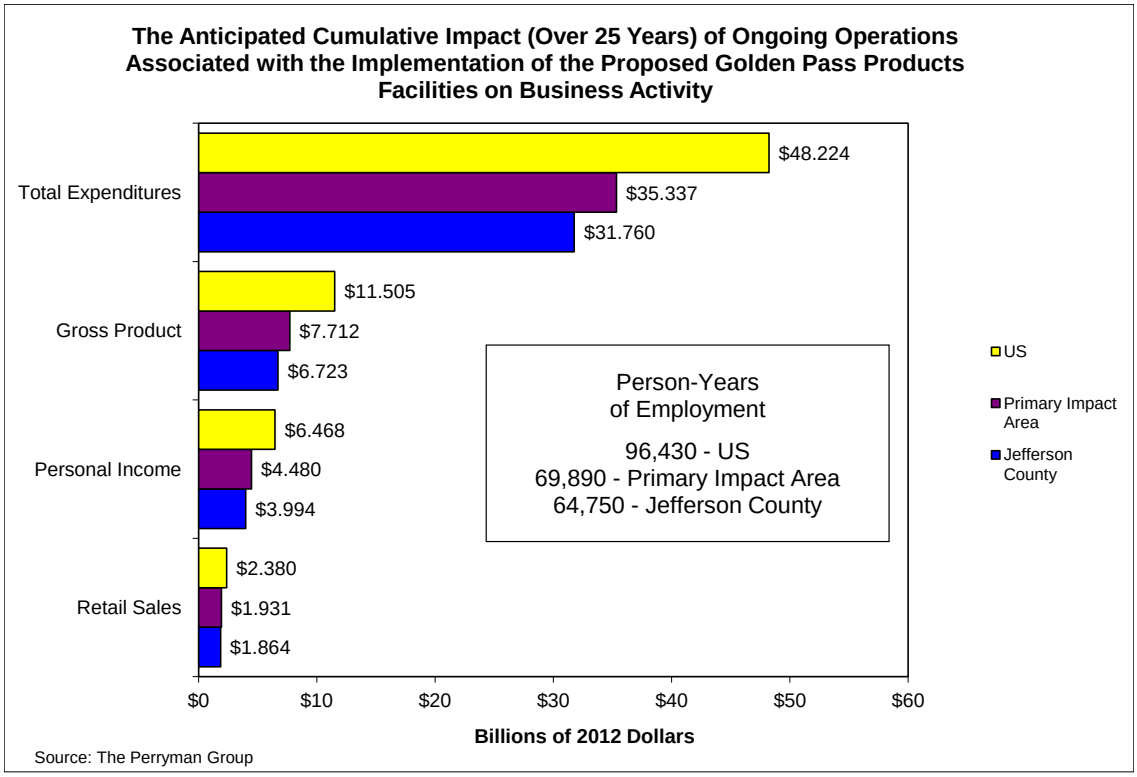
Cumulative Operations Effects

The first 25 years of operations of the GPP export terminal lead to cumulative gains in business activity including $11.5 billion in output in the U.S. as well as 96,430 person-years of employment. Again, these benefits are concentrated in Jefferson County and the primary impact area.



This economic activity, as illustrated in the following table, generates incremental receipts to all levels of government including $647.2 million to the federal government, and millions more to other taxing authorities as noted below.

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The Anticipated Cumulative Impact (Over 25 Years) of Ongoing Operations of Proposed GPP Export Facilities on Business Activity and Tax Receipts (Monetary Values in Millions of Constant 2012 Dollars)			
ECONOMIC BENEFITS			
	Jefferson County	**Primary Impact Area (including Jefferson County)**	**United States**
Total Expenditures	$31,760.2	$35,336.9	$48,224.4
Gross Product	$6,723.5	$7,712.4	$11,505.4
Personal Income	$3,994.3	$4,480.0	$6,468.4
Retail Sales	$1,864.2	$1,930.7	$2,380.2
Employment (Person-Years)	64,750	69,890	96,430
FISCAL BENEFITS			
Federal			$647.2
State (Texas)			$451.6
State (Louisiana)			$15.9
Other States			$49.7
Jefferson County			$161.5
Remainder of Primary Impact Area			$5.1
Other Governmental Entities Throughout the U.S.			$70.6

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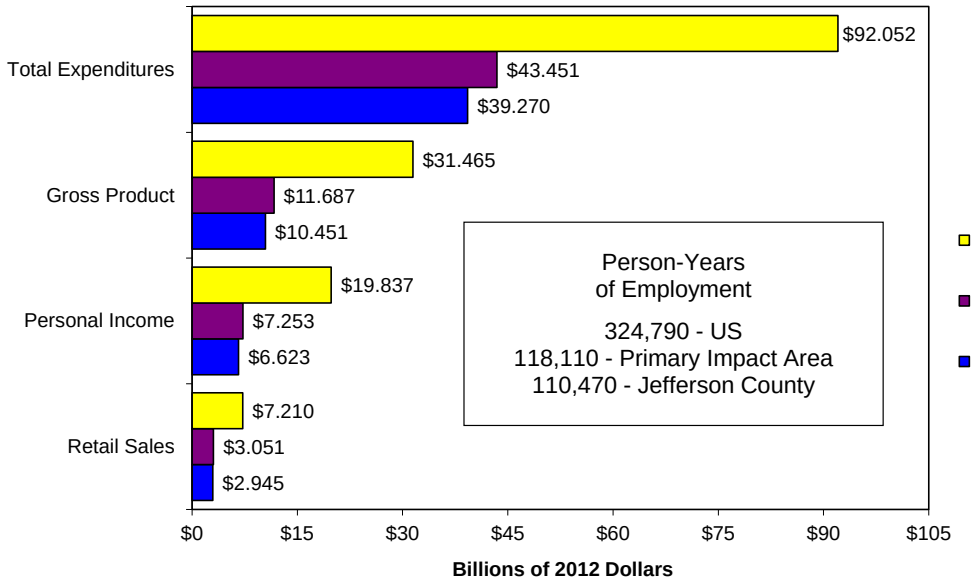
Total Construction and First 25 Years of Operations of the Facilities

Combining the effects of construction with the cumulative effects of the first 25 years of operations of the GPP export terminal indicates the substantial economic benefits of the facility.

For the nation as a whole, The Perryman Group estimates that the total cumulative impacts of construction and the first 25 years of operation of the facilities on business activity includes $31.5 billion in gross product and almost 324,790 person-years of employment.

The Anticipated Cumulative Impact of Construction and the First 25 Years of Operations Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity



*Assumes all initial costs conform to current projections. Direct purchases are allocated across the state and local areas based on capacity and historical patterns.
Source: The Perryman Group

Tax receipts from construction through the first 25 years of operation include almost $2.4 billion to the federal government. Tax receipts to other entities are listed in the following table.

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The Anticipated Cumulative Impact of Construction and the First 25 Years of Operations Associated with the Implementation of the Proposed Golden Pass LNG Facilities on Business Activity and Tax Receipts (Monetary Values in Millions of Constant 2012 Dollars)			
ECONOMIC BENEFITS			
	Jefferson County	**Primary Impact Area** (including Jefferson County)	**United States**
Total Expenditures	$39,269.6	$43,451.0	$92,052.2
Gross Product	$10,450.8	$11,686.8	$31,465.3
Personal Income	$6,623.4	$7,252.9	$19,837.3
Retail Sales	$2,945.5	$3,051.1	$7,209.9
Employment (Person-Years)	110,470	118,110	324,790
FISCAL BENEFITS			
Federal			$2,373.5
State (Texas)			$1,159.6
State (Louisiana)			$33.4
Other States			$325.9
Jefferson County			$267.5
Remainder of Primary Impact Area			$7.3
Other Governmental Entities Throughout the U.S.			$480.4
* Assumes all initial costs conform to current projections. Direct purchases are allocated across geographic areas based on capacity and historical patterns.			

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Enhanced Natural Gas Production

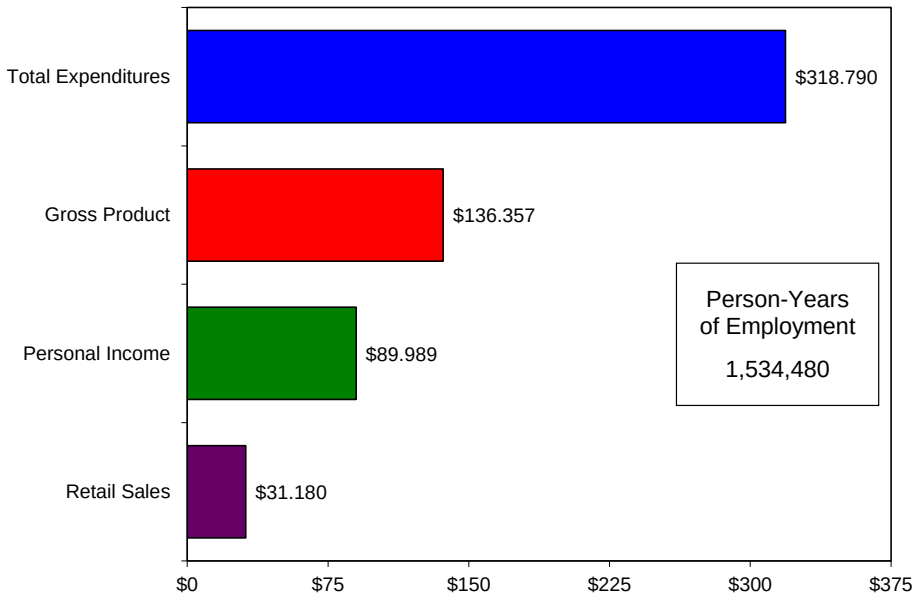
Exports through the Golden Pass Products facilities will also likely stimulate additional development of natural gas resources by providing a mechanism to export LNG. This development involves sizable investment in exploration and production activity and, thus, further economic stimulus.

The Perryman Group measured the cumulative economic benefits of enhanced production of natural gas over the first 25 years as well as the potential impact in a "typical" year. This analysis assumes new exploration and production activity follows recent patterns in terms of geographic placement.

Cumulative Incremental Natural Gas Exploration and Production Effects (Over 25 Years)

The cumulative incremental business activity stemming from enhanced production over 25 years includes an estimated $136.4 billion in gross product and 1,534,480 person-years of employment in the United States.

The Potential Cumulative Impact (Over 25 Years) of the Incremental Natural Gas Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the United States



Source: The Perryman Group

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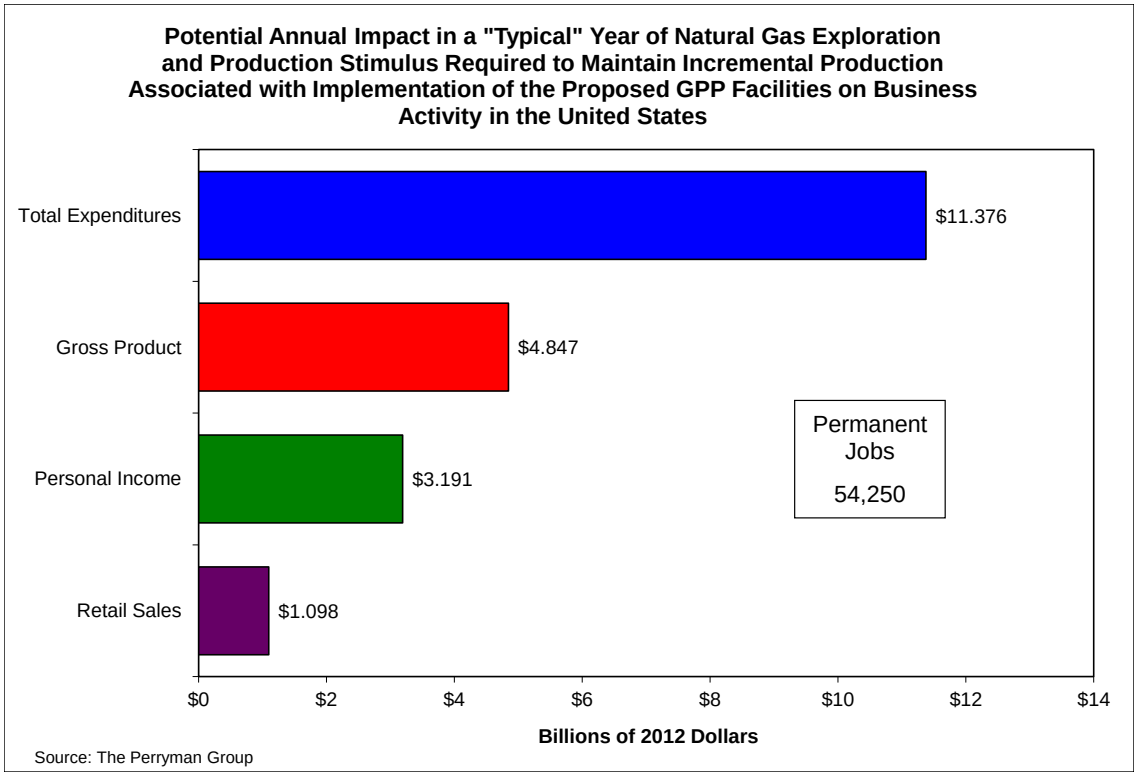
This substantial level of additional economic activity leads to additional tax receipts to the federal government of almost $15.6 billion, with notable gains to state and local taxing authorities. (These benefits are summarized in the table at the end of this section of the report.)

The largest portion of this activity occurs within the construction and retail trade sectors. The economic benefits to other sectors are illustrated in the Appendices to this report.

Incremental Natural Gas Production Effects in a "Typical" Year

The Perryman Group also quantified the likely incremental business activity stemming from natural gas production related to supplying the Golden Pass facility in a "typical" year, which is based on the average pattern over the course of the first 25 years (once the initial development has occurred and the needed supplies have reached sustainable levels). The "typical" year effects on business activity were estimated to be almost $4.8 billion in U.S. gross product and approximately 54,250 U.S. jobs.



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Production Effects

The following table summarizes economic and fiscal benefits stemming from enhanced natural gas exploration and production.

The Potential Impact of Incremental Natural Gas Production Associated with Golden Pass Products Facilities on Business Activity and Tax Receipts **(Monetary Values in Millions of Constant 2012 Dollars)**		
ECONOMIC BENEFITS		
	Potential Cumulative Impact Over First 25 Years	**Potential Annual Impact in a "Typical" Year**
Total Expenditures	$318,789.5	$11,376.1
Gross Product	$136,356.7	$4,847.0
Personal Income	$89,988.9	$3,191.4
Retail Sales	$31,179.7	$1,098.0
Employment	1,534,480 (Person-Years)	54,250 (Permanent Jobs)
FISCAL BENEFITS		
Federal	$15,597.1	$551.6
Texas	$6,833.6	$241.7
Other Governmental Entities Throughout the U.S.	$3,501.5	$123.8

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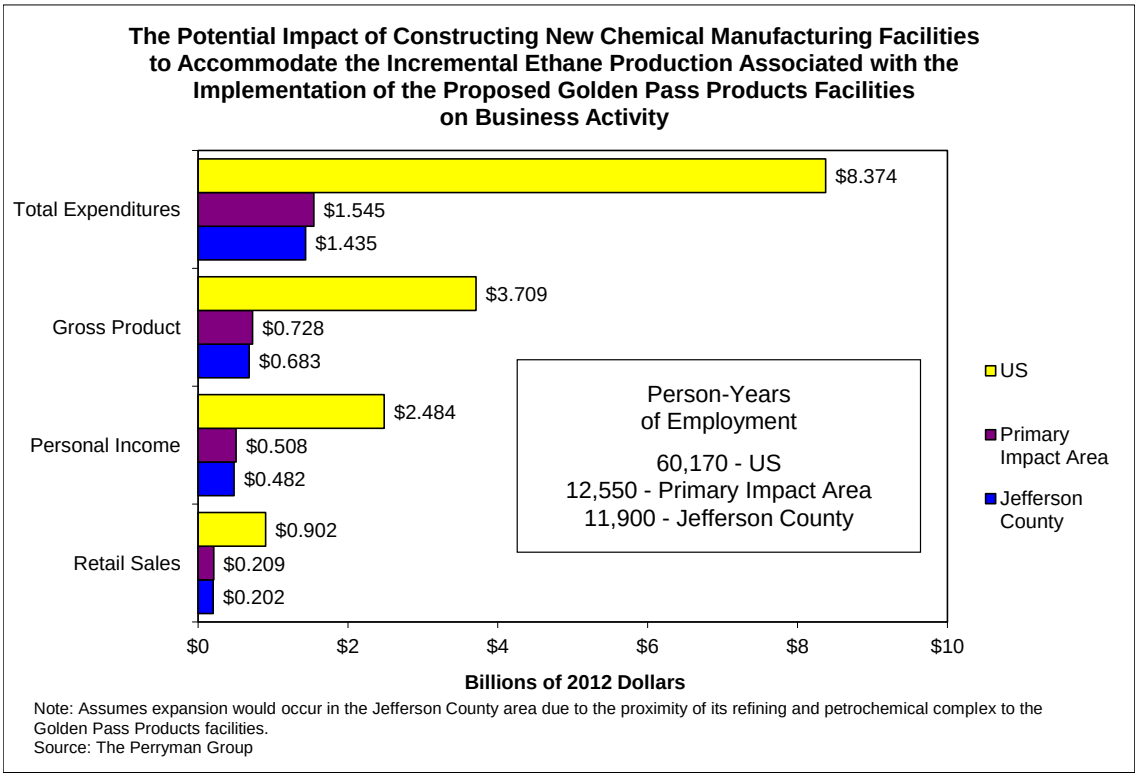
Potential Benefits from Liquid By-Products

Additional development in industries which utilize various liquid by-products (such as ethane) is a likely outcome stemming from the Golden Pass Products facilities.

A recent analysis by the American Chemical Council was utilized to quantify the potential new investment and production likely to occur in response to the greater availability of petroleum liquids. The region is already a site of numerous related industries, and further expansion could reasonably be expected and accommodated.

Construction of New Chemical Manufacturing Facilities

The economic benefits of construction of chemical facilities utilizing incremental ethane associated with the facility were estimated to include more than $3.7 billion in U.S. gross product and 60,170 person-years of employment.



Note: Assumes expansion would occur in the Jefferson County area due to the proximity of its refining and petrochemical complex to the Golden Pass Products facilities.
Source: The Perryman Group

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The incremental tax receipts associated with these economic benefits were estimated to be $268.6 million to the federal government. The benefits to other taxing authorities can be seen in the following table.

The Potential Impact of Constructing New Chemical Manufacturing Facilities to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity and Tax Receipts
(Monetary Values in Millions of Constant 2012 Dollars)

ECONOMIC BENEFITS			
	Jefferson County	**Primary Impact Area (Including. Jefferson County)**	**United States**
Total Expenditures	$1,434.7	$1,549.8	$8,374.1
Gross Product	$683.0	$728.4	$3,708.9
Personal Income	$481.5	$508.0	$2,484.1
Retail Sales	$201.9	$209.2	$901.7
Employment (Permanent Jobs)	11,900	12,550	60,170

FISCAL BENEFITS	
Federal	$268.6
State (Texas)	$187.4
State (Louisiana)	$6.6
Other States	$20.6
Jefferson County	$67.0
Remainder of the Primary Impact Area	$2.1
Other Governmental Entities Throughout the U.S.	$29.3

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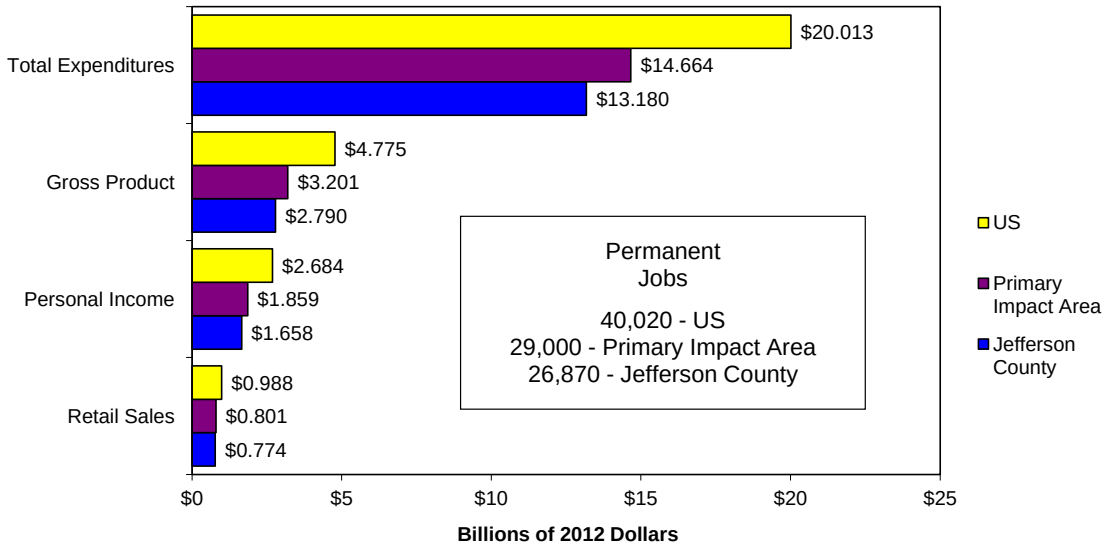
New Chemical Manufacturing Facilities Operations

Ongoing operations of these facilities have the potential to continue to generate economic benefits (measured at maturity) of almost $4.8 billion in U.S. gross product and 40,018 permanent jobs.

The Potential Annual Impact of New Chemical Manufacturing Operations (at Maturity) to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity



Note: Assumes expansion would occur in the Jefferson County area due to the proximity of its refining and petrochemical complex to the Golden Pass Products facilities.
Source: The Perryman Group

Tax effects include gains to the federal government of an estimated $355.9 million, with increases for state and local entities as described in the table below.

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The Potential Annual Impact of New Chemical Manufacturing Operations (at Maturity) to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity and Tax Receipts (Monetary Values in Millions of Constant 2012 Dollars)			
ECONOMIC BENEFITS			
	Jefferson County	**Primary Impact Area (Including Jefferson County)**	**United States**
Total Expenditures	$13,180.1	$14,664.4	$20,012.5
Gross Product	$2,790.2	$3,200.5	$4,774.6
Personal Income	$1,657.6	$1,859.1	$2,684.3
Retail Sales	$773.6	$801.2	$987.7
Employment (Permanent Jobs)	26,870	29,000	40,020
FISCAL BENEFITS			
Federal			$355.9
State (Texas)			$183.2
State (Louisiana)			$3.4
Other States			$4.9
Jefferson County			$24.5
Remainder of Primary Impact Area			$0.5
Other Governmental Entities Throughout the U.S.			$96.7

The nondurable manufacturing and retail trade segments of the economy would see notable increases in business activity.

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Other Potential Socioeconomic Effects

Given the availability of the necessary workforce in the local area, **it is not anticipated that the project will require any net new residences.** However, because of the creation of high paying direct and spinoff jobs, the value of local housing is likely to increase (as there is a demand for higher quality owner-occupied and rental housing). This value increment is estimated to be about $139.8 million in the primary impact area ($125.5 million in Jefferson County).

Because it is unlikely that hotels would be used to house construction workers to significant degree, incremental needs would stem primarily from visitors to the site such as off-site personnel or suppliers. (Recall that, as noted earlier, this analysis does not account for other regional facilities that could possibly be developed contemporaneously.) This relatively low volume is not likely to significantly affect local market conditions. While the impact assessment system is not designed to provide detailed estimates of economic outcomes such as truck trips, some conclusions can be drawn from trucking revenues and employment, which suggest an average of about 34 trips per day, with 58 during peak periods. The average number of round trips per day by workers during construction is about 2,140, with an estimated 3,560 during peak periods.

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Potential Consumer Price Effects

The Perryman Group performed a summary analysis of potential price effects for two ranges of natural gas price increase assumptions developed by Deloitte MarketPoint:[3]

- a potential 0.5% to 0.8% wholesale natural gas price increase (associated with Golden Pass Products specifically), and
- a potential 1% to 8% wholesale natural gas price increase (associated with overall LNG industry export volumes).

Using these ranges, The Perryman Group translated the pricing effects into potential outcomes on a per-household basis with respect to natural gas and electric utility rates.

This analysis made use of data such as average household spending for natural gas, spending by electric utilities for natural gas for power generation, typical consumption data regarding various utilities (including transmission and distribution), and other related series maintained by the U.S. Energy Information Administration.

For the 0.5% to 0.8% (GPP only) case, The Perryman Group estimates that the typical U.S. household would see an increase in outlays of $0.08-$0.12 per month (0.07%-0.11%). The corresponding potential effect on residential natural gas bills falls in the range of $0.06-$0.10 per month (0.08%-0.13%).

In the 1% to 8% (industry aggregate) case, The Perryman Group found that the typical U.S. household would see an increase in outlays of an estimated $0.15-$1.23 per month (0.14%-1.11%). The corresponding potential effect on residential natural gas bills falls in the range of $0.12-$0.96 per month (0.16%-1.11%).

Both cases assume that natural gas represents the marginal unit of fuel for power generation at all times (when it is not, it has no impact in areas with wholesale competition) and that all of the gas purchased by Golden Pass Products is delivered through the Henry Hub (the most proximate and most expensive major distribution point). It further assumes that unrelated market forces lead to a price recovery to $5.00 per mcf as an annual average as the facility begins operations.

[3] Deloitte MarketPoint LLC; "Economic Impact of LNG Exports from the United States;" prepared for Golden Pass Products LLC; September, 2012.

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There is a significant degree of uncertainty inherent in future natural gas prices, depending on many factors such as economic growth, technological advances, new discoveries and changes in supply, alternative fuels, and many others. In addition, it is important to consider conditions within an international framework given that export activity is involved. One recent study found that the price effects in the United States stemming from LNG exports are likely to diminish over time given international responses.[4]

[4] Kenneth B. Medlock III, PhD; "US LNG Exports: Truth and Consequence;" James A. Baker III Institute for Public Policy, Rice University; August 10, 2012.

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BENEFITS AND CONCLUSION

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BENEFITS AND CONCLUSION

Exporting natural gas through the proposed GPP export terminal would generate a substantial economic stimulus through construction and ongoing operations. The Perryman Group's analysis indicates that the GPP Export Project would lead to total economic gains of over $31 billion (gross product) in the U.S. and 324,790 person-years of employment. These sizable gains represent GPP's resonating impact on the U.S. economy through a broad array of industries and employment.

The Perryman Group estimates that if costs are incurred as projected (around $10 billion), construction and other pre-operational spending related to the GPP Export Project would lead to gains in business activity in the U.S. of $20 billion in output (gross product) and 228,350 person-years of employment or roughly 45,600 jobs nationwide per year during construction. A substantial portion of these effects would occur in Jefferson County and the surrounding area, which would also see significant economic benefits.

The economic benefits of ongoing operations of the GPP export terminal once it is fully operational include some $460.2 million in U.S. gross product each year (more than $11.5 billion over the project life) as well as 3,860 permanent jobs. These effects are also concentrated in Jefferson County, with some 2,590 permanent jobs.

Changes in the availability of U.S. natural gas supplies and the emerging needs for natural gas in the form of LNG in international markets have resulted in a situation where exporting LNG is a viable and attractive option with the prospect of both stimulating national business activity and improving the balance of trade. Investments in facilities for this purpose create substantial and long-lasting economic benefits in the United States.

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APPENDICES

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APPENDIX A: The Perryman Group

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The Perryman Group

- The Perryman Group is an economic research and analysis firm based in Waco, Texas. The firm has more than 30 years of experience in assessing the economic impact of corporate expansions, regulatory changes, real estate developments, public policy initiatives, and myriad other factors affecting business activity. TPG has conducted hundreds of impact analyses for local areas, regions, and states throughout the U.S. Impact studies have been performed for hundreds of clients including many of the largest corporations in the world, governmental entities at all levels, educational institutions, major health care systems, utilities, and economic development organizations.
- Dr. M. Ray Perryman, founder and President of the firm, developed the US Multi-Regional Impact Assessment System (used in this study) in the early 1980s and has consistently maintained, expanded, and updated it since that time. The model has been used in hundreds of diverse applications and has an excellent reputation for reliability.
- The firm has conducted numerous investigations related to the oil and gas industry. These analyses have included, among others, forecasts, impact assessments, regulatory and environmental issues, and legislative and policy initiatives. Previous work by The Perryman Group includes an assessment of the effects of offshore drilling for the U.S. Department of the Interior, several studies of specific production areas, and projections of natural gas prices and output. Information has been prepared for the Interstate Oil Compact Commission, the U.S. Department of Energy, the Texas Railroad Commission, and numerous legislative committees regarding energy policy. Additionally, over the past several years, TPG has performed multiple comprehensive assessments of the impact of the Barnett Shale on the local northeast Texas area and the state of Texas, as well as a detailed analysis of the labor market in the Permian Basin oil and gas producing area of west Texas. The firm has also completed in-depth analyses of numerous refineries and petrochemical facilities, various aspects of natural gas taxation in Texas and Arkansas, as well an analysis of another proposed liquefaction export project in Corpus Christi.
- In addition, TPG has conducted several projects related to the manufacturing benefits associated with a major international pipeline project. The firm has also completed numerous studies specifically dealing with changes in the cost of energy resources, including electricity, oil, and natural gas on both a regional and national basis.
- In addition, Dr. Perryman developed an econometric model of the area more than 30 years ago and has provided projections for the region on a continuing basis since the early 1980s. TPG has also conducted several projects specific to the region including a major economic development analysis and plan for the Southeast Texas region, a comprehensive assessment of the economic issues surrounding local water supply needs, an evaluation of issues related to electricity pricing and

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availability in the entire impact area, an impact analysis of Lamar University, a study of the Sabine-Neches Waterway and the potential net benefits of expansion projects, an evaluation of the potential benefits of asset hardening to reduce storm vulnerability in the region, and impact assessments of several major local employers.

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APPENDIX B: Detailed Methodology

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US Multi-Regional Impact Assessment System

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US Multi-Regional Impact Assessment System

- The basic modeling technique employed in this study is known as dynamic input-output analysis. This methodology essentially uses extensive survey data, industry information, and a variety of corroborative source materials to create a matrix describing the various goods and services (known as resources or inputs) required to produce one unit (a dollar's worth) of output for a given sector. Once the base information is compiled, it can be mathematically simulated to generate evaluations of the magnitude of successive rounds of activity involved in the overall production process.
- There are two essential steps in conducting an input-output analysis once the system is operational. The first major endeavor is to accurately define the levels of direct activity to be evaluated. In the case of a prospective evaluation, it is necessary to first calculate reasonable estimates of the direct activity.
- In this instance, data regarding construction costs and schedules and capacity was provided by Golden Pass and reviewed by The Perryman Group for reasonableness relative to similar initiatives. Anticipated staffing was estimated based on patterns in other facilities.
- A variety of sources of data regarding natural gas markets, oil and gas exploration and production patterns, experiences in other areas regarding development of firms utilizing liquid by-products such as ethane, and other information necessary to the analysis were collected and analyzed by The Perryman Group. TPG made use of a major recent analysis by the American Chemical Council regarding the use of natural gas liquids from shale gas activity, as well as available studies by major private groups and the Energy Information Administration regarding natural gas supplies and pricing. In addition, allocations of local direct contributions made use of extensive databases from the Bureau of Economic Analysis.
- The second major phase of the analysis is the simulation of the input-output system to measure overall economic effects. The present study was conducted within the context of the US Multi-Regional Impact Assessment System (USMRIAS) which was developed and is maintained by The Perryman Group. This model has been used in hundreds of diverse applications across the country and has an excellent reputation for accuracy and credibility. The systems used in the current simulations reflect the unique industrial structures and characteristics of the Jefferson County, study area of southeast Texas and southwest Louisiana, and United States economies. The system was also used in defining the Impact Area, as simulations indicated sufficient spillover activity to establish benefits to the Beaumont-Port Arthur and Lake Charles Metropolitan Statistical Areas (MSAs).
- The USMRIAS is somewhat similar in format to the Input-Output Model of the United States and the Regional Input-Output Modeling System, both of which are maintained by the US Department of Commerce. The model developed by TPG, however, incorporates several important enhancements and refinements. Specifically, the expanded system includes (1) comprehensive 500-sector coverage

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for any county, multi-county, or urban region; (2) calculation of both total expenditures and value-added by industry and region; (3) direct estimation of expenditures for multiple basic input choices (expenditures, output, income, or employment); (4) extensive parameter localization; (5) price adjustments for real and nominal assessments by sectors and areas; (6) measurement of the induced impacts associated with payrolls and consumer spending; (7) embedded modules to estimate multi-sectoral direct spending effects; (8) estimation of retail spending activity by consumers; and (9) comprehensive linkage and integration capabilities with a wide variety of econometric, real estate, occupational, and fiscal impact models. Moreover, the model uses specific local taxing patterns to estimate the fiscal effects of activity on a detailed sectoral basis. The models used for the present investigation have been thoroughly tested for reasonableness and historical reliability.

- The impact assessment (input-output) process essentially estimates the amounts of all types of goods and services required to produce one unit (a dollar's worth) of a specific type of output. For purposes of illustrating the nature of the system, it is useful to think of inputs and outputs in dollar (rather than physical) terms. As an example, the construction of a new building will require specific dollar amounts of lumber, glass, concrete, hand tools, architectural services, interior design services, paint, plumbing, and numerous other elements. Each of these suppliers must, in turn, purchase additional dollar amounts of inputs. This process continues through multiple rounds of production, thus generating subsequent increments to business activity. The initial process of building the facility is known as the *direct effect*. The ensuing transactions in the output chain constitute the *indirect effect*.
- Another pattern that arises in response to any direct economic activity comes from the payroll dollars received by employees at each stage of the production cycle. As workers are compensated, they use some of their income for taxes, savings, and purchases from external markets. A substantial portion, however, is spent locally on food, clothing, healthcare services, utilities, housing, recreation, and other items. Typical purchasing patterns in the relevant areas are obtained from the *ACCRA Cost of Living Index*, a privately compiled inter-regional measure which has been widely used for several decades, and the *Consumer Expenditure Survey* of the US Department of Labor. These initial outlays by area residents generate further secondary activity as local providers acquire inputs to meet this consumer demand. These consumer spending impacts are known as the *induced effect*. The USMRIAS is designed to provide realistic, yet conservative, estimates of these phenomena.
- Sources for information used in this process include the Bureau of the Census, the Bureau of Labor Statistics, the Regional Economic Information System of the US Department of Commerce, and other public and private sources. The pricing data are compiled from the US Department of Labor and the US Department of Commerce. The verification and testing procedures make use of extensive public and private sources. Note that all monetary values are given in constant (2012) dollars to eliminate the effects of inflation.

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- The USMRIAS generates estimates of the effect on several measures of business activity. The most comprehensive measure of economic activity used in this study is **Total Expenditures**. This measure incorporates every dollar that changes hands in any transaction. For example, suppose a farmer sells wheat to a miller for $0.50; the miller then sells flour to a baker for $0.75; the baker, in turn, sells bread to a customer for $1.25. The Total Expenditures recorded in this instance would be $2.50, that is, $0.50 + $0.75 + $1.25. This measure is quite broad, but is useful in that (1) it reflects the overall interplay of all industries in the economy, and (2) some key fiscal variables such as sales taxes are linked to aggregate spending.
- A second measure of business activity frequently employed in this analysis is that of **Gross Product**. This indicator represents the regional equivalent of Gross Domestic Product, the most commonly reported statistic regarding national economic performance. In other words, the Gross Product of Arkansas is the amount of US output that is produced in that state; it is defined as the value of all final goods produced in a given region for a specific period of time. Stated differently, it captures the amount of value-added (gross area product) over intermediate goods and services at each stage of the production process, that is, it eliminates the double counting in the Total Expenditures concept. Using the example above, the Gross Product is $1.25 (the value of the bread) rather than $2.50. Alternatively, it may be viewed as the sum of the value-added by the farmer, $0.50; the miller, $0.25 ($0.75 - $0.50); and the baker, $0.50 ($1.25 - $0.75). The total value-added is, therefore, $1.25, which is equivalent to the final value of the bread. In many industries, the primary component of value-added is the wage and salary payments to employees.
- The third gauge of economic activity used in this evaluation is **Personal Income**. As the name implies, Personal Income is simply the income received by individuals, whether in the form of wages, salaries, interest, dividends, proprietors' profits, or other sources. It may thus be viewed as the segment of overall impacts which flows directly to the citizenry.
- The fourth measure, **Retail Sales**, represents the component of Total Expenditures which occurs in retail outlets (general merchandise stores, automobile dealers and service stations, building materials stores, food stores, drugstores, restaurants, and so forth). Retail Sales is a commonly used measure of consumer activity.
- The final aggregates used are **Permanent Jobs and Person-Years of Employment**. The Person-Years of Employment measure reveals the full-time equivalent jobs generated by an activity. It should be noted that, unlike the dollar values described above, Permanent Jobs is a "stock" rather than a "flow." In other words, if an area produces $1 million in output in 2010 and $1 million in 2011, it is appropriate to say that $2 million was achieved in the 2010-2011 period. If the same area has 100 people working in 2010 and 100 in 2011, it only has 100 Permanent Jobs. When a flow of jobs is measured, such as in a construction project or a cumulative assessment over multiple years, it is appropriate to measure employment in Person-Years (a person working for a year). This concept is distinct from

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Permanent Jobs, which anticipates that the relevant positions will be maintained on a continuing basis.

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Econometric Model

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The Econometric Model

Overview

- The Texas Econometric Model was developed by Dr. M. Ray Perryman, President and CEO of The Perryman Group (TPG) more than 30 years ago and has been consistently maintained and updated since that time. Though initially focused on Texas, it includes capabilities for projecting business activity in the United States and other states (in this case, Louisiana). It is formulated in an internally consistent manner and is designed to permit the integration of relevant global, national, state, and local factors into the projection process. It is the result of more than three decades of continuing research in econometrics, economic theory, statistical methods, and key policy issues and behavioral patterns, as well as intensive, ongoing study of local, regional, and national economies. It is extensively used by scores of federal and State governmental entities on an ongoing basis, as well as hundreds of major corporations.
- In this instance, the econometric model was used to describe current and projected economic activity in the study area, as well as to evaluate labor availability.
- This section describes the forecasting process in a comprehensive manner, focusing on both the modeling and the supplemental analysis. The overall methodology, while certainly not ensuring perfect foresight, permits an enormous body of relevant information to impact the economic outlook in a systematic manner.

Model Logic and Structure

- The original Texas Econometric Model and its multi-regional extension revolve around a core system which projects output (real and nominal), income (real and nominal), and employment by industry in a simultaneous manner. For purposes of illustration, it is useful to initially consider the employment functions. Essentially, employment within the system is a derived demand relationship obtained from a neo-Classical production function. The expressions are augmented to include dynamic temporal adjustments to changes in relative factor input costs, output and (implicitly) productivity, and technological progress over time. Thus, the typical equation includes output, the relative real cost of labor and capital, dynamic lag structures, and a technological adjustment parameter. The functional form is logarithmic, thus preserving the theoretical consistency with the neo-Classical formulation.
- The income segment of the model is divided into wage and non-wage components. The wage equations, like their employment counterparts, are individually estimated at the 3-digit North American Industry Classification System (NAICS) level of aggregation. Hence, income by place of work is measured for approximately 90

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production categories. The wage equations measure real compensation, with the form of the variable structure differing between "basic" and "non-basic."

- The basic industries, comprised primarily of the various components of Mining, Agriculture, and Manufacturing, are export-oriented, i.e., they bring external dollars into the area and form the core of the economy. The production of these sectors typically flows into national and international markets; hence, the labor markets are influenced by conditions in areas beyond the borders of the particular region. Thus, real (inflation-adjusted) wages in the basic industry are expressed as a function of the corresponding national rates, as well as measures of local labor market conditions (the reciprocal of the unemployment rate), dynamic adjustment parameters, and ongoing trends.
- The "non-basic" sectors are somewhat different in nature, as the strength of their labor markets is linked to the health of the local export sectors. Consequently, wages in these industries are related to those in the basic segment of the economy. The relationship also includes the local labor market measures contained in the basic wage equations.
- Note that compensation rates in the export or "basic" sectors provide a key element of the interaction of the regional economies with national and international market phenomena, while the "non-basic" or local industries are strongly impacted by area production levels. Given the wage and employment equations, multiplicative identities in each industry provide expressions for total compensation; these totals may then be aggregated to determine aggregate wage and salary income. Simple linkage equations are then estimated for the calculation of personal income by place of work.
- The non-labor aspects of personal income are modeled at the regional level using straightforward empirical expressions relating to national performance, dynamic responses, and evolving temporal patterns. In some instances (such as dividends, rents, and others) national variables (for example, interest rates) directly enter the forecasting system. These factors have numerous other implicit linkages into the system resulting from their simultaneous interaction with other phenomena in national and international markets which are explicitly included in various expressions.
- The output or gross area product expressions are also developed at the 3-digit NAICS level. Regional output for basic industries is linked to national performance in the relevant industries, local and national production in key related sectors, relative area and national labor costs in the industry, dynamic adjustment parameters, and ongoing changes in industrial interrelationships (driven by technological changes in production processes).
- Output in the non-basic sectors is modeled as a function of basic production levels, output in related local support industries (if applicable), dynamic temporal adjustments, and ongoing patterns. The inter-industry linkages are obtained from the input-output (impact assessment) system which is part of the overall integrated modeling structure maintained by The Perryman Group. Note that the dominant component of the econometric system involves the simultaneous estimation and

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projection of output (real and nominal), income (real and nominal), and employment at a disaggregated industrial level. This process, of necessity, also produces projections of regional price deflators by industry. These values are affected by both national pricing patterns and local cost variations and permit changes in prices to impact other aspects of economic behavior. Income is converted from real to nominal terms using the appropriate regional Consumer Price Index, which fluctuates in response to national pricing patterns as well as unique local phenomena.

- Several other components of the model are critical to the forecasting process. The demographic module includes (1) a linkage equation between wage and salary (establishment) employment and household employment, (2) a labor force participation rate function, and (3) a complete population system with endogenous migration. Given household employment, labor force participation (which is a function of economic conditions and evolving patterns of worker preferences), and the working age population, the unemployment rate and level become identities.
- The population system uses Census information, fertility rates, and life tables to determine the "natural" changes in population by age group. Migration, the most difficult segment of population dynamics to track, is estimated in relation to relative regional and extra-regional economic conditions over time. Because evolving economic conditions determine migration in the system, population changes are allowed to interact simultaneously with overall economic conditions. Through this process, migration is treated as endogenous to the system, thus allowing population to vary in accordance with relative business performance (particularly employment).
- Real retail sales is related to income, interest rates, dynamic adjustments, and patterns in consumer behavior on a store group basis. It is expressed on an inflation-adjusted basis. Inflation at the state level relates to national patterns, indicators of relative economic conditions, and ongoing trends.
- A final significant segment of the forecasting system relates to real estate absorption and activity. The short-term demand for various types of property is determined by underlying economic and demographic factors, with short-term adjustments to reflect the current status of the pertinent building cycle. In some instances, this portion of the forecast requires integration with the Multi-Regional Industry-Occupation System which is maintained by The Perryman Group.
- The overall Texas Econometric Model and its multi-regional extension contain numerous additional specifications, and individual expressions are modified to reflect alternative lag structures, empirical properties of the estimates, simulation requirements, and similar phenomena. Moreover, they are updated on an ongoing basis as new data releases become available. Nonetheless, the above synopsis offers a basic understanding of the overall structure and underlying logic of the overall system.

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Model Simulation and Multi-Regional Structure

- The initial phase of the simulation process is the execution of a standard non-linear algorithm for the state system and that of each of the individual sub-areas. The external assumptions are derived from scenarios developed through national and international models and extensive analysis by The Perryman Group. The US model, which follows the basic structure outlined above, was used to some extent in the current analysis to define the demand for domestically produced goods on a per capita basis.
- Once the initial simulations are completed, they are merged into a single system with additive constraints and interregional flows. Using information on minimum regional requirements, import needs, export potential, and locations, it becomes possible to balance the various forecasts into a mathematically consistent set of results. This process is, in effect, a disciplining exercise with regard to the individual regional (including metropolitan and rural) systems. By compelling equilibrium across all regions and sectors, the algorithm ensures that the patterns in state activity are reasonable in light of smaller area dynamics and, conversely, that the regional outlooks are within plausible performance levels for the state as a whole.
- The iterative simulation process has the additional property of imposing a global convergence criterion across the entire multi-regional system, with balance being achieved simultaneously on both a sectoral and a geographic basis. This approach is particularly critical on non-linear dynamic systems, as independent simulations of individual systems often yield unstable, non-convergent outcomes.
- It should be noted that the underlying data for the modeling and simulation process are frequently updated and revised by the various public and private entities compiling them. Whenever those modifications to the database occur, they bring corresponding changes to the structural parameter estimates of the various systems and the solutions to the simulation and forecasting system. The multi-regional version of the model is re-estimated and simulated with each such data release, thus providing a constantly evolving and current assessment of state and local business activity.

The Final Forecast

- The process described above is followed to produce an initial set of projections. Through the comprehensive multi-regional modeling and simulation process, a systematic analysis is generated which accounts for both historical patterns in economic performance and inter-relationships and best available information on the future course of pertinent external factors. While the best available techniques and data are employed in this effort, they are not capable of directly capturing “street sense,” i.e., the contemporaneous and often non-quantifiable information that can materially affect economic outcomes. In order to provide a comprehensive approach to the prediction of business conditions, it is necessary to compile and assimilate

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extensive material regarding current events and factors both across the state of Texas, any extended regional areas (such as southwest Louisiana in the current instance), and elsewhere.

- This critical aspect of the forecasting methodology includes activities such as (1) daily review of hundreds of financial and business publications and electronic information sites; (2) review of all major newspapers in the state on a daily basis; (3) dozens of hours of direct telephone interviews with key business and political leaders in all parts of the state; (4) face-to-face discussions with representatives of major industry groups; and (5) frequent site visits to the various regions of the state. The insights arising from this "fact finding" are analyzed and evaluated for their effects on the likely course of the future activity.
- Another vital information resource stems from the firm's ongoing interaction with key players in the international, domestic, and state economic scenes. Such activities include visiting with corporate groups on a regular basis and being regularly involved in the policy process at all levels. The firm is also an active participant in many major corporate relocations, economic development initiatives, and regulatory proceedings.
- Once organized, this information is carefully assessed and, when appropriate, independently verified. The impact on specific communities and sectors that is distinct from what is captured by the econometric system is then factored into the forecast analysis. For example, the opening or closing of a major facility, particularly in a relatively small area, can cause a sudden change in business performance that will not be accounted for by either a modeling system based on historical relationships or expected (primarily national and international) factors.
- The final step in the forecasting process is the integration of this material into the results in a logical and mathematically consistent manner. In some instances, this task is accomplished through "constant adjustment factors" which augment relevant equations. In other cases, anticipated changes in industrial structure or regulatory parameters are initially simulated within the context of the Multi-Regional Impact Assessment System to estimate their ultimate effects by sector. Those findings are then factored into the simulation as constant adjustments on a distributed temporal basis. Once this scenario is formulated, the extended system is again balanced across regions and sectors through an iterative simulation algorithm analogous to that described in the preceding section.

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APPENDIX C: Detailed Sectoral Results

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Construction and Pre-Operational Activity

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The Anticipated Cumulative Impact of Construction and Other Pre-Operational Activities Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in Jefferson County				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$58,172,976	$17,673,864	$11,244,905	177
Mining	$8,706,576	$2,017,033	$963,743	5
Construction	$2,207,037,663	$1,033,665,847	$851,805,037	12,011
Nondurable Manufacturing	$445,104,133	$97,651,603	$50,717,160	678
Durable Manufacturing	$816,291,898	$316,690,830	$206,786,014	3,414
Transportation and Utilities	$498,250,106	$211,803,346	$126,349,520	1,491
Information	$99,685,790	$61,435,294	$26,569,039	250
Wholesale Trade	$180,891,492	$122,412,796	$70,584,308	789
Retail Trade	$1,081,275,032	$813,866,791	$473,607,588	14,417
Finance, Insurance, and Real Estate	$615,486,018	$135,487,473	$60,665,176	624
Business Services	$823,248,042	$520,555,651	$424,640,023	5,166
Health Services	$253,912,716	$177,529,493	$150,102,833	2,479
Other Services	$421,289,766	$216,563,873	$175,025,281	4,213
TOTAL	**$7,509,352,208**	**$3,727,353,893**	**$2,629,060,626**	**45,716**

Source: US Multi-Regional Impact Assessment System, The Perryman Group

*Assumes all initial costs conform to current projections. Direct purchases are allocated across geographic areas based on capacity and historical patterns.

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The Anticipated Cumulative Impact of Construction and Other Pre-Operational Activities Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the Primary Impact Area (including Jefferson County)				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$58,254,103	$17,742,860	$11,270,494	177
Mining	$55,273,331	$13,481,192	$7,394,557	46
Construction	$2,211,999,402	$1,036,308,596	$853,982,831	12,042
Nondurable Manufacturing	$584,862,941	$152,511,542	$79,034,430	1,197
Durable Manufacturing	$983,953,013	$378,151,546	$248,301,122	4,091
Transportation and Utilities	$529,340,828	$227,979,847	$136,539,761	1,622
Information	$126,639,687	$78,054,383	$33,683,015	314
Wholesale Trade	$195,926,217	$132,585,667	$76,450,075	855
Retail Trade	$1,120,379,089	$843,172,758	$490,639,042	14,939
Finance, Insurance, and Real Estate	$710,849,443	$159,513,329	$69,001,041	713
Business Services	$823,248,042	$520,555,651	$424,640,023	5,166
Health Services	$262,864,143	$183,809,635	$155,412,748	2,567
Other Services	$450,513,788	$230,525,164	$186,533,141	4,485
TOTAL	**$8,114,104,027**	**$3,974,392,171**	**$2,772,882,279**	**48,215**

Source: US Multi-Regional Impact Assessment System, The Perryman Group

*Assumes all initial costs conform to current projections. Direct purchases are allocated across geographic areas based on capacity and historical patterns.

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The Anticipated Cumulative Impact of Construction and Other Pre-Operational Activities Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the United States				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$612,536,213	$179,920,461	$117,091,409	1,851
Mining	$610,313,092	$149,876,044	$85,385,299	542
Construction	$9,430,845,454	$4,418,682,480	$3,641,269,567	51,348
Nondurable Manufacturing	$6,188,693,714	$1,652,508,714	$853,234,572	14,123
Durable Manufacturing	$6,029,123,037	$2,338,491,465	$1,521,931,210	24,296
Transportation and Utilities	$3,090,209,927	$1,239,264,526	$725,935,238	8,292
Information	$727,559,448	$448,164,328	$193,338,142	1,799
Wholesale Trade	$1,455,289,682	$984,805,659	$567,847,714	6,350
Retail Trade	$4,829,717,015	$3,635,456,551	$2,115,582,671	64,394
Finance, Insurance, and Real Estate	$4,646,025,128	$1,163,294,981	$476,794,013	4,966
Business Services	$2,993,852,149	$1,905,473,457	$1,554,378,081	18,912
Health Services	$1,102,506,683	$771,506,506	$652,315,896	10,774
Other Services	$2,111,140,430	$1,072,427,096	$863,782,914	20,709
TOTAL	**$43,827,811,971**	**$19,959,872,268**	**$13,368,886,727**	**228,354**

Source: US Multi-Regional Impact Assessment System, The Perryman Group

*Assumes all initial costs conform to current projections. Direct purchases are allocated across geographic areas based on capacity and historical patterns.

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Ongoing Operations of the Facility

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The Anticipated Annual Impact of Ongoing Operations of Golden Pass Products Facilities on Business Activity in Jefferson County				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Permanent Jobs)*
Agriculture	$4,416,178	$1,430,984	$893,489	14
Mining	$24,281,841	$5,332,261	$2,462,243	12
Construction	$35,504,580	$19,421,412	$16,004,453	226
Nondurable Manufacturing	$869,466,230	$74,933,147	$35,700,067	292
Durable Manufacturing	$17,643,042	$6,510,496	$4,325,512	65
Transportation and Utilities	$86,331,441	$27,703,518	$16,086,309	181
Information	$8,269,542	$5,109,615	$2,204,138	20
Wholesale Trade	$18,087,220	$12,224,928	$7,049,002	79
Retail Trade	$74,567,958	$55,222,215	$32,000,045	996
Finance, Insurance, and Real Estate	$56,443,465	$17,128,851	$6,910,695	68
Business Services	$28,077,584	$16,426,026	$13,399,429	163
Health Services	$17,307,231	$12,099,766	$10,230,466	169
Other Services	$30,013,119	$15,395,331	$12,505,929	306
TOTAL	$1,270,409,431	$268,938,550	$159,771,778	2,590
Source: US Multi-Regional Impact Assessment System, The Perryman Group				

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The Anticipated Annual Impact of Ongoing Operations of Golden Pass Products Facilities on Business Activity in the Primary Impact Area (including Jefferson County)				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Permanent Jobs)*
Agriculture	$4,418,557	$1,433,473	$894,414	14
Mining	$128,240,636	$28,210,885	$13,125,517	65
Construction	$35,719,411	$19,531,506	$16,095,175	227
Nondurable Manufacturing	$882,267,806	$80,075,020	$38,337,110	340
Durable Manufacturing	$21,111,613	$7,741,555	$5,185,691	78
Transportation and Utilities	$89,535,675	$29,072,742	$16,958,738	192
Information	$10,947,961	$6,766,987	$2,912,996	27
Wholesale Trade	$19,191,283	$12,971,369	$7,479,408	84
Retail Trade	$77,228,143	$57,219,007	$33,161,091	1,031
Finance, Insurance, and Real Estate	$66,787,966	$20,168,476	$7,768,310	77
Business Services	$28,077,584	$16,426,026	$13,399,429	163
Health Services	$17,863,652	$12,494,143	$10,563,913	174
Other Services	$32,085,377	$16,384,348	$13,318,123	324
TOTAL	$1,413,475,665	$308,495,536	$179,199,916	2,796
Source: US Multi-Regional Impact Assessment System, The Perryman Group				

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The Anticipated Annual Impact of Ongoing Operations of Golden Pass Products Facilities on Business Activity in the United States				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Permanent Jobs)*
Agriculture	$12,574,540	$3,852,972	$2,477,299	39
Mining	$299,769,405	$65,994,012	$30,836,771	154
Construction	$39,013,845	$21,284,381	$17,539,655	248
Nondurable Manufacturing	$1,020,836,080	$107,422,016	$52,401,858	570
Durable Manufacturing	$41,718,609	$15,782,218	$10,413,548	145
Transportation and Utilities	$140,307,295	$43,037,326	$24,351,196	260
Information	$17,492,055	$10,806,721	$4,651,806	43
Wholesale Trade	$36,598,485	$24,738,203	$14,264,269	159
Retail Trade	$95,206,587	$70,647,786	$40,958,693	1,271
Finance, Insurance, and Real Estate	$126,792,701	$39,730,324	$14,144,932	142
Business Services	$35,302,241	$20,692,970	$16,880,164	205
Health Services	$21,072,194	$14,765,173	$12,484,089	206
Other Services	$42,291,405	$21,462,265	$17,332,313	416
TOTAL	$1,928,975,440	$460,216,368	$258,736,591	3,857
Source: US Multi-Regional Impact Assessment System, The Perryman Group				

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The Anticipated Cumulative Impact (Over 25 Years) of Ongoing Operations of Proposed Golden Pass Products Facilities on Business Activity in Jefferson County				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$110,404,448	$35,774,612	$22,337,225	348
Mining	$607,046,033	$133,306,522	$61,556,075	300
Construction	$887,614,491	$485,535,300	$400,111,324	5,648
Nondurable Manufacturing	$21,736,655,749	$1,873,328,679	$892,501,685	7,308
Durable Manufacturing	$441,076,038	$162,762,389	$108,137,798	1,618
Transportation and Utilities	$2,158,286,023	$692,587,958	$402,157,731	4,513
Information	$206,738,550	$127,740,363	$55,103,461	512
Wholesale Trade	$452,180,496	$305,623,201	$176,225,053	1,970
Retail Trade	$1,864,198,961	$1,380,555,372	$800,001,117	24,888
Finance, Insurance, and Real Estate	$1,411,086,635	$428,221,286	$172,767,372	1,710
Business Services	$701,939,593	$410,650,648	$334,985,727	4,073
Health Services	$432,680,781	$302,494,145	$255,761,658	4,225
Other Services	$750,327,985	$384,883,271	$312,648,227	7,641
TOTAL	$31,760,235,782	$6,723,463,744	$3,994,294,453	64,750
Source: US Multi-Regional Impact Assessment System, The Perryman Group				

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The Anticipated Cumulative Impact (Over 25 Years) of Ongoing Operations of Proposed Golden Pass Products Facilities on Business Activity in the Primary Impact Area (including Jefferson County)				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$110,463,926	$35,836,833	$22,360,354	348
Mining	$3,206,015,910	$705,272,126	$328,137,924	1,626
Construction	$892,985,285	$488,287,645	$402,379,376	5,676
Nondurable Manufacturing	$22,056,695,157	$2,001,875,494	$958,427,742	8,506
Durable Manufacturing	$527,790,315	$193,538,879	$129,642,274	1,944
Transportation and Utilities	$2,238,391,876	$726,818,559	$423,968,462	4,802
Information	$273,699,031	$169,174,667	$72,824,898	671
Wholesale Trade	$479,782,079	$324,284,214	$186,985,195	2,092
Retail Trade	$1,930,703,583	$1,430,475,172	$829,027,287	25,771
Finance, Insurance, and Real Estate	$1,669,699,142	$504,211,896	$194,207,756	1,926
Business Services	$701,939,593	$410,650,648	$334,985,727	4,073
Health Services	$446,591,306	$312,353,578	$264,097,830	4,360
Other Services	$802,134,417	$409,608,688	$332,953,065	8,098
TOTAL	$35,336,891,620	$7,712,388,401	$4,479,997,890	69,891
Source: US Multi-Regional Impact Assessment System, The Perryman Group				

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The Anticipated Cumulative Impact (Over 25 Years) of Ongoing Operations of Proposed Golden Pass Products Facilities on Business Activity in the United States				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$314,363,493	$96,324,312	$61,932,464	969
Mining	$7,494,235,122	$1,649,850,296	$770,919,267	3,838
Construction	$975,346,117	$532,109,534	$438,491,386	6,190
Nondurable Manufacturing	$25,520,901,992	$2,685,550,388	$1,310,046,440	14,254
Durable Manufacturing	$1,042,965,224	$394,555,441	$260,338,691	3,617
Transportation and Utilities	$3,507,682,371	$1,075,933,143	$608,779,888	6,499
Information	$437,301,370	$270,168,017	$116,295,144	1,071
Wholesale Trade	$914,962,118	$618,455,077	$356,606,716	3,983
Retail Trade	$2,380,164,671	$1,766,194,659	$1,023,967,331	31,767
Finance, Insurance, and Real Estate	$3,169,817,518	$993,258,102	$353,623,289	3,543
Business Services	$882,556,020	$517,324,260	$422,004,092	5,136
Health Services	$526,804,858	$369,129,331	$312,102,236	5,154
Other Services	$1,057,285,121	$536,556,630	$433,307,825	10,412
TOTAL	$48,224,385,995	$11,505,409,190	$6,468,414,769	96,433
Source: US Multi-Regional Impact Assessment System, The Perryman Group				

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Total Construction and the First 25 Years of Operations of the Facilities

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The Anticipated Cumulative Impact of Construction and the First 25 Years of Operations of Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in Jefferson County				
Sector	**Total Expenditures**	**Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$168,577,424	$53,448,476	$33,582,130	524
Mining	$615,752,609	$135,323,555	$62,519,818	305
Construction	$3,094,652,154	$1,519,201,147	$1,251,916,361	17,659
Nondurable Manufacturing	$22,181,759,882	$1,970,980,282	$943,218,845	7,986
Durable Manufacturing	$1,257,367,936	$479,453,219	$314,923,812	5,031
Transportation and Utilities	$2,656,536,129	$904,391,304	$528,507,251	6,004
Information	$306,424,340	$189,175,657	$81,672,500	762
Wholesale Trade	$633,071,988	$428,035,997	$246,809,361	2,759
Retail Trade	$2,945,473,993	$2,194,422,163	$1,273,608,705	39,304
Finance, Insurance, and Real Estate	$2,026,572,653	$563,708,759	$233,432,548	2,334
Business Services	$1,525,187,635	$931,206,299	$759,625,750	9,239
Health Services	$686,593,497	$480,023,638	$405,864,491	6,704
Other Services	$1,171,617,751	$601,447,143	$487,673,507	11,854
TOTAL	$39,269,587,990	$10,450,817,637	$6,623,355,079	110,466

Source: US Multi-Regional Impact Assessment System, The Perryman Group

*Assumes all initial costs conform to current projections. Direct purchases are allocated across the state and local areas based on capacity and historical patterns.

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The Anticipated Cumulative Impact of Construction and the First 25 Years of Operations of the Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the Primary Impact Area (including Jefferson County)				
Sector	**Total Expenditures**	**Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$168,718,029	$53,579,694	$33,630,848	525
Mining	$3,261,289,241	$718,753,318	$335,532,481	1,673
Construction	$3,104,984,687	$1,524,596,242	$1,256,362,207	17,718
Nondurable Manufacturing	$22,641,558,098	$2,154,387,036	$1,037,462,172	9,704
Durable Manufacturing	$1,511,743,327	$571,690,425	$377,943,396	6,035
Transportation and Utilities	$2,767,732,703	$954,798,406	$560,508,223	6,424
Information	$400,338,717	$247,229,050	$106,507,913	985
Wholesale Trade	$675,708,297	$456,869,881	$263,435,270	2,946
Retail Trade	$3,051,082,672	$2,273,647,930	$1,319,666,328	40,710
Finance, Insurance, and Real Estate	$2,380,548,586	$663,725,225	$263,208,796	2,638
Business Services	$1,525,187,635	$931,206,299	$759,625,750	9,239
Health Services	$709,455,449	$496,163,214	$419,510,578	6,927
Other Services	$1,252,648,206	$640,133,852	$519,486,206	12,583
TOTAL	$43,450,995,647	$11,686,780,571	$7,252,880,169	118,107

Source: US Multi-Regional Impact Assessment System, The Perryman Group

*Assumes all initial costs conform to current projections. Direct purchases are allocated across the state and local areas based on capacity and historical patterns.

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The Anticipated Cumulative Impact of Construction and the First 25 Years of Operations of the Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the United States				
Sector	**Total Expenditures**	**Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$926,899,707	$276,244,774	$179,023,873	2,820
Mining	$8,104,548,214	$1,799,726,340	$856,304,567	4,380
Construction	$10,406,191,571	$4,950,792,014	$4,079,760,953	57,537
Nondurable Manufacturing	$31,709,595,706	$4,338,059,101	$2,163,281,012	28,377
Durable Manufacturing	$7,072,088,261	$2,733,046,905	$1,782,269,900	27,913
Transportation and Utilities	$6,597,892,297	$2,315,197,668	$1,334,715,126	14,791
Information	$1,164,860,818	$718,332,346	$309,633,286	2,869
Wholesale Trade	$2,370,251,800	$1,603,260,736	$924,454,430	10,333
Retail Trade	$7,209,881,685	$5,401,651,211	$3,139,550,002	96,161
Finance, Insurance, and Real Estate	$7,815,842,646	$2,156,553,083	$830,417,303	8,509
Business Services	$3,876,408,169	$2,422,797,717	$1,976,382,173	24,048
Health Services	$1,629,311,542	$1,140,635,837	$964,418,132	15,928
Other Services	$3,168,425,550	$1,608,983,726	$1,297,090,739	31,121
TOTAL	$92,052,197,966	$31,465,281,458	$19,837,301,496	324,787

Source: US Multi-Regional Impact Assessment System, The Perryman Group

*Assumes all initial costs conform to current projections. Direct purchases are allocated across the state and local areas based on capacity and historical patterns.

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Enhanced Production Activity

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The Potential Cumulative Impact (Over 25 Years) of the Incremental Natural Gas Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the United States				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$4,196,172,686	$1,184,496,549	$779,826,121	12,726
Mining	$21,981,687,661	$4,933,693,073	$2,406,688,577	12,599
Construction	$76,647,111,688	$31,497,752,350	$25,954,662,595	375,183
Nondurable Manufacturing	$46,498,278,867	$13,203,142,032	$7,380,477,819	115,813
Durable Manufacturing	$25,316,270,018	$9,333,749,451	$6,224,806,835	92,554
Transportation and Utilities	$23,665,579,225	$10,501,976,193	$6,291,949,429	77,225
Information	$5,299,518,406	$3,217,536,028	$1,452,338,994	14,679
Wholesale Trade	$10,833,934,320	$6,900,494,913	$3,948,949,801	44,625
Retail Trade	$31,179,723,460	$23,284,440,385	$13,645,189,100	415,077
Finance, Insurance, and Real Estate	$35,344,099,954	$11,421,953,672	$5,447,794,646	70,860
Business Services	$12,346,505,687	$7,260,591,210	$5,915,554,176	74,457
Health Services	$7,671,613,333	$5,279,372,297	$4,321,874,209	80,541
Other Services	$17,809,018,074	$8,337,454,457	$6,218,809,212	148,144
TOTAL	$318,789,513,380	$136,356,652,611	$89,988,921,515	1,534,484
Source: US Multi-Regional Impact Assessment System, The Perryman Group				

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The Potential Annual Impact in a "Typical" Year of Natural Gas Production Stimulus Required to Maintain the Level of Incremental Natural Gas Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the United States				
Sector	**Total Expenditures**	**Real Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*
Agriculture	$149,298,433	$42,132,301	$27,755,718	453
Mining	$890,097,245	$199,195,180	$96,486,548	500
Construction	$2,676,631,736	$1,099,950,047	$906,367,052	13,102
Nondurable Manufacturing	$1,661,723,108	$477,833,589	$270,365,508	4,211
Durable Manufacturing	$891,985,026	$329,169,388	$219,463,047	3,261
Transportation and Utilities	$829,559,401	$368,612,680	$220,545,516	2,704
Information	$189,603,029	$114,912,217	$52,258,159	533
Wholesale Trade	$384,760,326	$242,407,070	$138,526,700	1,561
Retail Trade	$1,097,979,002	$818,858,042	$480,505,776	14,545
Finance, Insurance, and Real Estate	$1,249,390,164	$410,399,518	$197,122,005	2,619
Business Services	$433,235,569	$254,833,952	$207,578,049	2,617
Health Services	$273,099,932	$187,410,627	$152,545,588	2,890
Other Services	$648,781,921	$301,320,466	$221,848,984	5,255
TOTAL	$11,376,144,890	$4,847,035,077	$3,191,368,650	54,253
Source: US Multi-Regional Impact Assessment System, The Perryman Group				

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Potential Benefits from Liquid By-Products

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The Potential Impact of Constructing New Chemical Manufacturing Facilities to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in Jefferson County					
Sector	**Total Expenditures**	**Gross Product**	**Personal Income**	**Employment**	
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*	*(Average Annual)**
Agriculture	$10,758,348	$3,159,547	$2,025,629	46	8
Mining	$1,520,566	$353,752	$169,637	1	0
Construction	$529,204,143	$226,940,537	$187,013,137	3,712	619
Nondurable Manufacturing	$90,453,482	$19,724,532	$10,147,008	196	33
Durable Manufacturing	$87,206,059	$32,342,833	$21,455,300	469	78
Transportation and Utilities	$108,366,599	$49,396,466	$30,084,320	511	85
Information	$18,796,275	$11,559,264	$4,995,221	68	11
Wholesale Trade	$36,440,892	$24,661,732	$14,220,174	238	40
Retail Trade	$201,869,791	$152,055,551	$88,501,716	3,779	630
Finance, Insurance, and Real Estate	$125,292,002	$31,563,472	$15,072,737	239	40
Business Services	$96,416,740	$57,246,832	$46,698,745	831	138
Health Services	$47,482,420	$33,190,044	$28,062,490	657	109
Other Services	$80,876,395	$40,788,584	$33,060,650	1,159	193
TOTAL	$1,434,683,711	$682,983,146	$481,506,765	11,903	1,984

Source: US Multi-Regional Impact Assessment System, The Perryman Group

NOTE: Assumes expansion would occur in the Jefferson County area due to the proximity of its refining and petrochemical complex to the Golden Pass facility.

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The Potential Impact of Constructing New Chemical Manufacturing Facilities to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the Primary Impact Area (including Jefferson County)					
Sector	**Total Expenditures**	**Gross Product**	**Personal Income**	**Employment**	
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*	*(Average Annual)**
Agriculture	$10,772,938	$3,170,542	$2,029,707	46	8
Mining	$9,938,657	$2,443,244	$1,378,519	13	2
Construction	$530,136,077	$227,439,422	$187,424,249	3,720	620
Nondurable Manufacturing	$116,681,056	$29,880,109	$15,383,878	334	56
Durable Manufacturing	$112,287,893	$41,117,005	$27,550,047	600	100
Transportation and Utilities	$115,560,236	$53,320,782	$32,584,027	556	93
Information	$23,885,835	$14,689,899	$6,335,107	85	14
Wholesale Trade	$39,469,662	$26,711,195	$15,401,913	258	43
Retail Trade	$209,169,492	$157,530,226	$91,684,015	3,915	653
Finance, Insurance, and Real Estate	$144,736,165	$37,035,571	$17,220,345	273	46
Business Services	$96,416,740	$57,246,832	$46,698,745	831	138
Health Services	$49,156,363	$34,364,149	$29,055,206	680	113
Other Services	$86,591,701	$43,453,542	$35,263,617	1,235	206
TOTAL	$1,544,802,816	$728,402,518	$508,009,373	12,545	2,091

Source: US Multi-Regional Impact Assessment System, The Perryman Group

NOTE: Assumes expansion would occur in the Jefferson County area due to the proximity of its refining and petrochemical complex to the Golden Pass facility.

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The Potential Impact of Constructing New Chemical Manufacturing Facilities to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the United States

Sector	Total Expenditures	Gross Product	Personal Income	Employment	
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Person-Years)*	*(Average Annual)**
Agriculture	$113,336,084	$32,355,923	$21,168,637	480	80
Mining	$110,640,266	$27,410,114	$16,145,029	149	25
Construction	$2,259,612,067	$969,587,730	$799,000,677	15,858	2,643
Nondurable Manufacturing	$1,203,605,059	$317,176,631	$163,146,730	4,077	679
Durable Manufacturing	$776,572,667	$289,575,213	$190,964,172	3,988	665
Transportation and Utilities	$661,260,670	$285,275,597	$171,036,800	2,833	472
Information	$137,232,264	$84,347,889	$36,365,012	487	81
Wholesale Trade	$293,170,524	$198,402,565	$114,400,687	1,914	319
Retail Trade	$901,690,261	$679,216,737	$395,333,377	16,877	2,813
Finance, Insurance, and Real Estate	$954,758,156	$269,797,477	$120,496,068	1,920	320
Business Services	$350,632,435	$209,549,773	$170,938,916	3,042	507
Health Services	$206,171,973	$144,237,076	$121,953,783	2,854	476
Other Services	$405,430,408	$201,964,581	$163,196,342	5,693	949
TOTAL	$8,374,112,834	$3,708,897,307	$2,484,146,229	60,170	10,028

Source: US Multi-Regional Impact Assessment System, The Perryman Group

NOTE: Assumes expansion would occur in the Jefferson County area due to the proximity of its refining and petrochemical complex to the Golden Pass plant.

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The Potential Annual Impact of New Chemical Manufacturing Operations(at Maturity) to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in Jefferson County				
Sector	**Total Expenditures**	**Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Permanent Jobs)*
Agriculture	$45,816,531	$14,846,038	$9,269,682	144
Mining	$251,916,876	$55,320,619	$25,545,038	124
Construction	$368,349,445	$201,491,368	$166,041,436	2,344
Nondurable Manufacturing	$9,020,453,333	$777,409,097	$370,377,573	3,033
Durable Manufacturing	$183,041,304	$67,544,453	$44,875,899	671
Transportation and Utilities	$895,663,002	$287,415,757	$166,890,670	1,873
Information	$85,794,037	$53,010,730	$22,867,280	212
Wholesale Trade	$187,649,522	$126,829,990	$73,131,299	818
Retail Trade	$773,620,373	$572,914,042	$331,990,939	10,328
Finance, Insurance, and Real Estate	$585,584,153	$177,706,735	$71,696,402	710
Business Services	$291,296,574	$170,415,130	$139,015,088	1,690
Health Services	$179,557,372	$125,531,468	$106,138,043	1,753
Other Services	$311,377,180	$159,721,975	$129,745,292	3,171
TOTAL	$13,180,119,703	$2,790,157,402	$1,657,584,641	26,870

Source: US Multi-Regional Impact Assessment System, The Perryman Group

NOTE: Assumes expansion would occur in the Jefferson County area due to the proximity of its refining and petrochemical complex to the Golden Pass Products facilities. This analysis also assumes that the production will ramp up to its mature and sustainable level over the first five years of operations.

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The Potential Annual Impact of New Chemical Manufacturing Operations(at Maturity) to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the Primary Impact Area (including Jefferson County)				
Sector	**Total Expenditures**	**Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Permanent Jobs)*
Agriculture	$45,841,214	$14,871,859	$9,279,281	144
Mining	$1,330,458,431	$292,679,535	$136,173,332	675
Construction	$370,578,261	$202,633,559	$166,982,650	2,356
Nondurable Manufacturing	$9,153,265,877	$830,754,495	$397,736,102	3,530
Durable Manufacturing	$219,026,697	$80,316,331	$53,800,000	807
Transportation and Utilities	$928,905,978	$301,621,048	$175,941,864	1,993
Information	$113,581,839	$70,205,473	$30,221,466	278
Wholesale Trade	$199,103,850	$134,574,088	$77,596,630	868
Retail Trade	$801,219,000	$593,630,165	$344,036,453	10,695
Finance, Insurance, and Real Estate	$692,905,264	$209,241,934	$80,593,906	799
Business Services	$291,296,574	$170,415,130	$139,015,088	1,690
Health Services	$185,330,075	$129,623,016	$109,597,455	1,809
Other Services	$332,876,233	$169,982,729	$138,171,558	3,361
TOTAL	$14,664,389,291	$3,200,549,360	$1,859,145,784	29,004

Source: US Multi-Regional Impact Assessment System, The Perryman Group

NOTE: Assumes expansion would occur in the Jefferson County area due to the proximity of its refining and petrochemical complex to the Golden Pass Products facilities. This analysis also assumes that the production will ramp up to its mature and sustainable level over the first five years of operations.

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The Potential Annual Impact of New Chemical Manufacturing Operations(at Maturity) to Accommodate the Incremental Ethane Production Associated with the Implementation of the Proposed Golden Pass Products Facilities on Business Activity in the United States				
Sector	**Total Expenditures**	**Gross Product**	**Personal Income**	**Employment**
	(2012 Dollars)	*(2012 Dollars)*	*(2012 Dollars)*	*(Permanent Jobs)*
Agriculture	$130,457,107	$39,973,443	$25,701,235	402
Mining	$3,110,018,347	$684,668,229	$319,922,317	1,593
Construction	$404,757,026	$220,819,121	$181,968,704	2,569
Nondurable Manufacturing	$10,590,870,467	$1,114,471,436	$543,653,675	5,915
Durable Manufacturing	$432,818,150	$163,735,810	$108,037,457	1,501
Transportation and Utilities	$1,455,646,420	$446,499,444	$252,636,405	2,697
Information	$181,474,862	$112,116,510	$48,261,100	444
Wholesale Trade	$379,698,385	$256,651,493	$147,987,541	1,653
Retail Trade	$987,739,999	$732,949,755	$424,934,251	13,183
Finance, Insurance, and Real Estate	$1,315,436,529	$412,190,286	$146,749,455	1,470
Business Services	$366,250,240	$214,683,408	$175,126,674	2,131
Health Services	$218,617,744	$153,184,278	$129,518,712	2,139
Other Services	$438,760,737	$222,664,613	$179,817,588	4,321
TOTAL	$20,012,546,015	$4,774,607,827	$2,684,315,115	40,018

Source: US Multi-Regional Impact Assessment System, The Perryman Group

NOTE: Assumes expansion would occur in the Jefferson County area due to the proximity of its refining and petrochemical complex to the Golden Pass Products facilities. This analysis also assumes that the production will ramp up to its mature and sustainable level over the first five years of operations.

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Forecast Tables for Jefferson County

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Historical and Projected Values for Key Economic Indicators for Jefferson County*

Date	Gross Area Product	Real Gross Area Product	Personal Income (by place of residence)	Real Personal Income (by place of residence)	Personal Income (by place of work)	Real Personal Income (by place of work)	Total Employment	Wage and Salary Employment
2001	$7,715.056	$8,943.674	$6,385.253	$6,993.141	$5,632.849	$6,169.107	143.6	125.3
2002	$8,229.225	$9,686.852	$6,489.732	$7,047.594	$5,775.788	$6,272.279	143.6	124.0
2003	$8,942.911	$10,007.721	$6,732.306	$7,132.093	$6,068.454	$6,428.819	145.9	125.1
2004	$9,986.420	$10,882.314	$6,860.605	$7,098.714	$6,182.576	$6,397.153	145.2	123.5
2005	$10,337.600	$10,337.600	$7,361.931	$7,361.931	$6,567.001	$6,567.001	146.8	123.7
2006	$11,740.587	$11,084.033	$7,884.954	$7,665.846	$7,234.511	$7,033.478	152.3	128.4
2007	$13,413.910	$12,005.783	$8,309.210	$7,941.413	$7,510.540	$7,178.095	156.0	131.1
2008	$12,562.306	$11,054.860	$8,988.801	$8,271.682	$8,054.452	$7,411.874	158.2	132.9
2009	$12,641.481	$11,564.997	$9,033.603	$8,326.960	$7,894.708	$7,277.153	153.5	127.8
2010	$13,331.724	$11,808.104	$9,499.382	$8,649.283	$8,269.498	$7,529.462	153.2	127.5
2011	$14,211.304	$12,318.322	$10,079.752	$8,898.972	$8,727.067	$7,704.745	156.4	130.1
2012	$15,211.295	$12,851.809	$10,720.468	$9,232.749	$9,252.280	$7,968.307	159.7	132.8
2013	$16,316.337	$13,420.348	$11,450.288	$9,626.349	$9,866.611	$8,294.939	163.3	135.7
2014	$17,483.871	$13,990.039	$12,259.525	$10,050.181	$10,547.312	$8,646.534	167.0	138.7
2015	$18,687.338	$14,545.637	$13,118.696	$10,487.353	$11,268.739	$9,008.460	170.5	141.5
2016	$19,941.025	$15,102.038	$14,030.315	$10,937.990	$12,032.854	$9,380.776	173.8	144.3
2017	$21,246.936	$15,657.566	$14,996.985	$11,402.206	$12,841.677	$9,763.525	177.0	146.8
2018	$22,613.936	$16,219.270	$16,021.393	$11,880.095	$13,697.289	$10,156.738	180.1	149.3
2019	$24,045.292	$16,788.093	$17,106.310	$12,371.735	$14,601.828	$10,560.428	183.1	151.7
2020	$25,549.570	$17,368.233	$18,254.594	$12,877.187	$15,557.494	$10,974.594	186.1	154.2
2021	$27,129.231	$17,958.840	$19,469.187	$13,396.491	$16,566.541	$11,399.219	189.1	156.5
2022	$28,786.493	$18,559.536	$20,753.110	$13,929.669	$17,631.278	$11,834.268	192.0	158.9
2023	$30,523.495	$19,169.896	$22,109.471	$14,476.722	$18,754.070	$12,279.690	195.0	161.3
2024	$32,342.439	$19,789.535	$23,541.455	$15,037.629	$19,937.332	$12,735.416	197.9	163.6
2025	$34,245.325	$20,417.960	$25,052.323	$15,612.346	$21,183.530	$13,201.355	200.7	165.9
2026	$36,234.221	$21,054.728	$26,645.415	$16,200.808	$22,495.177	$13,677.401	203.6	168.1
2027	$38,311.025	$21,699.321	$28,324.141	$16,802.923	$23,874.829	$14,163.427	206.4	170.3
2028	$40,477.745	$22,351.295	$30,091.981	$17,418.578	$25,325.084	$14,659.286	209.1	172.5
2029	$42,735.918	$23,009.987	$31,952.481	$18,047.633	$26,848.579	$15,164.810	211.8	174.7
2030	$45,087.285	$23,674.869	$33,909.248	$18,689.922	$28,447.985	$15,679.811	214.5	176.8
2031	$47,532.877	$24,345.106	$35,965.948	$19,345.253	$30,126.001	$16,204.080	217.1	178.8
2032	$50,073.562	$25,019.847	$38,126.299	$20,013.407	$31,885.354	$16,737.386	219.6	180.8
2033	$52,710.429	$25,698.399	$40,394.064	$20,694.137	$33,728.793	$17,279.476	222.1	182.8
2034	$55,444.399	$26,380.043	$42,773.051	$21,387.169	$35,659.080	$17,830.076	224.5	184.7
2035	$58,276.224	$27,064.037	$45,267.102	$22,092.200	$37,678.989	$18,388.891	226.9	186.5
2036	$61,206.416	$27,749.618	$47,880.087	$22,808.900	$39,791.302	$18,955.601	229.2	188.3
2037	$64,235.289	$28,436.003	$50,615.898	$23,536.907	$41,998.796	$19,529.867	231.4	190.0
2038	$67,362.944	$29,122.390	$53,478.440	$24,275.832	$44,304.243	$20,111.327	233.5	191.7
2039	$70,589.269	$29,807.963	$56,471.627	$25,025.258	$46,710.401	$20,699.595	235.6	193.3
2040	$73,913.927	$30,491.889	$59,599.368	$25,784.735	$49,220.005	$21,294.266	237.6	194.8

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Historical and Projected Values for Key Economic Indicators for Jefferson County*

Date	Regional Consumer Price Index	Gross Product Deflator	Population	Industrial Production Index	Labor Productivity	Retail Sales	Real Retail Sales
2001	91.3	86.3	249.2	70.9	$71,359	N/A	N/A
2002	92.1	85.0	248.3	89.8	$78,089	$3,666.872	$3,982.079
2003	94.4	89.4	247.3	94.7	$79,968	$3,800.758	$4,026.460
2004	96.6	91.8	246.8	118.1	$88,092	$4,077.169	$4,218.674
2005	100.0	100.0	246.1	100.0	$83,600	$3,309.955	$3,309.955
2006	102.9	105.9	240.4	112.6	$86,303	$3,637.863	$3,536.774
2007	104.6	111.7	241.5	135.0	$91,552	$4,649.694	$4,443.881
2008	108.7	113.6	242.2	101.9	$83,173	$4,623.823	$4,254.938
2009	108.5	109.3	243.2	116.9	$90,496	$3,473.418	$3,201.714
2010	109.8	112.9	245.1	119.8	$92,597	$3,436.872	$3,129.307
2011	113.3	115.4	246.8	125.7	$94,669	$3,331.175	$2,940.949
2012	116.1	118.4	248.6	131.8	$96,808	$3,540.503	$3,049.175
2013	118.9	121.6	250.3	138.0	$98,892	$3,770.856	$3,170.189
2014	122.0	125.0	251.8	144.0	$100,861	$4,025.959	$3,300.423
2015	125.1	128.5	253.3	149.8	$102,764	$4,295.942	$3,434.263
2016	128.3	132.0	254.8	155.5	$104,686	$4,581.494	$3,571.718
2017	131.5	135.7	256.2	161.3	$106,637	$4,883.323	$3,712.790
2018	134.9	139.4	257.7	167.1	$108,616	$5,202.158	$3,857.476
2019	138.3	143.2	259.1	173.1	$110,632	$5,538.744	$4,005.766
2020	141.8	147.1	260.6	179.2	$112,668	$5,893.845	$4,157.646
2021	145.3	151.1	262.0	185.4	$114,722	$6,268.243	$4,313.095
2022	149.0	155.1	263.4	191.8	$116,794	$6,662.735	$4,472.086
2023	152.7	159.2	264.7	198.3	$118,882	$7,078.137	$4,634.585
2024	156.6	163.4	266.1	204.9	$120,986	$7,515.279	$4,800.552
2025	160.5	167.7	267.4	211.7	$123,106	$7,975.003	$4,969.939
2026	164.5	172.1	268.8	218.5	$125,241	$8,458.168	$5,142.692
2027	168.6	176.6	270.1	225.5	$127,392	$8,965.643	$5,318.750
2028	172.8	181.1	271.4	232.6	$129,559	$9,498.308	$5,498.043
2029	177.0	185.7	272.7	239.8	$131,739	$10,057.052	$5,680.498
2030	181.4	190.4	273.9	247.2	$133,935	$10,642.774	$5,866.029
2031	185.9	195.2	275.2	254.6	$136,143	$11,256.378	$6,054.546
2032	190.5	200.1	276.4	262.1	$138,364	$11,898.772	$6,245.950
2033	195.2	205.1	277.6	269.8	$140,595	$12,570.869	$6,440.137
2034	200.0	210.2	278.8	277.5	$142,837	$13,273.582	$6,636.991
2035	204.9	215.3	279.9	285.3	$145,090	$14,007.824	$6,836.392
2036	209.9	220.6	281.1	293.2	$147,352	$14,774.502	$7,038.211
2037	215.0	225.9	282.2	301.2	$149,624	$15,574.521	$7,242.311
2038	220.3	231.3	283.3	309.3	$151,905	$16,408.778	$7,448.548
2039	225.7	236.8	284.4	317.4	$154,195	$17,278.158	$7,656.772
2040	231.1	242.4	285.4	325.6	$156,493	$18,183.535	$7,866.822

*** GROSS AREA PRODUCT - Millions of Dollars; REAL GROSS AREA PRODUCT - Millions of 2005 Dollars; PERSONAL INCOME (By place of residence and wo Dollars; REAL PERSONAL INCOME (By place of residence and work) - Millions of 2005 Dollars; EMPLOYMENT - Thousands of Persons; TEXAS CONSUMER I 2005=100; GROSS PRODUCT DEFLATOR - 2005=100; POPULATION - Thousands of Persons; INDUSTRIAL PRODUCTION INDEX - 2005=100; LABOR PRODUCT Dollars per Employee; RETAIL SALES - Millions of Dollars; REAL RETAIL SALES - Millions of 2005 Dollars**

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Historical and Projected Values for Key Economic Indicators for Jefferson County**

Date	Gross Area Product	Real Gross Area Product	Personal Income (by place of residence)	Real Personal Income (by place of residence)	Personal Income (by place of work)	Real Personal Income (by place of work)	Total Employment	Wage and Salary Employment
2002	6.7	8.3	1.6	0.8	2.5	1.7	0.0	-1.0
2003	8.7	3.3	3.7	1.2	5.1	2.5	1.6	0.9
2004	11.7	8.7	1.9	-0.5	1.9	-0.5	-0.5	-1.3
2005	3.5	-5.0	7.3	3.7	6.2	2.7	1.1	0.1
2006	13.6	7.2	7.1	4.1	10.2	7.1	3.7	3.9
2007	14.3	8.3	5.4	3.6	3.8	2.1	2.5	2.1
2008	-6.3	-7.9	8.2	4.2	7.2	3.3	1.4	1.4
2009	0.6	4.6	0.5	0.7	-2.0	-1.8	-3.0	-3.9
2010	5.5	2.1	5.2	3.9	4.7	3.5	-0.2	-0.2
2011	6.6	4.3	6.1	2.9	5.5	2.3	2.1	2.0
2012	7.0	4.3	6.4	3.8	6.0	3.4	2.1	2.0
2013	7.3	4.4	6.8	4.3	6.6	4.1	2.3	2.2
2014	7.2	4.2	7.1	4.4	6.9	4.2	2.3	2.2
2015	6.9	4.0	7.0	4.3	6.8	4.2	2.1	2.0
2016	6.7	3.8	6.9	4.3	6.8	4.1	2.0	1.9
2017	6.5	3.7	6.9	4.2	6.7	4.1	1.8	1.8
2018	6.4	3.6	6.8	4.2	6.7	4.0	1.7	1.7
2019	6.3	3.5	6.8	4.1	6.6	4.0	1.7	1.6
2020	6.3	3.5	6.7	4.1	6.5	3.9	1.6	1.6
2021	6.2	3.4	6.7	4.0	6.5	3.9	1.6	1.5
2022	6.1	3.3	6.6	4.0	6.4	3.8	1.6	1.5
2023	6.0	3.3	6.5	3.9	6.4	3.8	1.5	1.5
2024	6.0	3.2	6.5	3.9	6.3	3.7	1.5	1.4
2025	5.9	3.2	6.4	3.8	6.3	3.7	1.4	1.4
2026	5.8	3.1	6.4	3.8	6.2	3.6	1.4	1.4
2027	5.7	3.1	6.3	3.7	6.1	3.6	1.4	1.3
2028	5.7	3.0	6.2	3.7	6.1	3.5	1.3	1.3
2029	5.6	2.9	6.2	3.6	6.0	3.4	1.3	1.2
2030	5.5	2.9	6.1	3.6	6.0	3.4	1.3	1.2
2031	5.4	2.8	6.1	3.5	5.9	3.3	1.2	1.2
2032	5.3	2.8	6.0	3.5	5.8	3.3	1.2	1.1
2033	5.3	2.7	5.9	3.4	5.8	3.2	1.1	1.1
2034	5.2	2.7	5.9	3.3	5.7	3.2	1.1	1.0
2035	5.1	2.6	5.8	3.3	5.7	3.1	1.0	1.0
2036	5.0	2.5	5.8	3.2	5.6	3.1	1.0	1.0
2037	4.9	2.5	5.7	3.2	5.5	3.0	1.0	0.9
2038	4.9	2.4	5.7	3.1	5.5	3.0	0.9	0.9
2039	4.8	2.4	5.6	3.1	5.4	2.9	0.9	0.8
2040	4.7	2.3	5.5	3.0	5.4	2.9	0.8	0.8

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Historical and Projected Values for Key Economic Indicators for Jefferson County**

Date	Regional Consumer Price Index	Gross Product Deflator	Population	Industrial Production Index	Labor Productivity	Retail Sales	Real Retail Sales
2002	0.9	-1.5	-0.4	26.7	9.4	N/A	N/A
2003	2.5	5.2	-0.4	5.5	2.4	3.7	1.1
2004	2.4	2.7	-0.2	24.6	10.2	7.3	4.8
2005	3.5	9.0	-0.3	-15.3	-5.1	-18.8	-21.5
2006	2.9	5.9	-2.3	12.6	3.2	9.9	6.9
2007	1.7	5.5	0.5	20.0	6.1	27.8	25.6
2008	3.9	1.7	0.3	-24.6	-9.2	-0.6	-4.3
2009	-0.2	-3.8	0.4	14.8	8.8	-24.9	-24.8
2010	1.2	3.3	0.7	2.5	2.3	-1.1	-2.3
2011	3.1	2.2	0.7	4.8	2.2	-3.1	-6.0
2012	2.5	2.6	0.7	4.9	2.3	6.3	3.7
2013	2.4	2.7	0.7	4.7	2.2	6.5	4.0
2014	2.6	2.8	0.6	4.4	2.0	6.8	4.1
2015	2.5	2.8	0.6	4.0	1.9	6.7	4.1
2016	2.5	2.8	0.6	3.8	1.9	6.6	4.0
2017	2.5	2.8	0.6	3.7	1.9	6.6	3.9
2018	2.5	2.7	0.6	3.6	1.9	6.5	3.9
2019	2.5	2.7	0.6	3.6	1.9	6.5	3.8
2020	2.5	2.7	0.5	3.5	1.8	6.4	3.8
2021	2.5	2.7	0.5	3.5	1.8	6.4	3.7
2022	2.5	2.7	0.5	3.4	1.8	6.3	3.7
2023	2.5	2.7	0.5	3.4	1.8	6.2	3.6
2024	2.5	2.6	0.5	3.3	1.8	6.2	3.6
2025	2.5	2.6	0.5	3.3	1.8	6.1	3.5
2026	2.5	2.6	0.5	3.2	1.7	6.1	3.5
2027	2.5	2.6	0.5	3.2	1.7	6.0	3.4
2028	2.5	2.6	0.5	3.1	1.7	5.9	3.4
2029	2.5	2.6	0.5	3.1	1.7	5.9	3.3
2030	2.5	2.5	0.5	3.1	1.7	5.8	3.3
2031	2.5	2.5	0.5	3.0	1.6	5.8	3.2
2032	2.5	2.5	0.4	3.0	1.6	5.7	3.2
2033	2.5	2.5	0.4	2.9	1.6	5.6	3.1
2034	2.5	2.5	0.4	2.9	1.6	5.6	3.1
2035	2.5	2.5	0.4	2.8	1.6	5.5	3.0
2036	2.4	2.4	0.4	2.8	1.6	5.5	3.0
2037	2.4	2.4	0.4	2.7	1.5	5.4	2.9
2038	2.4	2.4	0.4	2.7	1.5	5.4	2.8
2039	2.4	2.4	0.4	2.6	1.5	5.3	2.8
2040	2.4	2.4	0.4	2.6	1.5	5.2	2.7

**Percent Change

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Historical and Projected Values for Key Measures of Per Capita Economic Performance for Jefferson County

Date	Per Capita Gross Area Product*	Per Capita Real Gross Area Product*	Per Capita Personal Income (by place of residence)*	Per Capita Real Personal Income (by place of residence)*	Per Capita Retail Sales*	Per Capita Real Retail Sales*
2001	$30.961	$35.891	$25.624	$28.063	N/A	N/A
2002	$33.146	$39.017	$26.139	$28.386	$14.769	$16.039
2003	$36.169	$40.476	$27.229	$28.846	$15.372	$16.285
2004	$40.458	$44.088	$27.794	$28.759	$16.518	$17.091
2005	$42.012	$42.012	$29.919	$29.919	$13.452	$13.452
2006	$48.839	$46.108	$32.800	$31.889	$15.133	$14.713
2007	$55.547	$49.716	$34.408	$32.885	$19.254	$18.402
2008	$51.867	$45.643	$37.113	$34.152	$19.091	$17.568
2009	$51.972	$47.546	$37.139	$34.234	$14.280	$13.163
2010	$54.403	$48.186	$38.764	$35.295	$14.025	$12.770
2011	$57.577	$49.908	$40.838	$36.054	$13.496	$11.915
2012	$61.179	$51.689	$43.117	$37.134	$14.240	$12.264
2013	$65.199	$53.626	$45.754	$38.466	$15.068	$12.668
2014	$69.440	$55.563	$48.690	$39.916	$15.990	$13.108
2015	$73.781	$57.429	$51.795	$41.406	$16.961	$13.559
2016	$78.273	$59.279	$55.072	$42.934	$17.983	$14.020
2017	$82.921	$61.107	$58.529	$44.500	$19.058	$14.490
2018	$87.758	$62.942	$62.174	$46.103	$20.188	$14.970
2019	$92.794	$64.788	$66.016	$47.744	$21.375	$15.459
2020	$98.060	$66.660	$70.062	$49.423	$22.621	$15.957
2021	$103.563	$68.556	$74.321	$51.140	$23.928	$16.465
2022	$109.307	$70.474	$78.803	$52.893	$25.300	$16.981
2023	$115.299	$72.412	$83.516	$54.684	$26.737	$17.507
2024	$121.545	$74.370	$88.470	$56.512	$28.243	$18.041
2025	$128.049	$76.346	$93.674	$58.377	$29.820	$18.583
2026	$134.815	$78.338	$99.139	$60.278	$31.470	$19.134
2027	$141.850	$80.344	$104.873	$62.214	$33.196	$19.693
2028	$149.158	$82.363	$110.887	$64.186	$35.001	$20.260
2029	$156.742	$84.393	$117.191	$66.193	$36.886	$20.834
2030	$164.606	$86.433	$123.797	$68.234	$38.855	$21.416
2031	$172.752	$88.479	$130.713	$70.308	$40.910	$22.004
2032	$181.181	$90.529	$137.952	$72.414	$43.053	$22.600
2033	$189.896	$92.582	$145.525	$74.553	$45.288	$23.201
2034	$198.897	$94.634	$153.441	$76.723	$47.617	$23.809
2035	$208.186	$96.684	$161.713	$78.922	$50.042	$24.422
2036	$217.764	$98.729	$170.351	$81.151	$52.566	$25.041
2037	$227.630	$100.768	$179.367	$83.408	$55.191	$25.665
2038	$237.783	$102.799	$188.773	$85.691	$57.921	$26.292
2039	$248.223	$104.818	$198.579	$88.000	$60.758	$26.925
2040	$258.946	$106.824	$208.797	$90.333	$63.703	$27.560

*** PER CAPITA GROSS AREA PRODUCT - Dollars per Person; PER CAPITA REAL GROSS AREA PRODUCT - 2005 Dollars per Person; PER CAPITA PERSONAL INCOME (By place of residence) - Dollars per Person; PER CAPITA REAL PERSONAL INCOME (By place of residence) - 2005 Dollars per Person; PER CAPITA RETAIL SALES - Dollars per Person; PER CAPITA REAL RETAIL SALES - 2005 Dollars per Person**

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Historical and Projected Values for Key Measures of Per Capita Economic Performance for Jefferson County

Date	Per Capita Gross Area Product**	Per Capita Real Gross Area Product**	Per Capita Personal Income (by place of residence)**	Per Capita Real Personal Income (by place of residence)**	Per Capita Retail Sales**	Per Capita Real Retail Sales**
2002	7.1	8.7	2.0	1.2	N/A	N/A
2003	9.1	3.7	4.2	1.6	4.1	1.5
2004	11.9	8.9	2.1	(0.3)	7.5	5.0
2005	3.8	(4.7)	7.6	4.0	(18.6)	(21.3)
2006	16.3	9.7	9.6	6.6	12.5	9.4
2007	13.7	7.8	4.9	3.1	27.2	25.1
2008	(6.6)	(8.2)	7.9	3.9	(0.8)	(4.5)
2009	0.2	4.2	0.1	0.2	(25.2)	(25.1)
2010	4.7	1.3	4.4	3.1	(1.8)	(3.0)
2011	5.8	3.6	5.3	2.1	(3.8)	(6.7)
2012	6.3	3.6	5.6	3.0	5.5	2.9
2013	6.6	3.7	6.1	3.6	5.8	3.3
2014	6.5	3.6	6.4	3.8	6.1	3.5
2015	6.3	3.4	6.4	3.7	6.1	3.4
2016	6.1	3.2	6.3	3.7	6.0	3.4
2017	5.9	3.1	6.3	3.6	6.0	3.4
2018	5.8	3.0	6.2	3.6	5.9	3.3
2019	5.7	2.9	6.2	3.6	5.9	3.3
2020	5.7	2.9	6.1	3.5	5.8	3.2
2021	5.6	2.8	6.1	3.5	5.8	3.2
2022	5.5	2.8	6.0	3.4	5.7	3.1
2023	5.5	2.8	6.0	3.4	5.7	3.1
2024	5.4	2.7	5.9	3.3	5.6	3.1
2025	5.4	2.7	5.9	3.3	5.6	3.0
2026	5.3	2.6	5.8	3.3	5.5	3.0
2027	5.2	2.6	5.8	3.2	5.5	2.9
2028	5.2	2.5	5.7	3.2	5.4	2.9
2029	5.1	2.5	5.7	3.1	5.4	2.8
2030	5.0	2.4	5.6	3.1	5.3	2.8
2031	4.9	2.4	5.6	3.0	5.3	2.7
2032	4.9	2.3	5.5	3.0	5.2	2.7
2033	4.8	2.3	5.5	3.0	5.2	2.7
2034	4.7	2.2	5.4	2.9	5.1	2.6
2035	4.7	2.2	5.4	2.9	5.1	2.6
2036	4.6	2.1	5.3	2.8	5.0	2.5
2037	4.5	2.1	5.3	2.8	5.0	2.5
2038	4.5	2.0	5.2	2.7	4.9	2.4
2039	4.4	2.0	5.2	2.7	4.9	2.4
2040	4.3	1.9	5.1	2.7	4.8	2.4

**Percent Change

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for Jefferson County*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	$26.150	$22.872	$597.000	$1,763.173	$332.770	$1,430.403	$962.453	$543.080
2002	$21.363	$20.834	$618.247	$2,049.415	$303.416	$1,745.999	$1,020.392	$633.681
2003	$25.521	$38.064	$662.794	$2,339.568	$310.748	$2,028.820	$1,032.594	$767.846
2004	$32.721	$29.570	$601.738	$3,105.664	$361.006	$2,744.658	$1,092.994	$877.413
2005	$32.670	$106.642	$716.214	$2,870.388	$407.266	$2,463.122	$1,139.951	$972.206
2006	$37.555	$118.535	$882.079	$4,035.889	$544.123	$3,491.766	$1,271.423	$692.398
2007	$30.097	$130.544	$979.708	$5,399.964	$738.306	$4,661.658	$1,341.332	$708.413
2008	$33.512	$130.295	$1,294.881	$3,966.283	$775.681	$3,190.602	$1,358.367	$730.397
2009	$42.915	$115.055	$1,206.901	$4,056.783	$647.156	$3,409.627	$1,384.682	$725.691
2010	$42.665	$171.686	$1,151.345	$4,381.941	$660.061	$3,721.880	$1,407.876	$733.764
2011	$42.369	$207.725	$1,242.604	$4,697.550	$709.840	$3,987.709	$1,485.614	$764.023
2012	$43.991	$226.042	$1,328.924	$5,067.672	$757.172	$4,310.500	$1,573.280	$799.931
2013	$45.808	$243.986	$1,421.982	$5,449.551	$805.173	$4,644.378	$1,676.791	$850.326
2014	$47.860	$263.930	$1,518.461	$5,837.667	$852.082	$4,985.585	$1,793.326	$904.831
2015	$49.984	$285.405	$1,618.288	$6,227.338	$898.869	$5,328.469	$1,914.192	$960.111
2016	$52.182	$306.386	$1,718.854	$6,635.132	$945.773	$5,689.359	$2,039.973	$1,016.045
2017	$54.456	$327.449	$1,821.402	$7,064.786	$993.276	$6,071.510	$2,163.475	$1,072.014
2018	$56.805	$349.513	$1,926.497	$7,515.870	$1,039.932	$6,475.938	$2,290.361	$1,129.166
2019	$59.233	$372.588	$2,032.231	$7,991.528	$1,087.837	$6,903.691	$2,420.515	$1,188.676
2020	$61.740	$396.681	$2,142.699	$8,493.214	$1,137.365	$7,355.849	$2,555.971	$1,250.597
2021	$64.328	$421.794	$2,258.227	$9,022.063	$1,188.538	$7,833.525	$2,696.798	$1,314.979
2022	$66.997	$447.925	$2,378.935	$9,579.237	$1,241.376	$8,337.861	$2,843.054	$1,381.872
2023	$69.750	$475.069	$2,504.910	$10,165.928	$1,295.898	$8,870.030	$2,994.789	$1,451.322
2024	$72.587	$503.218	$2,636.361	$10,783.357	$1,352.122	$9,431.235	$3,152.039	$1,523.375
2025	$75.510	$532.356	$2,773.357	$11,432.772	$1,410.062	$10,022.710	$3,314.830	$1,598.071
2026	$78.519	$562.465	$2,916.116	$12,115.447	$1,469.732	$10,645.715	$3,483.174	$1,675.452
2027	$81.617	$593.523	$3,064.766	$12,832.682	$1,531.143	$11,301.539	$3,657.072	$1,755.552
2028	$84.802	$625.499	$3,219.646	$13,585.799	$1,594.303	$11,991.496	$3,836.509	$1,838.405
2029	$88.078	$658.362	$3,380.722	$14,376.145	$1,659.219	$12,716.926	$4,021.454	$1,924.040
2030	$91.443	$692.072	$3,548.286	$15,205.087	$1,725.894	$13,479.193	$4,211.865	$2,012.483
2031	$94.900	$726.586	$3,722.037	$16,074.011	$1,794.330	$14,279.681	$4,407.680	$2,103.756
2032	$98.449	$761.855	$3,901.652	$16,984.321	$1,864.526	$15,119.795	$4,608.824	$2,197.877
2033	$102.090	$797.823	$4,087.165	$17,937.436	$1,936.477	$16,000.959	$4,815.201	$2,294.859
2034	$105.824	$834.433	$4,278.598	$18,934.789	$2,010.177	$16,924.612	$5,026.702	$2,394.712
2035	$109.652	$871.618	$4,475.964	$19,977.823	$2,085.615	$17,892.208	$5,243.197	$2,497.438
2036	$113.573	$909.308	$4,679.263	$21,067.920	$2,162.778	$18,905.142	$5,464.540	$2,603.046
2037	$117.588	$947.427	$4,888.482	$22,206.455	$2,241.648	$19,964.807	$5,690.567	$2,711.538
2038	$121.698	$985.892	$5,103.597	$23,394.788	$2,322.205	$21,072.583	$5,921.093	$2,822.914
2039	$125.902	$1,024.617	$5,324.569	$24,634.262	$2,404.425	$22,229.837	$6,155.918	$2,937.170
2040	$130.201	$1,063.512	$5,551.347	$25,926.198	$2,488.279	$23,437.918	$6,394.821	$3,054.298

*Millions of Dollars

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for Jefferson County*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	$200.457	$459.511	$2,162.926	$977.434	$7,715.056
2002	$214.503	$480.296	$2,141.783	$1,028.711	$8,229.225
2003	$220.125	$518.574	$2,283.651	$1,054.174	$8,942.911
2004	$258.794	$494.788	$2,417.873	$1,074.865	$9,986.420
2005	$285.941	$492.266	$2,590.630	$1,130.692	$10,337.600
2006	$271.040	$552.004	$2,736.094	$1,143.570	$11,740.587
2007	$253.594	$641.253	$2,746.523	$1,182.482	$13,413.910
2008	$230.350	$662.363	$2,927.041	$1,228.817	$12,562.306
2009	$202.411	$751.221	$2,851.986	$1,303.836	$12,641.481
2010	$202.123	$767.354	$3,020.781	$1,452.189	$13,331.724
2011	$205.737	$799.275	$3,266.031	$1,500.376	$14,211.304
2012	$214.127	$844.297	$3,549.657	$1,563.375	$15,211.295
2013	$225.942	$898.428	$3,857.943	$1,645.580	$16,316.337
2014	$239.397	$953.279	$4,178.746	$1,746.375	$17,483.871
2015	$254.362	$1,009.108	$4,519.431	$1,849.119	$18,687.338
2016	$269.515	$1,067.428	$4,878.595	$1,956.913	$19,941.025
2017	$285.283	$1,128.297	$5,259.837	$2,069.939	$21,246.936
2018	$301.668	$1,191.767	$5,663.910	$2,188.380	$22,613.936
2019	$318.673	$1,257.889	$6,091.537	$2,312.422	$24,045.292
2020	$336.297	$1,326.711	$6,543.406	$2,442.252	$25,549.570
2021	$354.538	$1,398.277	$7,020.167	$2,578.060	$27,129.231
2022	$373.391	$1,472.628	$7,522.418	$2,720.036	$28,786.493
2023	$392.849	$1,549.800	$8,050.707	$2,868.370	$30,523.495
2024	$412.905	$1,629.824	$8,605.519	$3,023.255	$32,342.439
2025	$433.547	$1,712.727	$9,187.272	$3,184.882	$34,245.325
2026	$454.762	$1,798.532	$9,796.312	$3,353.441	$36,234.221
2027	$476.533	$1,887.255	$10,432.902	$3,529.123	$38,311.025
2028	$498.843	$1,978.906	$11,097.219	$3,712.118	$40,477.745
2029	$521.671	$2,073.490	$11,789.345	$3,902.611	$42,735.918
2030	$544.992	$2,171.005	$12,509.262	$4,100.790	$45,087.285
2031	$568.782	$2,271.443	$13,256.845	$4,306.836	$47,532.877
2032	$593.011	$2,374.789	$14,031.858	$4,520.928	$50,073.562
2033	$617.648	$2,481.020	$14,833.944	$4,743.241	$52,710.429
2034	$642.660	$2,590.107	$15,662.627	$4,973.947	$55,444.399
2035	$668.009	$2,702.010	$16,517.300	$5,213.212	$58,276.224
2036	$693.658	$2,816.686	$17,397.226	$5,461.196	$61,206.416
2037	$719.565	$2,934.080	$18,301.534	$5,718.054	$64,235.289
2038	$745.687	$3,054.130	$19,229.214	$5,983.932	$67,362.944
2039	$771.978	$3,176.765	$20,179.116	$6,258.971	$70,589.269
2040	$798.392	$3,301.906	$21,149.950	$6,543.303	$73,913.927

*Millions of Dollars

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for Jefferson County*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-18.3	-8.9	3.6	16.2	-8.8	22.1	6.0	16.7
2003	19.5	82.7	7.2	14.2	2.4	16.2	1.2	21.2
2004	28.2	-22.3	-9.2	32.7	16.2	35.3	5.8	14.3
2005	-0.2	260.6	19.0	-7.6	12.8	-10.3	4.3	10.8
2006	15.0	11.2	23.2	40.6	33.6	41.8	11.5	-28.8
2007	-19.9	10.1	11.1	33.8	35.7	33.5	5.5	2.3
2008	11.3	-0.2	32.2	-26.5	5.1	-31.6	1.3	3.1
2009	28.1	-11.7	-6.8	2.3	-16.6	6.9	1.9	-0.6
2010	-0.6	49.2	-4.6	8.0	2.0	9.2	1.7	1.1
2011	-0.7	21.0	7.9	7.2	7.5	7.1	5.5	4.1
2012	3.8	8.8	6.9	7.9	6.7	8.1	5.9	4.7
2013	4.1	7.9	7.0	7.5	6.3	7.7	6.6	6.3
2014	4.5	8.2	6.8	7.1	5.8	7.3	6.9	6.4
2015	4.4	8.1	6.6	6.7	5.5	6.9	6.7	6.1
2016	4.4	7.4	6.2	6.5	5.2	6.8	6.6	5.8
2017	4.4	6.9	6.0	6.5	5.0	6.7	6.1	5.5
2018	4.3	6.7	5.8	6.4	4.7	6.7	5.9	5.3
2019	4.3	6.6	5.5	6.3	4.6	6.6	5.7	5.3
2020	4.2	6.5	5.4	6.3	4.6	6.5	5.6	5.2
2021	4.2	6.3	5.4	6.2	4.5	6.5	5.5	5.1
2022	4.1	6.2	5.3	6.2	4.4	6.4	5.4	5.1
2023	4.1	6.1	5.3	6.1	4.4	6.4	5.3	5.0
2024	4.1	5.9	5.2	6.1	4.3	6.3	5.3	5.0
2025	4.0	5.8	5.2	6.0	4.3	6.3	5.2	4.9
2026	4.0	5.7	5.1	6.0	4.2	6.2	5.1	4.8
2027	3.9	5.5	5.1	5.9	4.2	6.2	5.0	4.8
2028	3.9	5.4	5.1	5.9	4.1	6.1	4.9	4.7
2029	3.9	5.3	5.0	5.8	4.1	6.0	4.8	4.7
2030	3.8	5.1	5.0	5.8	4.0	6.0	4.7	4.6
2031	3.8	5.0	4.9	5.7	4.0	5.9	4.6	4.5
2032	3.7	4.9	4.8	5.7	3.9	5.9	4.6	4.5
2033	3.7	4.7	4.8	5.6	3.9	5.8	4.5	4.4
2034	3.7	4.6	4.7	5.6	3.8	5.8	4.4	4.4
2035	3.6	4.5	4.6	5.5	3.8	5.7	4.3	4.3
2036	3.6	4.3	4.5	5.5	3.7	5.7	4.2	4.2
2037	3.5	4.2	4.5	5.4	3.6	5.6	4.1	4.2
2038	3.5	4.1	4.4	5.4	3.6	5.5	4.1	4.1
2039	3.5	3.9	4.3	5.3	3.5	5.5	4.0	4.0
2040	3.4	3.8	4.3	5.2	3.5	5.4	3.9	4.0

*Percent Change

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for Jefferson County*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	7.0	4.5	-1.0	5.2	6.7
2003	2.6	8.0	6.6	2.5	8.7
2004	17.6	-4.6	5.9	2.0	11.7
2005	10.5	-0.5	7.1	5.2	3.5
2006	-5.2	12.1	5.6	1.1	13.6
2007	-6.4	16.2	0.4	3.4	14.3
2008	-9.2	3.3	6.6	3.9	-6.3
2009	-12.1	13.4	-2.6	6.1	0.6
2010	-0.1	2.1	5.9	11.4	5.5
2011	1.8	4.2	8.1	3.3	6.6
2012	4.1	5.6	8.7	4.2	7.0
2013	5.5	6.4	8.7	5.3	7.3
2014	6.0	6.1	8.3	6.1	7.2
2015	6.3	5.9	8.2	5.9	6.9
2016	6.0	5.8	7.9	5.8	6.7
2017	5.9	5.7	7.8	5.8	6.5
2018	5.7	5.6	7.7	5.7	6.4
2019	5.6	5.5	7.6	5.7	6.3
2020	5.5	5.5	7.4	5.6	6.3
2021	5.4	5.4	7.3	5.6	6.2
2022	5.3	5.3	7.2	5.5	6.1
2023	5.2	5.2	7.0	5.5	6.0
2024	5.1	5.2	6.9	5.4	6.0
2025	5.0	5.1	6.8	5.3	5.9
2026	4.9	5.0	6.6	5.3	5.8
2027	4.8	4.9	6.5	5.2	5.7
2028	4.7	4.9	6.4	5.2	5.7
2029	4.6	4.8	6.2	5.1	5.6
2030	4.5	4.7	6.1	5.1	5.5
2031	4.4	4.6	6.0	5.0	5.4
2032	4.3	4.5	5.8	5.0	5.3
2033	4.2	4.5	5.7	4.9	5.3
2034	4.0	4.4	5.6	4.9	5.2
2035	3.9	4.3	5.5	4.8	5.1
2036	3.8	4.2	5.3	4.8	5.0
2037	3.7	4.2	5.2	4.7	4.9
2038	3.6	4.1	5.1	4.6	4.9
2039	3.5	4.0	4.9	4.6	4.8
2040	3.4	3.9	4.8	4.5	4.7

*Percent Change

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for Jefferson County*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	$26.438	$48.832	$779.173	$2,169.726	$357.081	$1,812.645	$1,039.384	$579.774
2002	$22.729	$42.757	$772.815	$2,823.775	$312.167	$2,511.608	$1,100.340	$678.799
2003	$25.921	$65.671	$795.708	$2,863.446	$326.591	$2,536.855	$1,100.235	$811.828
2004	$30.061	$44.670	$672.743	$3,715.941	$375.095	$3,340.846	$1,132.953	$901.596
2005	$32.670	$106.642	$716.214	$2,870.388	$407.266	$2,463.122	$1,139.951	$972.206
2006	$38.618	$102.554	$804.467	$3,704.471	$541.878	$3,162.593	$1,238.971	$638.042
2007	$26.273	$108.925	$838.175	$4,582.076	$723.709	$3,858.367	$1,306.848	$642.097
2008	$27.972	$83.060	$1,101.108	$3,285.638	$756.407	$2,529.231	$1,301.567	$654.473
2009	$42.898	$132.776	$1,004.728	$3,889.434	$581.101	$3,308.333	$1,373.587	$594.905
2010	$47.467	$155.666	$968.621	$3,981.926	$603.335	$3,378.591	$1,390.296	$595.326
2011	$47.474	$180.321	$1,030.176	$4,171.538	$652.620	$3,518.918	$1,451.552	$610.477
2012	$48.716	$189.423	$1,075.395	$4,386.701	$693.886	$3,692.814	$1,509.213	$628.588
2013	$49.102	$197.642	$1,120.515	$4,595.343	$732.140	$3,863.203	$1,575.269	$657.691
2014	$50.090	$206.034	$1,162.292	$4,794.438	$767.654	$4,026.784	$1,649.589	$688.224
2015	$51.080	$214.606	$1,200.992	$4,982.261	$803.006	$4,179.255	$1,722.281	$717.848
2016	$52.072	$221.284	$1,237.111	$5,171.683	$838.162	$4,333.521	$1,795.822	$747.443
2017	$53.064	$227.553	$1,271.675	$5,365.058	$873.616	$4,491.442	$1,862.417	$776.010
2018	$54.056	$234.154	$1,305.107	$5,560.349	$907.337	$4,653.012	$1,929.712	$804.445
2019	$55.047	$240.739	$1,336.114	$5,760.806	$942.593	$4,818.213	$1,996.400	$833.569
2020	$56.037	$247.298	$1,367.599	$5,966.001	$978.978	$4,987.023	$2,064.507	$863.293
2021	$57.025	$253.816	$1,399.559	$6,175.768	$1,016.356	$5,159.412	$2,133.592	$893.604
2022	$58.011	$260.283	$1,431.962	$6,390.079	$1,054.734	$5,335.345	$2,203.598	$924.492
2023	$58.992	$266.686	$1,464.755	$6,608.900	$1,094.119	$5,514.781	$2,274.467	$955.943
2024	$59.969	$273.011	$1,497.962	$6,832.188	$1,134.515	$5,697.673	$2,346.135	$987.943
2025	$60.941	$279.246	$1,531.525	$7,059.894	$1,175.926	$5,883.968	$2,418.536	$1,020.476
2026	$61.908	$285.379	$1,565.467	$7,291.960	$1,218.356	$6,073.605	$2,491.600	$1,053.524
2027	$62.867	$291.395	$1,599.767	$7,528.323	$1,261.806	$6,266.517	$2,565.252	$1,087.068
2028	$63.820	$297.283	$1,634.506	$7,768.909	$1,306.276	$6,462.633	$2,639.417	$1,121.089
2029	$64.764	$303.030	$1,669.575	$8,013.637	$1,351.767	$6,661.870	$2,714.014	$1,155.566
2030	$65.699	$308.622	$1,705.030	$8,262.419	$1,398.276	$6,864.143	$2,788.959	$1,190.474
2031	$66.624	$314.047	$1,740.644	$8,515.159	$1,445.800	$7,069.358	$2,864.168	$1,225.789
2032	$67.538	$319.294	$1,776.204	$8,771.750	$1,494.335	$7,277.415	$2,939.551	$1,261.487
2033	$68.442	$324.349	$1,811.675	$9,032.080	$1,543.874	$7,488.206	$3,015.016	$1,297.540
2034	$69.333	$329.201	$1,847.024	$9,296.027	$1,594.411	$7,701.616	$3,090.469	$1,333.919
2035	$70.211	$333.839	$1,882.216	$9,563.461	$1,645.935	$7,917.526	$3,165.813	$1,370.595
2036	$71.076	$338.252	$1,917.217	$9,834.243	$1,698.437	$8,135.806	$3,240.949	$1,407.536
2037	$71.926	$342.429	$1,951.990	$10,108.226	$1,751.905	$8,356.322	$3,315.777	$1,444.711
2038	$72.761	$346.359	$1,986.501	$10,385.257	$1,806.325	$8,578.932	$3,390.195	$1,482.086
2039	$73.579	$350.034	$2,020.713	$10,665.170	$1,861.682	$8,803.488	$3,464.097	$1,519.625
2040	$74.381	$353.443	$2,054.590	$10,947.795	$1,917.960	$9,029.834	$3,537.379	$1,557.294

*Millions of 2005 Dollars

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for Jefferson County*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	$190.275	$512.987	$2,432.918	$1,164.167	$8,943.674
2002	$203.212	$518.922	$2,344.253	$1,179.250	$9,686.852
2003	$210.200	$544.864	$2,441.107	$1,148.741	$10,007.721
2004	$253.731	$506.094	$2,499.760	$1,124.765	$10,882.314
2005	$285.941	$492.266	$2,590.630	$1,130.692	$10,337.600
2006	$275.134	$541.213	$2,645.328	$1,095.235	$11,084.033
2007	$261.522	$616.868	$2,541.125	$1,081.874	$12,005.783
2008	$240.490	$619.005	$2,652.891	$1,088.656	$11,054.860
2009	$210.462	$695.684	$2,499.251	$1,121.272	$11,564.997
2010	$213.584	$700.529	$2,598.650	$1,156.041	$11,808.104
2011	$219.572	$717.280	$2,735.179	$1,154.753	$12,318.322
2012	$227.688	$738.415	$2,881.450	$1,166.222	$12,851.809
2013	$238.495	$767.644	$3,031.587	$1,187.060	$13,420.348
2014	$250.993	$794.238	$3,177.430	$1,216.712	$13,990.039
2015	$264.864	$820.080	$3,327.325	$1,244.299	$14,545.637
2016	$278.443	$846.700	$3,478.541	$1,272.938	$15,102.038
2017	$292.606	$873.674	$3,633.696	$1,301.813	$15,657.566
2018	$307.251	$900.981	$3,792.308	$1,330.909	$16,219.270
2019	$322.376	$928.598	$3,954.230	$1,360.212	$16,788.093
2020	$337.983	$956.503	$4,119.304	$1,389.709	$17,368.233
2021	$354.069	$984.671	$4,287.352	$1,419.383	$17,958.840
2022	$370.632	$1,013.076	$4,458.183	$1,449.220	$18,559.536
2023	$387.667	$1,041.691	$4,631.591	$1,479.203	$19,169.896
2024	$405.169	$1,070.489	$4,807.352	$1,509.316	$19,789.535
2025	$423.131	$1,099.441	$4,985.228	$1,539.541	$20,417.960
2026	$441.545	$1,128.516	$5,164.969	$1,569.861	$21,054.728
2027	$460.402	$1,157.683	$5,346.306	$1,600.258	$21,699.321
2028	$479.690	$1,186.910	$5,528.958	$1,630.714	$22,351.295
2029	$499.396	$1,216.164	$5,712.633	$1,661.210	$23,009.987
2030	$519.506	$1,245.411	$5,897.023	$1,691.726	$23,674.869
2031	$540.006	$1,274.616	$6,081.808	$1,722.244	$24,345.106
2032	$560.877	$1,303.744	$6,266.660	$1,752.743	$25,019.847
2033	$582.100	$1,332.759	$6,451.236	$1,783.203	$25,698.399
2034	$603.656	$1,361.623	$6,635.188	$1,813.603	$26,380.043
2035	$625.522	$1,390.299	$6,818.157	$1,843.924	$27,064.037
2036	$647.675	$1,418.750	$6,999.778	$1,874.143	$27,749.618
2037	$670.090	$1,446.938	$7,179.677	$1,904.239	$28,436.003
2038	$692.740	$1,474.823	$7,357.479	$1,934.190	$29,122.390
2039	$715.598	$1,502.368	$7,532.804	$1,963.976	$29,807.963
2040	$738.634	$1,529.532	$7,705.267	$1,993.573	$30,491.889

*Millions of 2005 Dollars

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for Jefferson County*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-14.0	-12.4	-0.8	30.1	-12.6	38.6	5.9	17.1
2003	14.0	53.6	3.0	1.4	4.6	1.0	0.0	19.6
2004	16.0	-32.0	-15.5	29.8	14.9	31.7	3.0	11.1
2005	8.7	138.7	6.5	-22.8	8.6	-26.3	0.6	7.8
2006	18.2	-3.8	12.3	29.1	33.1	28.4	8.7	-34.4
2007	-32.0	6.2	4.2	23.7	33.6	22.0	5.5	0.6
2008	6.5	-23.7	31.4	-28.3	4.5	-34.4	-0.4	1.9
2009	53.4	59.9	-8.8	18.4	-23.2	30.8	5.5	-9.1
2010	10.6	17.2	-3.6	2.4	3.8	2.1	1.2	0.1
2011	0.0	15.8	6.4	4.8	8.2	4.2	4.4	2.5
2012	2.6	5.0	4.4	5.2	6.3	4.9	4.0	3.0
2013	0.8	4.3	4.2	4.8	5.5	4.6	4.4	4.6
2014	2.0	4.2	3.7	4.3	4.9	4.2	4.7	4.6
2015	2.0	4.2	3.3	3.9	4.6	3.8	4.4	4.3
2016	1.9	3.1	3.0	3.8	4.4	3.7	4.3	4.1
2017	1.9	2.8	2.8	3.7	4.2	3.6	3.7	3.8
2018	1.9	2.9	2.6	3.6	3.9	3.6	3.6	3.7
2019	1.8	2.8	2.4	3.6	3.9	3.6	3.5	3.6
2020	1.8	2.7	2.4	3.6	3.9	3.5	3.4	3.6
2021	1.8	2.6	2.3	3.5	3.8	3.5	3.3	3.5
2022	1.7	2.5	2.3	3.5	3.8	3.4	3.3	3.5
2023	1.7	2.5	2.3	3.4	3.7	3.4	3.2	3.4
2024	1.7	2.4	2.3	3.4	3.7	3.3	3.2	3.3
2025	1.6	2.3	2.2	3.3	3.7	3.3	3.1	3.3
2026	1.6	2.2	2.2	3.3	3.6	3.2	3.0	3.2
2027	1.6	2.1	2.2	3.2	3.6	3.2	3.0	3.2
2028	1.5	2.0	2.2	3.2	3.5	3.1	2.9	3.1
2029	1.5	1.9	2.1	3.2	3.5	3.1	2.8	3.1
2030	1.4	1.8	2.1	3.1	3.4	3.0	2.8	3.0
2031	1.4	1.8	2.1	3.1	3.4	3.0	2.7	3.0
2032	1.4	1.7	2.0	3.0	3.4	2.9	2.6	2.9
2033	1.3	1.6	2.0	3.0	3.3	2.9	2.6	2.9
2034	1.3	1.5	2.0	2.9	3.3	2.8	2.5	2.8
2035	1.3	1.4	1.9	2.9	3.2	2.8	2.4	2.7
2036	1.2	1.3	1.9	2.8	3.2	2.8	2.4	2.7
2037	1.2	1.2	1.8	2.8	3.1	2.7	2.3	2.6
2038	1.2	1.1	1.8	2.7	3.1	2.7	2.2	2.6
2039	1.1	1.1	1.7	2.7	3.1	2.6	2.2	2.5
2040	1.1	1.0	1.7	2.6	3.0	2.6	2.1	2.5

*Percent Change

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for Jefferson County*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	6.8	1.2	-3.6	1.3	8.3
2003	3.4	5.0	4.1	-2.6	3.3
2004	20.7	-7.1	2.4	-2.1	8.7
2005	12.7	-2.7	3.6	0.5	-5.0
2006	-3.8	9.9	2.1	-3.1	7.2
2007	-4.9	14.0	-3.9	-1.2	8.3
2008	-8.0	0.3	4.4	0.6	-7.9
2009	-12.5	12.4	-5.8	3.0	4.6
2010	1.5	0.7	4.0	3.1	2.1
2011	2.8	2.4	5.3	-0.1	4.3
2012	3.7	2.9	5.3	1.0	4.3
2013	4.7	4.0	5.2	1.8	4.4
2014	5.2	3.5	4.8	2.5	4.2
2015	5.5	3.3	4.7	2.3	4.0
2016	5.1	3.2	4.5	2.3	3.8
2017	5.1	3.2	4.5	2.3	3.7
2018	5.0	3.1	4.4	2.2	3.6
2019	4.9	3.1	4.3	2.2	3.5
2020	4.8	3.0	4.2	2.2	3.5
2021	4.8	2.9	4.1	2.1	3.4
2022	4.7	2.9	4.0	2.1	3.3
2023	4.6	2.8	3.9	2.1	3.3
2024	4.5	2.8	3.8	2.0	3.2
2025	4.4	2.7	3.7	2.0	3.2
2026	4.4	2.6	3.6	2.0	3.1
2027	4.3	2.6	3.5	1.9	3.1
2028	4.2	2.5	3.4	1.9	3.0
2029	4.1	2.5	3.3	1.9	2.9
2030	4.0	2.4	3.2	1.8	2.9
2031	3.9	2.3	3.1	1.8	2.8
2032	3.9	2.3	3.0	1.8	2.8
2033	3.8	2.2	2.9	1.7	2.7
2034	3.7	2.2	2.9	1.7	2.7
2035	3.6	2.1	2.8	1.7	2.6
2036	3.5	2.0	2.7	1.6	2.5
2037	3.5	2.0	2.6	1.6	2.5
2038	3.4	1.9	2.5	1.6	2.4
2039	3.3	1.9	2.4	1.5	2.4
2040	3.2	1.8	2.3	1.5	2.3

*Percent Change

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for Jefferson County*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	0.3	0.3	13.2	15.2	5.3	9.9	19.2	4.6
2002	0.3	0.3	12.2	14.0	4.7	9.3	19.1	4.6
2003	0.2	0.4	12.1	13.8	4.8	9.0	19.2	5.6
2004	0.2	0.2	10.5	13.7	5.0	8.8	18.8	5.9
2005	0.2	0.6	11.3	13.7	5.3	8.4	18.6	5.9
2006	0.2	0.7	12.4	15.1	6.7	8.4	19.5	5.8
2007	0.2	0.6	13.8	16.7	8.0	8.6	19.9	5.5
2008	0.2	0.7	16.4	16.4	7.9	8.5	19.8	5.2
2009	0.2	0.6	15.1	14.7	6.1	8.6	19.8	4.5
2010	0.2	0.7	14.4	14.4	5.8	8.5	19.7	4.4
2011	0.2	0.8	15.2	14.5	6.0	8.6	20.1	4.4
2012	0.2	0.8	15.7	14.7	6.1	8.6	20.4	4.4
2013	0.2	0.8	16.1	14.9	6.2	8.7	20.8	4.5
2014	0.2	0.8	16.5	15.1	6.3	8.8	21.3	4.6
2015	0.2	0.8	16.9	15.2	6.3	8.8	21.8	4.7
2016	0.2	0.8	17.2	15.3	6.4	8.9	22.3	4.8
2017	0.2	0.8	17.4	15.4	6.5	8.9	22.7	4.8
2018	0.2	0.8	17.7	15.5	6.5	9.0	23.0	4.9
2019	0.2	0.8	17.9	15.6	6.6	9.0	23.4	4.9
2020	0.2	0.8	18.1	15.7	6.6	9.1	23.7	5.0
2021	0.2	0.8	18.3	15.7	6.6	9.1	24.0	5.1
2022	0.2	0.8	18.5	15.8	6.7	9.1	24.3	5.1
2023	0.2	0.8	18.7	15.9	6.7	9.2	24.6	5.2
2024	0.2	0.8	18.9	16.0	6.8	9.2	25.0	5.2
2025	0.2	0.8	19.1	16.1	6.8	9.3	25.3	5.3
2026	0.2	0.8	19.3	16.1	6.8	9.3	25.6	5.3
2027	0.2	0.8	19.5	16.2	6.9	9.3	25.9	5.4
2028	0.2	0.8	19.7	16.3	6.9	9.4	26.2	5.4
2029	0.2	0.8	19.9	16.4	6.9	9.4	26.5	5.5
2030	0.2	0.8	20.1	16.4	7.0	9.4	26.7	5.5
2031	0.2	0.8	20.3	16.5	7.0	9.5	27.0	5.6
2032	0.2	0.8	20.5	16.6	7.0	9.5	27.3	5.6
2033	0.2	0.8	20.7	16.6	7.1	9.5	27.6	5.7
2034	0.2	0.8	20.9	16.7	7.1	9.6	27.8	5.7
2035	0.2	0.8	21.1	16.7	7.1	9.6	28.1	5.8
2036	0.2	0.8	21.3	16.8	7.2	9.6	28.3	5.8
2037	0.2	0.8	21.5	16.8	7.2	9.7	28.6	5.8
2038	0.2	0.8	21.7	16.9	7.2	9.7	28.8	5.9
2039	0.2	0.7	21.9	17.0	7.2	9.7	29.0	5.9
2040	0.2	0.7	22.1	17.0	7.3	9.7	29.2	6.0

*Thousands of Persons

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for Jefferson County*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	2.5	4.7	44.9	20.4	125.3
2002	2.4	4.7	45.8	20.5	124.0
2003	2.4	4.8	46.3	20.4	125.1
2004	2.5	4.6	47.0	20.1	123.5
2005	2.5	4.6	46.5	19.8	123.7
2006	2.3	4.6	48.4	19.5	128.4
2007	2.0	4.9	48.6	19.1	131.1
2008	1.8	4.7	49.0	18.7	132.9
2009	1.5	4.6	47.3	19.4	127.8
2010	1.5	4.6	48.0	19.7	127.5
2011	1.5	4.6	49.4	19.5	130.1
2012	1.5	4.6	51.1	19.4	132.8
2013	1.5	4.7	52.7	19.5	135.7
2014	1.5	4.8	54.2	19.7	138.7
2015	1.6	4.9	55.7	19.9	141.5
2016	1.6	4.9	57.2	20.1	144.3
2017	1.6	5.0	58.6	20.3	146.8
2018	1.7	5.0	60.1	20.5	149.3
2019	1.7	5.1	61.5	20.7	151.7
2020	1.7	5.1	63.0	20.9	154.2
2021	1.7	5.2	64.4	21.1	156.5
2022	1.8	5.3	65.9	21.2	158.9
2023	1.8	5.3	67.3	21.4	161.3
2024	1.8	5.4	68.7	21.6	163.6
2025	1.9	5.4	70.1	21.8	165.9
2026	1.9	5.5	71.5	22.0	168.1
2027	1.9	5.5	72.8	22.1	170.3
2028	1.9	5.6	74.1	22.3	172.5
2029	2.0	5.6	75.4	22.5	174.7
2030	2.0	5.6	76.7	22.7	176.8
2031	2.0	5.7	77.9	22.8	178.8
2032	2.0	5.7	79.1	23.0	180.8
2033	2.1	5.8	80.3	23.1	182.8
2034	2.1	5.8	81.4	23.3	184.7
2035	2.1	5.8	82.5	23.5	186.5
2036	2.1	5.9	83.6	23.6	188.3
2037	2.2	5.9	84.6	23.8	190.0
2038	2.2	5.9	85.5	23.9	191.7
2039	2.2	6.0	86.4	24.0	193.3
2040	2.2	6.0	87.3	24.2	194.8

*Thousands of Persons

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for Jefferson County*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-16.9	0.6	-7.7	-8.0	-10.3	-6.8	-0.3	1.0
2003	-11.1	10.9	-0.7	-1.3	1.2	-2.6	0.2	20.1
2004	-13.7	-37.2	-12.8	-0.6	3.7	-2.8	-1.9	5.3
2005	4.7	154.3	7.0	-0.2	6.8	-4.1	-1.0	0.2
2006	-17.8	15.3	10.0	10.0	26.2	-0.2	4.7	-2.1
2007	-5.4	-1.4	11.1	10.5	20.1	2.9	1.8	-5.2
2008	-1.1	3.1	19.0	-1.7	-1.7	-1.7	-0.3	-4.0
2009	6.9	-3.3	-7.7	-10.1	-22.9	1.7	0.2	-14.4
2010	-0.6	2.0	-4.6	-2.6	-4.5	-1.2	-0.7	-2.1
2011	-2.6	14.6	5.1	1.3	2.7	0.3	1.9	0.1
2012	0.3	2.9	3.2	1.1	1.5	0.8	1.8	0.7
2013	0.1	1.5	2.9	1.3	1.7	1.0	2.0	2.1
2014	0.0	1.4	2.5	1.1	1.4	0.8	2.4	2.0
2015	0.0	1.4	2.1	0.9	1.3	0.5	2.2	1.7
2016	0.0	0.7	1.8	0.8	1.1	0.5	2.1	1.6
2017	0.0	0.3	1.6	0.7	1.0	0.5	1.7	1.3
2018	-0.1	0.3	1.4	0.6	0.7	0.5	1.6	1.2
2019	-0.1	0.2	1.2	0.6	0.7	0.5	1.4	1.2
2020	-0.1	0.1	1.2	0.5	0.6	0.5	1.4	1.1
2021	-0.1	0.1	1.1	0.5	0.6	0.5	1.4	1.1
2022	-0.2	0.0	1.1	0.5	0.6	0.4	1.3	1.1
2023	-0.2	0.0	1.1	0.5	0.6	0.4	1.3	1.1
2024	-0.2	-0.1	1.1	0.5	0.6	0.4	1.3	1.0
2025	-0.2	-0.2	1.1	0.5	0.6	0.4	1.2	1.0
2026	-0.3	-0.2	1.1	0.5	0.5	0.4	1.2	1.0
2027	-0.3	-0.3	1.1	0.5	0.5	0.4	1.2	1.0
2028	-0.3	-0.4	1.0	0.4	0.5	0.4	1.1	0.9
2029	-0.3	-0.4	1.0	0.4	0.5	0.4	1.1	0.9
2030	-0.4	-0.5	1.0	0.4	0.5	0.4	1.1	0.9
2031	-0.4	-0.6	1.0	0.4	0.5	0.4	1.0	0.9
2032	-0.4	-0.6	1.0	0.4	0.4	0.4	1.0	0.9
2033	-0.4	-0.7	1.0	0.4	0.4	0.3	1.0	0.8
2034	-0.4	-0.8	0.9	0.4	0.4	0.3	0.9	0.8
2035	-0.5	-0.8	0.9	0.4	0.4	0.3	0.9	0.8
2036	-0.5	-0.9	0.9	0.3	0.4	0.3	0.9	0.8
2037	-0.5	-1.0	0.9	0.3	0.4	0.3	0.8	0.7
2038	-0.5	-1.0	0.9	0.3	0.3	0.3	0.8	0.7
2039	-0.6	-1.1	0.9	0.3	0.3	0.3	0.8	0.7
2040	-0.6	-1.1	0.8	0.3	0.3	0.3	0.8	0.7

*Percent Change

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for Jefferson County*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	-2.0	0.0	2.2	0.4	-1.0
2003	-0.4	1.9	0.9	-0.5	0.9
2004	1.3	-5.2	1.7	-1.6	-1.3
2005	0.1	0.3	-1.1	-1.5	0.1
2006	-6.3	0.3	4.1	-1.5	3.9
2007	-14.4	5.9	0.4	-2.2	2.1
2008	-10.1	-3.7	0.8	-1.7	1.4
2009	-15.3	-1.7	-3.6	3.5	-3.9
2010	-1.6	-1.1	1.6	1.8	-0.2
2011	-0.6	0.3	3.0	-1.3	2.0
2012	0.5	1.1	3.3	-0.5	2.0
2013	1.5	1.9	3.2	0.3	2.2
2014	1.8	1.4	2.9	1.2	2.2
2015	2.1	1.3	2.8	1.0	2.0
2016	1.9	1.2	2.6	1.0	1.9
2017	1.9	1.2	2.6	1.0	1.8
2018	1.8	1.2	2.5	1.0	1.7
2019	1.8	1.1	2.4	0.9	1.6
2020	1.7	1.1	2.4	0.9	1.6
2021	1.7	1.1	2.3	0.9	1.5
2022	1.6	1.0	2.2	0.9	1.5
2023	1.6	1.0	2.2	0.9	1.5
2024	1.6	1.0	2.1	0.9	1.4
2025	1.5	0.9	2.0	0.8	1.4
2026	1.5	0.9	2.0	0.8	1.4
2027	1.4	0.9	1.9	0.8	1.3
2028	1.4	0.8	1.8	0.8	1.3
2029	1.3	0.8	1.7	0.8	1.2
2030	1.3	0.8	1.7	0.8	1.2
2031	1.3	0.7	1.6	0.7	1.2
2032	1.2	0.7	1.5	0.7	1.1
2033	1.2	0.7	1.5	0.7	1.1
2034	1.1	0.6	1.4	0.7	1.0
2035	1.1	0.6	1.3	0.7	1.0
2036	1.0	0.6	1.3	0.6	1.0
2037	1.0	0.5	1.2	0.6	0.9
2038	0.9	0.5	1.1	0.6	0.9
2039	0.9	0.5	1.1	0.6	0.8
2040	0.9	0.4	1.0	0.6	0.8

*Percent Change

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Forecast Tables for the Beaumont Port-Arthur Metropolitan Statistical Area

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Historical and Projected Values for Key Economic Indicators for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Gross Area Product	Real Gross Area Product	Personal Income (by place of residence)	Real Personal Income (by place of residence)	Personal Income (by place of work)	Real Personal Income (by place of work)	Total Employment	Wage and Salary Employment
2001	$9,707.580	$11,205.977	$9,545.506	$10,454.256	$7,120.298	$7,798.164	191.8	163.1
2002	$10,395.097	$12,102.570	$9,767.815	$10,607.464	$7,294.420	$7,921.454	192.4	161.0
2003	$11,117.821	$12,368.091	$10,140.301	$10,742.466	$7,575.017	$8,024.847	193.8	160.8
2004	$12,371.536	$13,401.132	$10,319.190	$10,677.336	$7,729.015	$7,997.264	193.6	158.8
2005	$12,999.619	$12,999.619	$11,106.609	$11,106.609	$8,204.204	$8,204.204	196.9	159.7
2006	$14,678.454	$13,879.185	$11,944.625	$11,612.707	$9,058.734	$8,807.009	204.2	165.6
2007	$16,416.984	$14,778.006	$12,700.623	$12,138.446	$9,423.209	$9,006.102	209.5	169.0
2008	$15,642.137	$13,758.580	$13,775.089	$12,676.124	$10,064.432	$9,261.500	211.8	170.8
2009	$15,620.495	$14,178.125	$13,851.124	$12,767.635	$9,830.425	$9,061.451	206.3	164.7
2010	$16,503.842	$14,491.382	$14,568.227	$13,264.519	$10,295.930	$9,374.549	206.5	164.4
2011	$17,597.360	$15,121.254	$15,461.391	$13,650.185	$10,864.380	$9,591.685	210.6	167.7
2012	$18,825.407	$15,770.282	$16,447.497	$14,165.017	$11,516.900	$9,918.657	214.8	171.0
2013	$20,182.606	$16,461.785	$17,570.732	$14,771.855	$12,280.188	$10,324.053	219.6	174.7
2014	$21,618.427	$17,156.392	$18,816.308	$15,425.337	$13,125.897	$10,760.421	224.6	178.5
2015	$23,098.297	$17,834.232	$20,139.040	$16,099.560	$14,022.090	$11,209.545	229.3	182.1
2016	$24,638.259	$18,512.189	$21,542.837	$16,794.729	$14,971.188	$11,671.492	233.9	185.6
2017	$26,240.402	$19,188.076	$23,031.741	$17,511.030	$15,975.687	$12,146.313	238.3	188.8
2018	$27,916.128	$19,870.872	$24,609.933	$18,248.622	$17,038.157	$12,634.040	242.5	192.0
2019	$29,669.916	$20,562.332	$26,281.724	$19,007.637	$18,161.238	$13,134.686	246.7	195.0
2020	$31,512.074	$21,267.422	$28,051.562	$19,788.180	$19,347.642	$13,648.246	250.8	198.1
2021	$33,445.496	$21,985.038	$29,924.026	$20,590.329	$20,600.152	$14,174.694	254.9	201.1
2022	$35,472.787	$22,714.718	$31,903.826	$21,414.127	$21,921.617	$14,713.982	259.0	204.1
2023	$37,596.448	$23,455.941	$33,995.801	$22,259.590	$23,314.952	$15,266.041	263.1	207.1
2024	$39,819.044	$24,208.234	$36,204.918	$23,126.699	$24,783.135	$15,830.780	267.2	210.0
2025	$42,142.892	$24,970.993	$38,536.266	$24,015.399	$26,329.204	$16,408.085	271.2	212.9
2026	$44,570.379	$25,743.677	$40,995.054	$24,925.601	$27,956.256	$16,997.818	275.1	215.7
2027	$47,103.677	$26,525.648	$43,586.608	$25,857.181	$29,667.439	$17,599.817	279.0	218.5
2028	$49,745.075	$27,316.359	$46,316.363	$26,809.973	$31,465.953	$18,213.894	282.9	221.3
2029	$52,496.298	$28,115.004	$49,189.862	$27,783.777	$33,355.042	$18,839.838	286.7	224.0
2030	$55,359.294	$28,920.937	$52,212.746	$28,778.348	$35,337.994	$19,477.411	290.5	226.7
2031	$58,335.178	$29,733.152	$55,390.749	$29,793.405	$37,418.129	$20,126.347	294.1	229.3
2032	$61,424.862	$30,550.629	$58,729.692	$30,828.621	$39,598.800	$20,786.358	297.8	231.8
2033	$64,629.488	$31,372.523	$62,235.471	$31,883.629	$41,883.385	$21,457.125	301.3	234.3
2034	$67,949.991	$32,197.960	$65,914.052	$32,958.017	$44,275.279	$22,138.305	304.8	236.7
2035	$71,387.091	$33,026.041	$69,771.461	$34,051.332	$46,777.889	$22,829.526	308.1	239.0
2036	$74,941.208	$33,855.838	$73,813.773	$35,163.072	$49,394.628	$23,530.390	311.4	241.3
2037	$78,612.514	$34,686.402	$78,047.100	$36,292.695	$52,128.906	$24,240.471	314.6	243.5
2038	$82,400.919	$35,516.760	$82,477.580	$37,439.609	$54,984.122	$24,959.316	317.7	245.6
2039	$86,306.063	$36,345.922	$87,111.367	$38,603.180	$57,963.655	$25,686.446	320.7	247.6
2040	$90,327.308	$37,172.878	$91,954.615	$39,782.728	$61,070.857	$26,421.352	323.6	249.5

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Historical and Projected Values for Key Economic Indicators for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Texas Consumer Price Index	Gross Product Deflator	Population	Industrial Production Index	Labor Productivity	Retail Sales	Real Retail Sales
2001	91.3	86.6	381.7	70.4	$68,706	N/A	N/A
2002	92.1	85.9	381.0	87.5	$75,186	$4,787.694	$5,199.248
2003	94.4	89.9	380.0	90.3	$76,898	$4,971.932	$5,267.182
2004	96.6	92.3	380.3	111.9	$84,383	$5,353.557	$5,539.362
2005	100.0	100.0	380.3	100.0	$81,422	$4,616.237	$4,616.237
2006	102.9	105.8	373.1	110.2	$83,790	$5,049.404	$4,909.091
2007	104.6	111.1	375.7	126.2	$87,418	$6,240.615	$5,964.382
2008	108.7	113.7	377.5	99.0	$80,577	$6,239.601	$5,741.811
2009	108.5	110.2	378.5	108.7	$86,074	$4,871.554	$4,490.482
2010	109.8	113.9	381.4	111.7	$88,139	$4,817.651	$4,386.520
2011	113.3	116.4	384.2	117.4	$90,171	$5,109.709	$4,511.139
2012	116.1	119.4	387.1	123.1	$92,225	$5,431.892	$4,678.088
2013	118.9	122.6	389.7	128.9	$94,221	$5,786.466	$4,864.728
2014	122.0	126.0	392.2	134.5	$96,103	$6,179.169	$5,065.594
2015	125.1	129.5	394.6	139.9	$97,926	$6,594.874	$5,272.077
2016	128.3	133.1	397.0	145.2	$99,762	$7,034.651	$5,484.192
2017	131.5	136.8	399.4	150.5	$101,623	$7,499.604	$5,701.948
2018	134.9	140.5	401.7	155.9	$103,508	$7,990.864	$5,925.341
2019	138.3	144.3	404.0	161.5	$105,427	$8,509.594	$6,154.363
2020	141.8	148.2	406.3	167.1	$107,366	$9,056.984	$6,388.993
2021	145.3	152.1	408.6	172.9	$109,322	$9,634.252	$6,629.202
2022	149.0	156.2	410.9	178.8	$111,293	$10,242.645	$6,874.953
2023	152.7	160.3	413.1	184.8	$113,280	$10,883.433	$7,126.197
2024	156.6	164.5	415.3	191.0	$115,281	$11,557.911	$7,382.874
2025	160.5	168.8	417.5	197.2	$117,297	$12,267.399	$7,644.915
2026	164.5	173.1	419.7	203.5	$119,328	$13,013.235	$7,912.240
2027	168.6	177.6	421.8	210.0	$121,373	$13,796.781	$8,184.758
2028	172.8	182.1	423.9	216.5	$123,431	$14,619.412	$8,462.367
2029	177.0	186.7	426.0	223.2	$125,503	$15,482.523	$8,744.951
2030	181.4	191.4	428.0	229.9	$127,589	$16,387.520	$9,032.387
2031	185.9	196.2	430.1	236.8	$129,686	$17,335.820	$9,324.537
2032	190.5	201.1	432.1	243.7	$131,794	$18,328.851	$9,621.252
2033	195.2	206.0	434.0	250.8	$133,912	$19,368.043	$9,922.372
2034	200.0	211.0	436.0	257.9	$136,040	$20,454.833	$10,227.724
2035	204.9	216.2	437.9	265.1	$138,177	$21,590.654	$10,537.124
2036	209.9	221.4	439.8	272.3	$140,323	$22,776.937	$10,850.375
2037	215.0	226.6	441.6	279.7	$142,478	$24,015.107	$11,167.269
2038	220.3	232.0	443.4	287.1	$144,641	$25,306.577	$11,487.587
2039	225.7	237.5	445.2	294.5	$146,811	$26,652.747	$11,811.097
2040	231.1	243.0	447.0	302.1	$148,989	$28,054.995	$12,137.555

*** GROSS AREA PRODUCT - Millions of Dollars; REAL GROSS AREA PRODUCT - Millions of 2005 Dollars; PERSONAL INCOME (By place of residence and wo Dollars; REAL PERSONAL INCOME (By place of residence and work) - Millions of 2005 Dollars; EMPLOYMENT - Thousands of Persons; TEXAS CONSUMER I 2005=100; GROSS PRODUCT DEFLATOR - 2005=100; POPULATION - Thousands of Persons; INDUSTRIAL PRODUCTION INDEX - 2005=100; LABOR PRODUCT Dollars per Employee; RETAIL SALES - Millions of Dollars; REAL RETAIL SALES - Millions of 2005 Dollars**

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Historical and Projected Values for Key Economic Indicators for the Beaumont-Port Arthur Metropolitan Statistical Area**

Date	Gross Area Product	Real Gross Area Product	Personal Income (by place of residence)	Real Personal Income (by place of residence)	Personal Income (by place of work)	Real Personal Income (by place of work)	Total Employment	Wage and Salary Employment
2002	7.1	8.0	2.3	1.5	2.4	1.6	0.3	-1.3
2003	7.0	2.2	3.8	1.3	3.8	1.3	0.7	-0.1
2004	11.3	8.4	1.8	-0.6	2.0	-0.3	-0.1	-1.3
2005	5.1	-3.0	7.6	4.0	6.1	2.6	1.7	0.5
2006	12.9	6.8	7.5	4.6	10.4	7.3	3.7	3.7
2007	11.8	6.5	6.3	4.5	4.0	2.3	2.6	2.1
2008	-4.7	-6.9	8.5	4.4	6.8	2.8	1.1	1.0
2009	-0.1	3.0	0.6	0.7	-2.3	-2.2	-2.6	-3.5
2010	5.7	2.2	5.2	3.9	4.7	3.5	0.1	-0.2
2011	6.6	4.3	6.1	2.9	5.5	2.3	2.0	2.0
2012	7.0	4.3	6.4	3.8	6.0	3.4	2.0	2.0
2013	7.2	4.4	6.8	4.3	6.6	4.1	2.2	2.2
2014	7.1	4.2	7.1	4.4	6.9	4.2	2.3	2.2
2015	6.8	4.0	7.0	4.4	6.8	4.2	2.1	2.0
2016	6.7	3.8	7.0	4.3	6.8	4.1	2.0	1.9
2017	6.5	3.7	6.9	4.3	6.7	4.1	1.9	1.8
2018	6.4	3.6	6.9	4.2	6.7	4.0	1.8	1.7
2019	6.3	3.5	6.8	4.2	6.6	4.0	1.7	1.6
2020	6.2	3.4	6.7	4.1	6.5	3.9	1.7	1.6
2021	6.1	3.4	6.7	4.1	6.5	3.9	1.6	1.5
2022	6.1	3.3	6.6	4.0	6.4	3.8	1.6	1.5
2023	6.0	3.3	6.6	3.9	6.4	3.8	1.6	1.5
2024	5.9	3.2	6.5	3.9	6.3	3.7	1.5	1.4
2025	5.8	3.2	6.4	3.8	6.2	3.6	1.5	1.4
2026	5.8	3.1	6.4	3.8	6.2	3.6	1.5	1.3
2027	5.7	3.0	6.3	3.7	6.1	3.5	1.4	1.3
2028	5.6	3.0	6.3	3.7	6.1	3.5	1.4	1.3
2029	5.5	2.9	6.2	3.6	6.0	3.4	1.3	1.2
2030	5.5	2.9	6.1	3.6	5.9	3.4	1.3	1.2
2031	5.4	2.8	6.1	3.5	5.9	3.3	1.3	1.1
2032	5.3	2.7	6.0	3.5	5.8	3.3	1.2	1.1
2033	5.2	2.7	6.0	3.4	5.8	3.2	1.2	1.1
2034	5.1	2.6	5.9	3.4	5.7	3.2	1.1	1.0
2035	5.1	2.6	5.9	3.3	5.7	3.1	1.1	1.0
2036	5.0	2.5	5.8	3.3	5.6	3.1	1.1	0.9
2037	4.9	2.5	5.7	3.2	5.5	3.0	1.0	0.9
2038	4.8	2.4	5.7	3.2	5.5	3.0	1.0	0.9
2039	4.7	2.3	5.6	3.1	5.4	2.9	0.9	0.8
2040	4.7	2.3	5.6	3.1	5.4	2.9	0.9	0.8

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Historical and Projected Values for Key Economic Indicators for the Beaumont-Port Arthur Metropolitan Statistical Area**

Date	Texas Consumer Price Index	Gross Product Deflator	Population	Industrial Production Index	Labor Productivity	Retail Sales	Real Retail Sales
2002	0.9	-0.9	-0.2	24.3	9.4	N/A	N/A
2003	2.5	4.7	-0.3	3.2	2.3	3.8	1.3
2004	2.4	2.7	0.1	23.9	9.7	7.7	5.2
2005	3.5	8.3	0.0	-10.6	-3.5	-13.8	-16.7
2006	2.9	5.8	-1.9	10.2	2.9	9.4	6.3
2007	1.7	5.0	0.7	14.5	4.3	23.6	21.5
2008	3.9	2.3	0.5	-21.6	-7.8	0.0	-3.7
2009	-0.2	-3.1	0.3	9.9	6.8	-21.9	-21.8
2010	1.2	3.4	0.8	2.7	2.4	-1.1	-2.3
2011	3.1	2.2	0.7	5.1	2.3	6.1	2.8
2012	2.5	2.6	0.8	4.9	2.3	6.3	3.7
2013	2.4	2.7	0.7	4.7	2.2	6.5	4.0
2014	2.6	2.8	0.6	4.4	2.0	6.8	4.1
2015	2.5	2.8	0.6	4.0	1.9	6.7	4.1
2016	2.5	2.8	0.6	3.8	1.9	6.7	4.0
2017	2.5	2.8	0.6	3.7	1.9	6.6	4.0
2018	2.5	2.7	0.6	3.6	1.9	6.6	3.9
2019	2.5	2.7	0.6	3.6	1.9	6.5	3.9
2020	2.5	2.7	0.6	3.5	1.8	6.4	3.8
2021	2.5	2.7	0.6	3.5	1.8	6.4	3.8
2022	2.5	2.7	0.6	3.4	1.8	6.3	3.7
2023	2.5	2.6	0.5	3.4	1.8	6.3	3.7
2024	2.5	2.6	0.5	3.3	1.8	6.2	3.6
2025	2.5	2.6	0.5	3.3	1.7	6.1	3.5
2026	2.5	2.6	0.5	3.2	1.7	6.1	3.5
2027	2.5	2.6	0.5	3.2	1.7	6.0	3.4
2028	2.5	2.6	0.5	3.1	1.7	6.0	3.4
2029	2.5	2.5	0.5	3.1	1.7	5.9	3.3
2030	2.5	2.5	0.5	3.0	1.7	5.8	3.3
2031	2.5	2.5	0.5	3.0	1.6	5.8	3.2
2032	2.5	2.5	0.5	2.9	1.6	5.7	3.2
2033	2.5	2.5	0.5	2.9	1.6	5.7	3.1
2034	2.5	2.4	0.4	2.8	1.6	5.6	3.1
2035	2.5	2.4	0.4	2.8	1.6	5.6	3.0
2036	2.4	2.4	0.4	2.7	1.6	5.5	3.0
2037	2.4	2.4	0.4	2.7	1.5	5.4	2.9
2038	2.4	2.4	0.4	2.6	1.5	5.4	2.9
2039	2.4	2.3	0.4	2.6	1.5	5.3	2.8
2040	2.4	2.3	0.4	2.6	1.5	5.3	2.8

**Percent Change

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Historical and Projected Values for Key Measures of Per Capita Economic Performance for the Beaumont-Port Arthur Metropolitan Statistical Area

Date	Per Capita Gross Area Product*	Per Capita Real Gross Area Product*	Per Capita Personal Income (by place of residence)*	Per Capita Real Personal Income (by place of residence)*	Per Capita Retail Sales*	Per Capita Real Retail Sales*
2001	$25.432	$29.358	$25.008	$27.388	N/A	N/A
2002	$27.282	$31.764	$25.636	$27.840	$12.565	$13.646
2003	$29.255	$32.545	$26.683	$28.267	$13.083	$13.860
2004	$32.529	$35.236	$27.133	$28.074	$14.076	$14.565
2005	$34.185	$34.185	$29.207	$29.207	$12.139	$12.139
2006	$39.346	$37.204	$32.018	$31.128	$13.535	$13.159
2007	$43.694	$39.332	$33.803	$32.307	$16.610	$15.874
2008	$41.439	$36.449	$36.493	$33.581	$16.530	$15.211
2009	$41.272	$37.461	$36.597	$33.734	$12.871	$11.865
2010	$43.274	$37.997	$38.198	$34.780	$12.632	$11.502
2011	$45.801	$39.356	$40.242	$35.528	$13.299	$11.741
2012	$48.630	$40.738	$42.487	$36.591	$14.032	$12.085
2013	$51.788	$42.240	$45.086	$37.904	$14.848	$12.483
2014	$55.124	$43.746	$47.979	$39.332	$15.756	$12.916
2015	$58.537	$45.197	$51.038	$40.801	$16.713	$13.361
2016	$62.064	$46.632	$54.267	$42.306	$17.720	$13.815
2017	$65.707	$48.048	$57.673	$43.849	$18.779	$14.278
2018	$69.495	$49.467	$61.264	$45.428	$19.893	$14.751
2019	$73.435	$50.893	$65.049	$47.045	$21.062	$15.233
2020	$77.552	$52.340	$69.036	$48.699	$22.290	$15.724
2021	$81.851	$53.804	$73.233	$50.390	$23.578	$16.224
2022	$86.335	$55.284	$77.649	$52.118	$24.929	$16.732
2023	$91.008	$56.779	$82.292	$53.883	$26.345	$17.250
2024	$95.875	$58.288	$87.173	$55.684	$27.829	$17.776
2025	$100.939	$59.810	$92.301	$57.521	$29.383	$18.311
2026	$106.204	$61.343	$97.685	$59.394	$31.008	$18.854
2027	$111.672	$62.886	$103.334	$61.302	$32.709	$19.404
2028	$117.348	$64.439	$109.260	$63.244	$34.487	$19.963
2029	$123.233	$65.999	$115.471	$65.221	$36.345	$20.528
2030	$129.330	$67.565	$121.979	$67.232	$38.284	$21.101
2031	$135.640	$69.135	$128.793	$69.275	$40.309	$21.681
2032	$142.163	$70.707	$135.926	$71.351	$42.421	$22.268
2033	$148.901	$72.280	$143.386	$73.457	$44.622	$22.860
2034	$155.855	$73.852	$151.185	$75.595	$46.917	$23.459
2035	$163.024	$75.420	$159.335	$77.762	$49.306	$24.063
2036	$170.409	$76.985	$167.845	$79.957	$51.792	$24.673
2037	$178.008	$78.543	$176.728	$82.180	$54.379	$25.287
2038	$185.821	$80.093	$185.994	$84.430	$57.069	$25.906
2039	$193.847	$81.634	$195.655	$86.704	$59.863	$26.528
2040	$202.082	$83.164	$205.722	$89.003	$62.765	$27.154

*** PER CAPITA GROSS AREA PRODUCT - Dollars per Person; PER CAPITA REAL GROSS AREA PRODUCT - 2005 Dollars per Person; PER CAPITA PERSONAL INCOME (By place of residence) - Dollars per Person; PER CAPITA REAL PERSONAL INCOME (By place of residence) - 2005 Dollars per Person; PER CAPITA RETAIL SALES - Dollars per Person; PER CAPITA REAL RETAIL SALES - 2005 Dollars per Person**

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Historical and Projected Values for Key Measures of Per Capita Economic Performance for the Beaumont-Port Arthur Metropolitan Statistical Area

Date	Per Capita Gross Area Product**	Per Capita Real Gross Area Product**	Per Capita Personal Income (by place of residence)**	Per Capita Real Personal Income (by place of residence)**	Per Capita Retail Sales**	Per Capita Real Retail Sales**
2002	7.3	8.2	2.5	1.6	N/A	N/A
2003	7.2	2.5	4.1	1.5	4.1	1.6
2004	11.2	8.3	1.7	(0.7)	7.6	5.1
2005	5.1	(3.0)	7.6	4.0	(13.8)	(16.7)
2006	15.1	8.8	9.6	6.6	11.5	8.4
2007	11.1	5.7	5.6	3.8	22.7	20.6
2008	(5.2)	(7.3)	8.0	3.9	(0.5)	(4.2)
2009	(0.4)	2.8	0.3	0.5	(22.1)	(22.0)
2010	4.9	1.4	4.4	3.1	(1.9)	(3.1)
2011	5.8	3.6	5.3	2.1	5.3	2.1
2012	6.2	3.5	5.6	3.0	5.5	2.9
2013	6.5	3.7	6.1	3.6	5.8	3.3
2014	6.4	3.6	6.4	3.8	6.1	3.5
2015	6.2	3.3	6.4	3.7	6.1	3.4
2016	6.0	3.2	6.3	3.7	6.0	3.4
2017	5.9	3.0	6.3	3.6	6.0	3.4
2018	5.8	3.0	6.2	3.6	5.9	3.3
2019	5.7	2.9	6.2	3.6	5.9	3.3
2020	5.6	2.8	6.1	3.5	5.8	3.2
2021	5.5	2.8	6.1	3.5	5.8	3.2
2022	5.5	2.8	6.0	3.4	5.7	3.1
2023	5.4	2.7	6.0	3.4	5.7	3.1
2024	5.3	2.7	5.9	3.3	5.6	3.1
2025	5.3	2.6	5.9	3.3	5.6	3.0
2026	5.2	2.6	5.8	3.3	5.5	3.0
2027	5.1	2.5	5.8	3.2	5.5	2.9
2028	5.1	2.5	5.7	3.2	5.4	2.9
2029	5.0	2.4	5.7	3.1	5.4	2.8
2030	4.9	2.4	5.6	3.1	5.3	2.8
2031	4.9	2.3	5.6	3.0	5.3	2.7
2032	4.8	2.3	5.5	3.0	5.2	2.7
2033	4.7	2.2	5.5	3.0	5.2	2.7
2034	4.7	2.2	5.4	2.9	5.1	2.6
2035	4.6	2.1	5.4	2.9	5.1	2.6
2036	4.5	2.1	5.3	2.8	5.0	2.5
2037	4.5	2.0	5.3	2.8	5.0	2.5
2038	4.4	2.0	5.2	2.7	4.9	2.4
2039	4.3	1.9	5.2	2.7	4.9	2.4
2040	4.2	1.9	5.1	2.7	4.8	2.4

**Percent Change

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	$35.661	$50.069	$798.560	$2,383.567	$482.196	$1,901.371	$1,208.693	$638.766
2002	$30.044	$46.860	$811.377	$2,779.712	$469.122	$2,310.590	$1,297.694	$735.087
2003	$40.931	$72.459	$859.317	$3,029.169	$448.459	$2,580.710	$1,319.294	$870.319
2004	$54.983	$92.514	$786.899	$3,948.133	$537.866	$3,410.267	$1,391.723	$984.052
2005	$65.980	$182.683	$914.809	$3,829.601	$557.882	$3,271.719	$1,454.977	$1,125.286
2006	$78.580	$213.299	$1,125.809	$5,107.838	$774.806	$4,333.032	$1,620.496	$827.689
2007	$86.172	$242.408	$1,197.250	$6,387.736	$1,012.895	$5,374.841	$1,718.986	$867.489
2008	$84.762	$270.685	$1,532.143	$4,935.088	$1,106.199	$3,828.889	$1,734.466	$893.025
2009	$94.064	$222.288	$1,398.700	$4,955.226	$927.066	$4,028.160	$1,780.251	$880.657
2010	$93.576	$331.628	$1,333.592	$5,340.288	$945.956	$4,394.332	$1,810.467	$891.180
2011	$92.985	$401.152	$1,438.516	$5,723.002	$1,017.731	$4,705.271	$1,910.853	$928.688
2012	$96.606	$436.429	$1,537.611	$6,169.047	$1,086.055	$5,082.992	$2,024.055	$973.129
2013	$100.659	$470.970	$1,644.391	$6,628.709	$1,155.400	$5,473.310	$2,157.696	$1,035.280
2014	$105.236	$509.358	$1,755.007	$7,095.007	$1,223.234	$5,871.773	$2,308.158	$1,102.539
2015	$109.977	$550.680	$1,869.371	$7,562.664	$1,290.951	$6,271.714	$2,464.262	$1,170.854
2016	$114.887	$591.032	$1,984.464	$8,051.230	$1,358.894	$6,692.336	$2,626.762	$1,240.077
2017	$119.968	$631.524	$2,101.718	$8,565.184	$1,427.756	$7,137.428	$2,786.399	$1,309.454
2018	$125.224	$673.930	$2,221.782	$9,103.596	$1,495.459	$7,608.137	$2,950.463	$1,380.391
2019	$130.658	$718.266	$2,342.452	$9,670.662	$1,565.015	$8,105.647	$3,118.812	$1,454.327
2020	$136.275	$764.544	$2,468.445	$10,268.139	$1,636.966	$8,631.173	$3,294.066	$1,531.335
2021	$142.077	$812.766	$2,600.125	$10,897.314	$1,711.347	$9,185.967	$3,476.320	$1,611.485
2022	$148.067	$862.929	$2,737.623	$11,559.504	$1,788.191	$9,771.313	$3,665.655	$1,694.843
2023	$154.248	$915.021	$2,881.029	$12,256.054	$1,867.526	$10,388.528	$3,862.136	$1,781.475
2024	$160.625	$969.024	$3,030.574	$12,988.342	$1,949.382	$11,038.960	$4,065.819	$1,871.445
2025	$167.199	$1,024.909	$3,186.327	$13,757.773	$2,033.784	$11,723.989	$4,276.738	$1,964.811
2026	$173.973	$1,082.639	$3,348.527	$14,565.776	$2,120.752	$12,445.024	$4,494.917	$2,061.631
2027	$180.950	$1,142.167	$3,517.312	$15,413.809	$2,210.308	$13,203.501	$4,720.359	$2,161.957
2028	$188.132	$1,203.438	$3,693.058	$16,303.352	$2,302.465	$14,000.887	$4,953.050	$2,265.838
2029	$195.523	$1,266.387	$3,875.716	$17,235.909	$2,397.238	$14,838.671	$5,192.956	$2,373.320
2030	$203.123	$1,330.937	$4,065.608	$18,213.000	$2,494.634	$15,718.365	$5,440.026	$2,484.441
2031	$210.936	$1,397.004	$4,262.379	$19,236.166	$2,594.660	$16,641.506	$5,694.186	$2,599.239
2032	$218.963	$1,464.493	$4,465.647	$20,306.965	$2,697.316	$17,609.649	$5,955.341	$2,717.744
2033	$227.205	$1,533.298	$4,675.440	$21,426.964	$2,802.600	$18,624.364	$6,223.375	$2,839.982
2034	$235.665	$1,603.303	$4,891.773	$22,597.744	$2,910.505	$19,687.239	$6,498.150	$2,965.973
2035	$244.344	$1,674.384	$5,114.650	$23,820.892	$3,021.019	$20,799.873	$6,779.502	$3,095.730
2036	$253.242	$1,746.404	$5,344.059	$25,097.920	$3,134.126	$21,963.793	$7,067.247	$3,229.271
2037	$262.362	$1,819.213	$5,579.976	$26,430.324	$3,249.805	$23,180.519	$7,361.175	$3,366.609
2038	$271.704	$1,892.656	$5,822.361	$27,819.582	$3,368.028	$24,451.554	$7,661.055	$3,507.753
2039	$281.269	$1,966.566	$6,071.160	$29,267.145	$3,488.764	$25,778.380	$7,966.628	$3,652.707
2040	$291.057	$2,040.770	$6,326.304	$30,774.432	$3,611.976	$27,162.456	$8,277.612	$3,801.469

*Millions of Dollars

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	$232.028	$595.266	$2,503.611	$1,261.359	$9,707.580
2002	$245.913	$614.242	$2,509.835	$1,324.333	$10,395.097
2003	$251.303	$658.736	$2,656.110	$1,360.183	$11,117.821
2004	$286.512	$636.942	$2,799.080	$1,390.698	$12,371.536
2005	$315.279	$640.362	$3,004.885	$1,465.757	$12,999.619
2006	$300.280	$740.034	$3,180.276	$1,484.153	$14,678.454
2007	$283.405	$839.313	$3,254.370	$1,539.855	$16,416.984
2008	$260.865	$876.932	$3,449.198	$1,604.973	$15,642.137
2009	$231.861	$973.554	$3,385.666	$1,698.228	$15,620.495
2010	$231.601	$994.220	$3,586.615	$1,890.675	$16,503.842
2011	$235.814	$1,035.324	$3,878.419	$1,952.606	$17,597.360
2012	$245.506	$1,093.376	$4,215.893	$2,033.754	$18,825.407
2013	$259.131	$1,163.194	$4,582.768	$2,139.809	$20,182.606
2014	$274.646	$1,233.907	$4,964.630	$2,269.939	$21,618.427
2015	$291.904	$1,305.852	$5,370.237	$2,402.494	$23,098.297
2016	$309.388	$1,380.986	$5,797.935	$2,541.498	$24,638.259
2017	$327.588	$1,459.379	$6,252.010	$2,687.178	$26,240.402
2018	$346.509	$1,541.097	$6,733.371	$2,839.765	$27,916.128
2019	$366.153	$1,626.204	$7,242.891	$2,999.490	$29,669.916
2020	$386.520	$1,714.760	$7,781.401	$3,166.588	$31,512.074
2021	$407.609	$1,806.818	$8,349.687	$3,341.296	$33,445.496
2022	$429.415	$1,902.428	$8,948.476	$3,523.849	$35,472.787
2023	$451.931	$2,001.634	$9,578.433	$3,714.485	$37,596.448
2024	$475.148	$2,104.475	$10,240.150	$3,913.442	$39,819.044
2025	$499.054	$2,210.983	$10,934.141	$4,120.957	$42,142.892
2026	$523.633	$2,321.183	$11,660.832	$4,337.268	$44,570.379
2027	$548.869	$2,435.094	$12,420.552	$4,562.608	$47,103.677
2028	$574.741	$2,552.728	$13,213.527	$4,797.211	$49,745.075
2029	$601.224	$2,674.086	$14,039.871	$5,041.307	$52,496.298
2030	$628.294	$2,799.164	$14,899.577	$5,295.123	$55,359.294
2031	$655.920	$2,927.948	$15,792.515	$5,558.884	$58,335.178
2032	$684.069	$3,060.417	$16,718.415	$5,832.806	$61,424.862
2033	$712.706	$3,196.539	$17,676.872	$6,117.105	$64,629.488
2034	$741.793	$3,336.271	$18,667.331	$6,411.987	$67,949.991
2035	$771.288	$3,479.564	$19,689.084	$6,717.654	$71,387.091
2036	$801.146	$3,626.355	$20,741.268	$7,034.298	$74,941.208
2037	$831.321	$3,776.573	$21,822.858	$7,362.104	$78,612.514
2038	$861.762	$3,930.135	$22,932.663	$7,701.248	$82,400.919
2039	$892.418	$4,086.948	$24,069.326	$8,051.895	$86,306.063
2040	$923.234	$4,246.907	$25,231.321	$8,414.202	$90,327.308

*Millions of Dollars

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-15.8	-6.4	1.6	16.6	-2.7	21.5	7.4	15.1
2003	36.2	54.6	5.9	9.0	-4.4	11.7	1.7	18.4
2004	34.3	27.7	-8.4	30.3	19.9	32.1	5.5	13.1
2005	20.0	97.5	16.3	-3.0	3.7	-4.1	4.5	14.4
2006	19.1	16.8	23.1	33.4	38.9	32.4	11.4	-26.4
2007	9.7	13.6	6.3	25.1	30.7	24.0	6.1	4.8
2008	-1.6	11.7	28.0	-22.7	9.2	-28.8	0.9	2.9
2009	11.0	-17.9	-8.7	0.4	-16.2	5.2	2.6	-1.4
2010	-0.5	49.2	-4.7	7.8	2.0	9.1	1.7	1.2
2011	-0.6	21.0	7.9	7.2	7.6	7.1	5.5	4.2
2012	3.9	8.8	6.9	7.8	6.7	8.0	5.9	4.8
2013	4.2	7.9	6.9	7.5	6.4	7.7	6.6	6.4
2014	4.5	8.2	6.7	7.0	5.9	7.3	7.0	6.5
2015	4.5	8.1	6.5	6.6	5.5	6.8	6.8	6.2
2016	4.5	7.3	6.2	6.5	5.3	6.7	6.6	5.9
2017	4.4	6.9	5.9	6.4	5.1	6.7	6.1	5.6
2018	4.4	6.7	5.7	6.3	4.7	6.6	5.9	5.4
2019	4.3	6.6	5.4	6.2	4.7	6.5	5.7	5.4
2020	4.3	6.4	5.4	6.2	4.6	6.5	5.6	5.3
2021	4.3	6.3	5.3	6.1	4.5	6.4	5.5	5.2
2022	4.2	6.2	5.3	6.1	4.5	6.4	5.4	5.2
2023	4.2	6.0	5.2	6.0	4.4	6.3	5.4	5.1
2024	4.1	5.9	5.2	6.0	4.4	6.3	5.3	5.1
2025	4.1	5.8	5.1	5.9	4.3	6.2	5.2	5.0
2026	4.1	5.6	5.1	5.9	4.3	6.2	5.1	4.9
2027	4.0	5.5	5.0	5.8	4.2	6.1	5.0	4.9
2028	4.0	5.4	5.0	5.8	4.2	6.0	4.9	4.8
2029	3.9	5.2	4.9	5.7	4.1	6.0	4.8	4.7
2030	3.9	5.1	4.9	5.7	4.1	5.9	4.8	4.7
2031	3.8	5.0	4.8	5.6	4.0	5.9	4.7	4.6
2032	3.8	4.8	4.8	5.6	4.0	5.8	4.6	4.6
2033	3.8	4.7	4.7	5.5	3.9	5.8	4.5	4.5
2034	3.7	4.6	4.6	5.5	3.9	5.7	4.4	4.4
2035	3.7	4.4	4.6	5.4	3.8	5.7	4.3	4.4
2036	3.6	4.3	4.5	5.4	3.7	5.6	4.2	4.3
2037	3.6	4.2	4.4	5.3	3.7	5.5	4.2	4.3
2038	3.6	4.0	4.3	5.3	3.6	5.5	4.1	4.2
2039	3.5	3.9	4.3	5.2	3.6	5.4	4.0	4.1
2040	3.5	3.8	4.2	5.2	3.5	5.4	3.9	4.1

*Percent Change

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	6.0	3.2	0.2	5.0	7.1
2003	2.2	7.2	5.8	2.7	7.0
2004	14.0	-3.3	5.4	2.2	11.3
2005	10.0	0.5	7.4	5.4	5.1
2006	-4.8	15.6	5.8	1.3	12.9
2007	-5.6	13.4	2.3	3.8	11.8
2008	-8.0	4.5	6.0	4.2	-4.7
2009	-11.1	11.0	-1.8	5.8	-0.1
2010	-0.1	2.1	5.9	11.3	5.7
2011	1.8	4.1	8.1	3.3	6.6
2012	4.1	5.6	8.7	4.2	7.0
2013	5.5	6.4	8.7	5.2	7.2
2014	6.0	6.1	8.3	6.1	7.1
2015	6.3	5.8	8.2	5.8	6.8
2016	6.0	5.8	8.0	5.8	6.7
2017	5.9	5.7	7.8	5.7	6.5
2018	5.8	5.6	7.7	5.7	6.4
2019	5.7	5.5	7.6	5.6	6.3
2020	5.6	5.4	7.4	5.6	6.2
2021	5.5	5.4	7.3	5.5	6.1
2022	5.3	5.3	7.2	5.5	6.1
2023	5.2	5.2	7.0	5.4	6.0
2024	5.1	5.1	6.9	5.4	5.9
2025	5.0	5.1	6.8	5.3	5.8
2026	4.9	5.0	6.6	5.2	5.8
2027	4.8	4.9	6.5	5.2	5.7
2028	4.7	4.8	6.4	5.1	5.6
2029	4.6	4.8	6.3	5.1	5.5
2030	4.5	4.7	6.1	5.0	5.5
2031	4.4	4.6	6.0	5.0	5.4
2032	4.3	4.5	5.9	4.9	5.3
2033	4.2	4.4	5.7	4.9	5.2
2034	4.1	4.4	5.6	4.8	5.1
2035	4.0	4.3	5.5	4.8	5.1
2036	3.9	4.2	5.3	4.7	5.0
2037	3.8	4.1	5.2	4.7	4.9
2038	3.7	4.1	5.1	4.6	4.8
2039	3.6	4.0	5.0	4.6	4.7
2040	3.5	3.9	4.8	4.5	4.7

*Percent Change

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	$36.027	$109.553	$1,042.238	$2,827.739	$518.436	$2,309.303	$1,306.487	$679.764
2002	$31.853	$101.953	$1,014.230	$3,609.411	$503.562	$3,105.849	$1,399.995	$783.112
2003	$41.514	$125.068	$1,031.641	$3,595.505	$486.760	$3,108.745	$1,405.684	$916.739
2004	$50.267	$140.637	$879.753	$4,597.219	$563.338	$4,033.881	$1,442.260	$1,009.913
2005	$65.980	$182.683	$914.809	$3,829.601	$557.882	$3,271.719	$1,454.977	$1,125.286
2006	$81.325	$173.311	$1,026.753	$4,726.391	$756.129	$3,970.262	$1,579.207	$763.243
2007	$72.393	$185.610	$1,024.290	$5,510.994	$977.548	$4,533.446	$1,674.856	$786.297
2008	$69.551	$170.397	$1,302.865	$4,114.578	$1,046.848	$3,067.730	$1,661.952	$798.689
2009	$94.705	$227.066	$1,164.398	$4,637.580	$842.959	$3,794.621	$1,764.848	$722.196
2010	$104.858	$266.152	$1,121.944	$4,748.389	$875.586	$3,872.804	$1,786.707	$723.297
2011	$104.940	$308.240	$1,192.595	$4,978.671	$947.514	$4,031.156	$1,865.838	$742.310
2012	$107.754	$323.727	$1,244.269	$5,235.600	$1,007.857	$4,227.743	$1,940.379	$764.957
2013	$108.678	$337.699	$1,295.772	$5,483.946	$1,063.874	$4,420.072	$2,025.751	$801.026
2014	$110.935	$351.961	$1,343.354	$5,720.331	$1,115.955	$4,604.376	$2,121.787	$838.897
2015	$113.199	$366.524	$1,387.330	$5,943.600	$1,167.845	$4,775.755	$2,215.773	$875.721
2016	$115.470	$377.846	$1,428.279	$6,168.462	$1,219.495	$4,948.968	$2,310.891	$912.570
2017	$117.744	$388.464	$1,467.387	$6,397.758	$1,271.622	$5,126.137	$2,397.111	$948.221
2018	$120.022	$399.645	$1,505.148	$6,628.514	$1,321.269	$5,307.246	$2,484.269	$983.769
2019	$122.301	$410.795	$1,540.072	$6,865.461	$1,373.194	$5,492.268	$2,570.685	$1,020.217
2020	$124.580	$421.893	$1,575.509	$7,107.978	$1,426.809	$5,681.169	$2,658.965	$1,057.458
2021	$126.857	$432.919	$1,611.454	$7,355.826	$1,481.918	$5,873.908	$2,748.544	$1,095.481
2022	$129.130	$443.852	$1,647.868	$7,608.972	$1,538.533	$6,070.439	$2,839.349	$1,134.272
2023	$131.399	$454.670	$1,684.693	$7,867.371	$1,596.664	$6,270.708	$2,931.305	$1,173.817
2024	$133.660	$465.352	$1,721.952	$8,130.973	$1,656.320	$6,474.653	$3,024.332	$1,214.101
2025	$135.913	$475.875	$1,759.578	$8,399.717	$1,717.511	$6,682.206	$3,118.344	$1,255.104
2026	$138.156	$486.219	$1,797.600	$8,673.535	$1,780.241	$6,893.294	$3,213.251	$1,296.808
2027	$140.387	$496.361	$1,835.990	$8,952.348	$1,844.516	$7,107.832	$3,308.960	$1,339.191
2028	$142.604	$506.279	$1,874.841	$9,236.071	$1,910.339	$7,325.732	$3,405.371	$1,382.230
2029	$144.805	$515.952	$1,914.028	$9,524.606	$1,977.710	$7,546.896	$3,502.382	$1,425.900
2030	$146.989	$525.358	$1,953.615	$9,817.848	$2,046.628	$7,771.219	$3,599.885	$1,470.174
2031	$149.154	$534.476	$1,993.340	$10,115.682	$2,117.092	$7,998.591	$3,697.771	$1,515.023
2032	$151.297	$543.285	$2,032.959	$10,417.985	$2,189.095	$8,228.890	$3,795.924	$1,560.416
2033	$153.418	$551.766	$2,072.434	$10,724.622	$2,262.631	$8,461.991	$3,894.226	$1,606.322
2034	$155.515	$559.897	$2,111.725	$11,035.450	$2,337.692	$8,697.758	$3,992.555	$1,652.706
2035	$157.585	$567.660	$2,150.794	$11,350.316	$2,414.266	$8,936.050	$4,090.786	$1,699.533
2036	$159.627	$575.037	$2,189.601	$11,669.056	$2,492.340	$9,176.716	$4,188.792	$1,746.765
2037	$161.638	$582.009	$2,228.106	$11,991.499	$2,571.897	$9,419.602	$4,286.442	$1,794.363
2038	$163.618	$588.560	$2,266.269	$12,317.462	$2,652.921	$9,664.541	$4,383.603	$1,842.286
2039	$165.565	$594.674	$2,304.050	$12,646.754	$2,735.390	$9,911.364	$4,480.141	$1,890.491
2040	$167.476	$600.335	$2,341.407	$12,979.175	$2,819.282	$10,159.893	$4,575.918	$1,938.934

*Millions of 2005 Dollars

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	$220.577	$665.348	$2,818.038	$1,500.206	$11,205.977
2002	$233.313	$664.428	$2,747.176	$1,517.099	$12,102.570
2003	$240.233	$691.887	$2,838.529	$1,481.291	$12,368.091
2004	$281.117	$651.038	$2,893.739	$1,455.189	$13,401.132
2005	$315.279	$640.362	$3,004.885	$1,465.757	$12,999.619
2006	$304.909	$726.760	$3,076.073	$1,421.213	$13,879.185
2007	$292.387	$809.482	$3,013.392	$1,408.305	$14,778.006
2008	$272.542	$820.897	$3,126.528	$1,420.581	$13,758.580
2009	$241.307	$903.427	$2,963.949	$1,458.649	$14,178.125
2010	$244.961	$909.497	$3,082.318	$1,503.258	$14,491.382
2011	$251.906	$931.018	$3,244.773	$1,500.964	$15,121.254
2012	$261.296	$958.216	$3,418.837	$1,515.246	$15,770.282
2013	$273.781	$995.903	$3,597.545	$1,541.684	$16,461.785
2014	$288.217	$1,030.154	$3,771.212	$1,579.542	$17,156.392
2015	$304.238	$1,063.412	$3,949.745	$1,614.690	$17,834.232
2016	$319.933	$1,097.663	$4,129.903	$1,651.172	$18,512.189
2017	$336.309	$1,132.356	$4,314.795	$1,687.929	$19,188.076
2018	$353.248	$1,167.463	$4,503.850	$1,724.943	$19,870.872
2019	$370.751	$1,202.955	$4,696.898	$1,762.195	$20,562.332
2020	$388.818	$1,238.802	$4,893.751	$1,799.666	$21,267.422
2021	$407.448	$1,274.972	$5,094.200	$1,837.335	$21,985.038
2022	$426.638	$1,311.432	$5,298.021	$1,875.184	$22,714.718
2023	$446.383	$1,348.146	$5,504.967	$1,913.190	$23,455.941
2024	$466.678	$1,385.078	$5,714.777	$1,951.331	$24,208.234
2025	$487.516	$1,422.191	$5,927.169	$1,989.587	$24,970.993
2026	$508.887	$1,459.445	$6,141.843	$2,027.933	$25,743.677
2027	$530.781	$1,496.800	$6,358.485	$2,066.346	$26,525.648
2028	$553.185	$1,534.214	$6,576.761	$2,104.804	$27,316.359
2029	$576.086	$1,571.644	$6,796.321	$2,143.280	$28,115.004
2030	$599.468	$1,609.048	$7,016.802	$2,181.752	$28,920.937
2031	$623.312	$1,646.378	$7,237.823	$2,220.193	$29,733.152
2032	$647.600	$1,683.591	$7,458.993	$2,258.577	$30,550.629
2033	$672.310	$1,720.639	$7,679.905	$2,296.880	$31,372.523
2034	$697.419	$1,757.475	$7,900.144	$2,335.074	$32,197.960
2035	$722.902	$1,794.051	$8,119.282	$2,373.132	$33,026.041
2036	$748.731	$1,830.318	$8,336.882	$2,411.029	$33,855.838
2037	$774.880	$1,866.227	$8,552.502	$2,448.735	$34,686.402
2038	$801.316	$1,901.729	$8,765.691	$2,486.225	$35,516.760
2039	$828.009	$1,936.774	$8,975.994	$2,523.470	$36,345.922
2040	$854.925	$1,971.313	$9,182.955	$2,560.442	$37,172.878

*Millions of 2005 Dollars

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-11.6	-6.9	-2.7	27.6	-2.9	34.5	7.2	15.2
2003	30.3	22.7	1.7	-0.4	-3.3	0.1	0.4	17.1
2004	21.1	12.4	-14.7	27.9	15.7	29.8	2.6	10.2
2005	31.3	29.9	4.0	-16.7	-1.0	-18.9	0.9	11.4
2006	23.3	-5.1	12.2	23.4	35.5	21.4	8.5	-32.2
2007	-11.0	7.1	-0.2	16.6	29.3	14.2	6.1	3.0
2008	-3.9	-8.2	27.2	-25.3	7.1	-32.3	-0.8	1.6
2009	36.2	33.3	-10.6	12.7	-19.5	23.7	6.2	-9.6
2010	10.7	17.2	-3.6	2.4	3.9	2.1	1.2	0.2
2011	0.1	15.8	6.3	4.8	8.2	4.1	4.4	2.6
2012	2.7	5.0	4.3	5.2	6.4	4.9	4.0	3.1
2013	0.9	4.3	4.1	4.7	5.6	4.5	4.4	4.7
2014	2.1	4.2	3.7	4.3	4.9	4.2	4.7	4.7
2015	2.0	4.1	3.3	3.9	4.6	3.7	4.4	4.4
2016	2.0	3.1	3.0	3.8	4.4	3.6	4.3	4.2
2017	2.0	2.8	2.7	3.7	4.3	3.6	3.7	3.9
2018	1.9	2.9	2.6	3.6	3.9	3.5	3.6	3.7
2019	1.9	2.8	2.3	3.6	3.9	3.5	3.5	3.7
2020	1.9	2.7	2.3	3.5	3.9	3.4	3.4	3.7
2021	1.8	2.6	2.3	3.5	3.9	3.4	3.4	3.6
2022	1.8	2.5	2.3	3.4	3.8	3.3	3.3	3.5
2023	1.8	2.4	2.2	3.4	3.8	3.3	3.2	3.5
2024	1.7	2.3	2.2	3.4	3.7	3.3	3.2	3.4
2025	1.7	2.3	2.2	3.3	3.7	3.2	3.1	3.4
2026	1.7	2.2	2.2	3.3	3.7	3.2	3.0	3.3
2027	1.6	2.1	2.1	3.2	3.6	3.1	3.0	3.3
2028	1.6	2.0	2.1	3.2	3.6	3.1	2.9	3.2
2029	1.5	1.9	2.1	3.1	3.5	3.0	2.8	3.2
2030	1.5	1.8	2.1	3.1	3.5	3.0	2.8	3.1
2031	1.5	1.7	2.0	3.0	3.4	2.9	2.7	3.1
2032	1.4	1.6	2.0	3.0	3.4	2.9	2.7	3.0
2033	1.4	1.6	1.9	2.9	3.4	2.8	2.6	2.9
2034	1.4	1.5	1.9	2.9	3.3	2.8	2.5	2.9
2035	1.3	1.4	1.9	2.9	3.3	2.7	2.5	2.8
2036	1.3	1.3	1.8	2.8	3.2	2.7	2.4	2.8
2037	1.3	1.2	1.8	2.8	3.2	2.6	2.3	2.7
2038	1.2	1.1	1.7	2.7	3.2	2.6	2.3	2.7
2039	1.2	1.0	1.7	2.7	3.1	2.6	2.2	2.6
2040	1.2	1.0	1.6	2.6	3.1	2.5	2.1	2.6

*Percent Change

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	5.8	-0.1	-2.5	1.1	8.0
2003	3.0	4.1	3.3	-2.4	2.2
2004	17.0	-5.9	1.9	-1.8	8.4
2005	12.2	-1.6	3.8	0.7	-3.0
2006	-3.3	13.5	2.4	-3.0	6.8
2007	-4.1	11.4	-2.0	-0.9	6.5
2008	-6.8	1.4	3.8	0.9	-6.9
2009	-11.5	10.1	-5.2	2.7	3.0
2010	1.5	0.7	4.0	3.1	2.2
2011	2.8	2.4	5.3	-0.2	4.3
2012	3.7	2.9	5.4	1.0	4.3
2013	4.8	3.9	5.2	1.7	4.4
2014	5.3	3.4	4.8	2.5	4.2
2015	5.6	3.2	4.7	2.2	4.0
2016	5.2	3.2	4.6	2.3	3.8
2017	5.1	3.2	4.5	2.2	3.7
2018	5.0	3.1	4.4	2.2	3.6
2019	5.0	3.0	4.3	2.2	3.5
2020	4.9	3.0	4.2	2.1	3.4
2021	4.8	2.9	4.1	2.1	3.4
2022	4.7	2.9	4.0	2.1	3.3
2023	4.6	2.8	3.9	2.0	3.3
2024	4.5	2.7	3.8	2.0	3.2
2025	4.5	2.7	3.7	2.0	3.2
2026	4.4	2.6	3.6	1.9	3.1
2027	4.3	2.6	3.5	1.9	3.0
2028	4.2	2.5	3.4	1.9	3.0
2029	4.1	2.4	3.3	1.8	2.9
2030	4.1	2.4	3.2	1.8	2.9
2031	4.0	2.3	3.1	1.8	2.8
2032	3.9	2.3	3.1	1.7	2.7
2033	3.8	2.2	3.0	1.7	2.7
2034	3.7	2.1	2.9	1.7	2.6
2035	3.7	2.1	2.8	1.6	2.6
2036	3.6	2.0	2.7	1.6	2.5
2037	3.5	2.0	2.6	1.6	2.5
2038	3.4	1.9	2.5	1.5	2.4
2039	3.3	1.8	2.4	1.5	2.3
2040	3.3	1.8	2.3	1.5	2.3

*Percent Change

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	0.5	0.6	17.1	21.8	7.9	13.9	24.8	5.7
2002	0.4	0.6	15.5	20.4	7.5	12.9	24.9	5.7
2003	0.4	0.6	15.6	19.5	7.0	12.4	24.8	6.6
2004	0.4	0.7	13.8	19.0	7.1	11.9	24.8	6.9
2005	0.4	1.2	14.3	19.2	7.4	11.8	24.6	7.0
2006	0.4	1.4	15.8	21.2	9.4	11.8	25.6	6.8
2007	0.4	1.4	16.7	22.6	11.0	11.6	26.0	6.7
2008	0.4	1.5	19.5	22.4	11.0	11.4	25.9	6.4
2009	0.4	1.3	17.8	20.1	8.7	11.4	26.2	5.6
2010	0.4	1.3	16.9	19.6	8.3	11.2	26.0	5.5
2011	0.4	1.5	17.8	19.8	8.6	11.3	26.5	5.5
2012	0.4	1.6	18.4	20.1	8.7	11.4	27.0	5.6
2013	0.4	1.6	18.9	20.3	8.9	11.5	27.5	5.7
2014	0.4	1.6	19.3	20.5	9.0	11.5	28.2	5.8
2015	0.4	1.6	19.7	20.7	9.1	11.6	28.8	5.9
2016	0.4	1.7	20.1	20.9	9.2	11.6	29.4	6.0
2017	0.4	1.7	20.4	21.0	9.3	11.7	29.9	6.1
2018	0.4	1.7	20.7	21.1	9.4	11.7	30.4	6.2
2019	0.4	1.7	20.9	21.2	9.4	11.8	30.9	6.2
2020	0.4	1.7	21.1	21.4	9.5	11.8	31.3	6.3
2021	0.4	1.7	21.3	21.5	9.6	11.9	31.7	6.4
2022	0.4	1.7	21.6	21.6	9.6	11.9	32.2	6.5
2023	0.4	1.7	21.8	21.7	9.7	12.0	32.6	6.5
2024	0.4	1.7	22.0	21.8	9.8	12.0	33.0	6.6
2025	0.4	1.7	22.3	21.9	9.8	12.1	33.4	6.7
2026	0.4	1.7	22.5	22.0	9.9	12.1	33.9	6.7
2027	0.4	1.7	22.7	22.1	9.9	12.2	34.3	6.8
2028	0.4	1.6	22.9	22.2	10.0	12.2	34.7	6.9
2029	0.4	1.6	23.2	22.3	10.0	12.2	35.1	7.0
2030	0.4	1.6	23.4	22.4	10.1	12.3	35.4	7.0
2031	0.4	1.6	23.6	22.4	10.1	12.3	35.8	7.1
2032	0.4	1.6	23.8	22.5	10.2	12.3	36.2	7.2
2033	0.4	1.6	24.0	22.6	10.2	12.4	36.5	7.2
2034	0.4	1.6	24.2	22.7	10.3	12.4	36.9	7.3
2035	0.4	1.6	24.4	22.8	10.3	12.4	37.2	7.4
2036	0.4	1.6	24.7	22.8	10.4	12.5	37.6	7.4
2037	0.4	1.5	24.9	22.9	10.4	12.5	37.9	7.5
2038	0.4	1.5	25.1	23.0	10.5	12.5	38.2	7.5
2039	0.4	1.5	25.3	23.1	10.5	12.6	38.5	7.6
2040	0.4	1.5	25.5	23.1	10.5	12.6	38.8	7.7

*Thousands of Persons

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	2.8	5.9	56.2	27.6	163.1
2002	2.8	5.9	57.2	27.6	161.0
2003	2.7	5.9	57.1	27.6	160.8
2004	2.7	5.7	57.5	27.3	158.8
2005	2.7	5.8	57.6	27.1	159.7
2006	2.5	5.9	59.3	26.8	165.6
2007	2.2	6.2	60.5	26.3	169.0
2008	2.0	5.9	60.6	26.0	170.8
2009	1.7	5.8	59.0	26.8	164.7
2010	1.7	5.8	59.9	27.3	164.4
2011	1.7	5.8	61.7	26.9	167.7
2012	1.7	5.9	63.8	26.8	171.0
2013	1.7	6.0	65.8	26.8	174.7
2014	1.8	6.1	67.7	27.1	178.5
2015	1.8	6.1	69.6	27.4	182.1
2016	1.8	6.2	71.4	27.7	185.6
2017	1.9	6.3	73.3	27.9	188.8
2018	1.9	6.3	75.1	28.2	192.0
2019	1.9	6.4	77.0	28.4	195.0
2020	2.0	6.5	78.8	28.7	198.1
2021	2.0	6.5	80.6	28.9	201.1
2022	2.0	6.6	82.4	29.2	204.1
2023	2.1	6.7	84.2	29.4	207.1
2024	2.1	6.7	86.0	29.7	210.0
2025	2.1	6.8	87.7	29.9	212.9
2026	2.2	6.9	89.4	30.1	215.7
2027	2.2	6.9	91.1	30.4	218.5
2028	2.2	7.0	92.8	30.6	221.3
2029	2.3	7.0	94.5	30.8	224.0
2030	2.3	7.1	96.1	31.0	226.7
2031	2.3	7.1	97.6	31.2	229.3
2032	2.3	7.2	99.1	31.5	231.8
2033	2.4	7.2	100.6	31.7	234.3
2034	2.4	7.3	102.0	31.9	236.7
2035	2.4	7.3	103.4	32.1	239.0
2036	2.5	7.3	104.8	32.3	241.3
2037	2.5	7.4	106.0	32.4	243.5
2038	2.5	7.4	107.3	32.6	245.6
2039	2.5	7.5	108.4	32.8	247.6
2040	2.6	7.5	109.5	33.0	249.5

*Thousands of Persons

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-20.0	3.7	-9.3	-6.3	-4.4	-7.3	0.1	-0.3
2003	-9.2	1.8	0.7	-4.8	-7.1	-3.5	-0.3	15.1
2004	-4.3	16.3	-11.5	-2.2	1.7	-4.4	-0.1	4.8
2005	1.9	58.8	3.1	0.9	4.2	-1.1	-0.7	1.2
2006	-4.7	17.3	10.8	10.2	26.3	0.1	4.0	-1.9
2007	10.4	4.3	5.5	6.9	17.7	-1.8	1.7	-1.8
2008	0.5	7.7	17.0	-1.1	-0.7	-1.6	-0.2	-4.6
2009	4.4	-14.2	-8.9	-10.1	-20.5	-0.1	0.9	-12.4
2010	-0.6	1.9	-4.6	-2.7	-4.5	-1.3	-0.7	-2.0
2011	-2.5	14.6	5.1	1.3	2.7	0.3	2.0	0.2
2012	0.4	2.9	3.2	1.1	1.6	0.8	1.8	0.8
2013	0.1	1.5	2.8	1.3	1.8	0.9	2.0	2.2
2014	0.1	1.4	2.4	1.1	1.5	0.7	2.4	2.1
2015	0.1	1.4	2.0	0.9	1.4	0.5	2.3	1.8
2016	0.0	0.7	1.7	0.8	1.2	0.4	2.2	1.6
2017	0.0	0.3	1.5	0.7	1.0	0.4	1.7	1.4
2018	0.0	0.3	1.4	0.6	0.8	0.4	1.6	1.3
2019	0.0	0.2	1.1	0.5	0.7	0.4	1.5	1.2
2020	0.0	0.1	1.1	0.5	0.7	0.4	1.4	1.2
2021	-0.1	0.1	1.1	0.5	0.7	0.4	1.4	1.2
2022	-0.1	0.0	1.1	0.5	0.7	0.4	1.4	1.2
2023	-0.1	-0.1	1.1	0.5	0.6	0.4	1.3	1.1
2024	-0.1	-0.1	1.0	0.5	0.6	0.4	1.3	1.1
2025	-0.2	-0.2	1.0	0.5	0.6	0.4	1.3	1.1
2026	-0.2	-0.3	1.0	0.5	0.6	0.3	1.2	1.1
2027	-0.2	-0.3	1.0	0.4	0.6	0.3	1.2	1.1
2028	-0.2	-0.4	1.0	0.4	0.6	0.3	1.2	1.0
2029	-0.3	-0.5	1.0	0.4	0.5	0.3	1.1	1.0
2030	-0.3	-0.5	0.9	0.4	0.5	0.3	1.1	1.0
2031	-0.3	-0.6	0.9	0.4	0.5	0.3	1.1	1.0
2032	-0.3	-0.7	0.9	0.4	0.5	0.3	1.0	0.9
2033	-0.4	-0.7	0.9	0.4	0.5	0.3	1.0	0.9
2034	-0.4	-0.8	0.9	0.4	0.5	0.3	1.0	0.9
2035	-0.4	-0.8	0.9	0.3	0.4	0.3	0.9	0.9
2036	-0.4	-0.9	0.9	0.3	0.4	0.3	0.9	0.8
2037	-0.5	-1.0	0.8	0.3	0.4	0.2	0.9	0.8
2038	-0.5	-1.0	0.8	0.3	0.4	0.2	0.8	0.8
2039	-0.5	-1.1	0.8	0.3	0.4	0.2	0.8	0.8
2040	-0.5	-1.2	0.8	0.3	0.4	0.2	0.8	0.8

*Percent Change

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Beaumont-Port Arthur Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	-2.8	0.0	1.8	-0.1	-1.3
2003	-0.9	0.9	0.0	0.0	-0.1
2004	-1.1	-4.5	0.7	-1.0	-1.3
2005	0.1	1.6	0.0	-0.8	0.5
2006	-6.3	3.0	3.0	-1.1	3.7
2007	-12.9	4.5	2.0	-1.7	2.1
2008	-9.2	-4.0	0.2	-1.2	1.0
2009	-13.7	-1.8	-2.7	2.9	-3.5
2010	-1.5	-1.1	1.6	1.8	-0.2
2011	-0.6	0.3	3.0	-1.3	2.0
2012	0.5	1.1	3.3	-0.5	2.0
2013	1.5	1.9	3.2	0.3	2.2
2014	1.8	1.4	2.9	1.2	2.2
2015	2.2	1.2	2.8	1.0	2.0
2016	1.9	1.2	2.7	0.9	1.9
2017	1.9	1.2	2.6	0.9	1.8
2018	1.9	1.1	2.5	0.9	1.7
2019	1.8	1.1	2.4	0.9	1.6
2020	1.8	1.1	2.4	0.9	1.6
2021	1.7	1.0	2.3	0.9	1.5
2022	1.7	1.0	2.2	0.8	1.5
2023	1.6	1.0	2.2	0.8	1.5
2024	1.6	0.9	2.1	0.8	1.4
2025	1.5	0.9	2.0	0.8	1.4
2026	1.5	0.9	2.0	0.8	1.3
2027	1.5	0.8	1.9	0.8	1.3
2028	1.4	0.8	1.8	0.7	1.3
2029	1.4	0.8	1.8	0.7	1.2
2030	1.3	0.7	1.7	0.7	1.2
2031	1.3	0.7	1.6	0.7	1.1
2032	1.2	0.7	1.6	0.7	1.1
2033	1.2	0.6	1.5	0.7	1.1
2034	1.2	0.6	1.4	0.6	1.0
2035	1.1	0.6	1.4	0.6	1.0
2036	1.1	0.5	1.3	0.6	0.9
2037	1.0	0.5	1.2	0.6	0.9
2038	1.0	0.5	1.2	0.6	0.9
2039	0.9	0.5	1.1	0.6	0.8
2040	0.9	0.4	1.0	0.5	0.8

*Percent Change

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Forecast Tables for the Lake Charles Metropolitan Statistical Area

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Historical and Projected Values for Key Economic Indicators for the Lake Charles Metropolitan Statistical Area*

Date	Gross Area Product	Real Gross Area Product	Personal Income (by place of residence)	Real Personal Income (by place of residence)	Personal Income (by place of work)	Real Personal Income (by place of work)	Total Employment	Wage and Salary Employment
2001	$7,219.523	$9,071.073	$4,755.811	$5,208.573	$3,763.103	$4,121.358	106.6	92.2
2002	$7,779.770	$9,868.966	$4,968.939	$5,396.073	$3,966.110	$4,307.040	107.3	91.9
2003	$9,848.530	$11,725.630	$4,970.647	$5,265.821	$4,040.138	$4,280.055	107.1	90.8
2004	$11,660.784	$13,471.664	$5,143.970	$5,322.501	$4,171.937	$4,316.731	106.7	90.3
2005	$16,292.691	$16,292.691	$5,614.127	$5,614.127	$4,441.868	$4,441.868	108.4	92.1
2006	$15,149.754	$13,937.384	$6,063.662	$5,895.164	$4,735.952	$4,604.349	110.5	92.3
2007	$12,737.706	$11,173.012	$6,619.454	$6,326.452	$4,959.862	$4,740.320	114.2	94.8
2008	$12,207.762	$10,529.120	$7,164.145	$6,592.595	$5,465.781	$5,029.725	115.9	96.5
2009	$11,216.420	$10,197.152	$6,806.327	$6,273.910	$5,170.880	$4,766.394	113.0	93.2
2010	$11,754.402	$9,981.405	$6,944.412	$6,322.958	$5,169.839	$4,707.191	110.9	91.0
2011	$12,556.300	$10,419.044	$7,363.089	$6,500.549	$5,450.032	$4,811.595	112.9	92.6
2012	$13,460.832	$10,869.404	$7,825.175	$6,739.246	$5,771.816	$4,970.840	115.1	94.3
2013	$14,441.961	$11,343.488	$8,351.545	$7,021.210	$6,148.436	$5,169.039	117.5	96.3
2014	$15,469.890	$11,814.732	$8,934.991	$7,324.776	$6,565.553	$5,382.346	120.0	98.3
2015	$16,523.561	$12,271.614	$9,553.911	$7,637.591	$7,007.092	$5,601.612	122.4	100.1
2016	$17,621.103	$12,726.006	$10,210.054	$7,959.726	$7,474.189	$5,826.855	124.7	101.9
2017	$18,767.464	$13,181.732	$10,905.225	$8,291.241	$7,968.014	$6,058.080	126.8	103.6
2018	$19,970.454	$13,644.547	$11,641.288	$8,632.183	$8,489.769	$6,295.286	128.9	105.3
2019	$21,232.556	$14,113.883	$12,420.160	$8,982.587	$9,040.687	$6,538.463	131.0	106.9
2020	$22,559.087	$14,591.895	$13,243.815	$9,342.474	$9,622.031	$6,787.589	133.0	108.5
2021	$23,952.229	$15,078.020	$14,114.282	$9,711.852	$10,235.095	$7,042.634	135.0	110.0
2022	$25,414.053	$15,571.951	$15,033.644	$10,090.714	$10,881.199	$7,303.556	137.0	111.6
2023	$26,946.590	$16,073.346	$16,004.036	$10,479.038	$11,561.692	$7,570.304	139.0	113.1
2024	$28,551.897	$16,581.876	$17,027.642	$10,876.786	$12,277.950	$7,842.814	140.9	114.6
2025	$30,231.932	$17,097.151	$18,106.700	$11,283.907	$13,031.370	$8,121.014	142.8	116.1
2026	$31,988.675	$17,618.796	$19,243.491	$11,700.328	$13,823.374	$8,404.817	144.7	117.6
2027	$33,824.013	$18,146.390	$20,440.344	$12,125.965	$14,655.406	$8,694.126	146.6	119.0
2028	$35,739.874	$18,679.542	$21,699.629	$12,560.712	$15,528.925	$8,988.833	148.4	120.4
2029	$37,737.946	$19,217.745	$23,023.757	$13,004.446	$16,445.411	$9,288.817	150.2	121.8
2030	$39,819.996	$19,760.551	$24,415.176	$13,457.029	$17,406.356	$9,593.944	151.9	123.1
2031	$41,987.441	$20,307.359	$25,876.366	$13,918.300	$18,413.264	$9,904.069	153.6	124.4
2032	$44,241.601	$20,857.554	$27,409.839	$14,388.081	$19,467.647	$10,219.034	155.3	125.7
2033	$46,583.867	$21,410.586	$29,018.134	$14,866.175	$20,571.025	$10,538.667	156.9	126.9
2034	$49,015.523	$21,965.889	$30,703.808	$15,352.366	$21,724.920	$10,862.787	158.5	128.1
2035	$51,537.746	$22,522.878	$32,469.438	$15,846.416	$22,930.854	$11,191.196	160.0	129.3
2036	$54,151.498	$23,080.952	$34,317.614	$16,348.070	$24,190.345	$11,523.687	161.5	130.4
2037	$56,857.601	$23,639.497	$36,250.932	$16,857.052	$25,504.903	$11,860.039	162.9	131.4
2038	$59,656.724	$24,197.884	$38,271.990	$17,373.065	$26,876.028	$12,200.018	164.2	132.4
2039	$62,549.380	$24,755.471	$40,383.382	$17,895.793	$28,305.203	$12,543.379	165.5	133.4
2040	$65,535.920	$25,311.608	$42,587.693	$18,424.900	$29,793.894	$12,889.863	166.8	134.3

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Historical and Projected Values for Key Economic Indicators for the Lake Charles Metropolitan Statistical Area*

Date	Regional Consumer Price Index	Gross Product Deflator	Population	Industrial Production Index	Labor Productivity	Retail Sales	Real Retail Sales
2001	91.3	79.6	193.2	38.6	$98,415	N/A	N/A
2002	92.1	78.8	193.3	44.3	$107,386	$2,435.525	$2,644.885
2003	94.4	84.0	194.6	61.0	$129,123	$2,437.178	$2,581.906
2004	96.6	86.6	195.4	76.9	$149,150	$2,668.672	$2,761.293
2005	100.0	100.0	196.3	100.0	$176,850	$2,333.398	$2,333.398
2006	102.9	108.7	193.1	77.9	$151,068	$2,563.319	$2,492.089
2007	104.6	114.0	194.6	54.8	$117,887	$3,252.554	$3,108.584
2008	108.7	115.9	196.4	47.0	$109,067	$3,245.090	$2,986.200
2009	108.5	110.0	198.0	45.6	$109,355	$2,393.841	$2,206.586
2010	109.8	117.8	200.1	45.1	$109,657	$2,296.488	$2,090.975
2011	113.3	120.5	201.6	47.3	$112,462	$2,433.367	$2,148.314
2012	116.1	123.8	203.2	49.6	$115,223	$2,584.314	$2,225.679
2013	118.9	127.3	204.6	51.9	$117,839	$2,750.365	$2,312.254
2014	122.0	130.9	205.9	54.0	$120,247	$2,934.200	$2,405.415
2015	125.1	134.6	207.2	56.1	$122,553	$3,128.592	$2,501.060
2016	128.3	138.5	208.5	58.1	$124,853	$3,334.016	$2,599.189
2017	131.5	142.4	209.8	60.2	$127,206	$3,550.963	$2,699.797
2018	134.9	146.4	211.1	62.2	$129,607	$3,779.935	$2,802.876
2019	138.3	150.4	212.3	64.4	$132,053	$4,021.445	$2,908.415
2020	141.8	154.6	213.6	66.5	$134,525	$4,276.019	$3,016.396
2021	145.3	158.9	214.8	68.7	$137,019	$4,544.193	$3,126.800
2022	149.0	163.2	216.1	71.0	$139,537	$4,826.515	$3,239.599
2023	152.7	167.6	217.3	73.3	$142,076	$5,123.540	$3,354.764
2024	156.6	172.2	218.5	75.6	$144,638	$5,435.836	$3,472.261
2025	160.5	176.8	219.7	77.9	$147,222	$5,763.976	$3,592.050
2026	164.5	181.6	220.9	80.3	$149,828	$6,108.544	$3,714.085
2027	168.6	186.4	222.0	82.8	$152,456	$6,470.128	$3,838.318
2028	172.8	191.3	223.2	85.2	$155,105	$6,849.325	$3,964.694
2029	177.0	196.4	224.3	87.7	$157,776	$7,246.734	$4,093.153
2030	181.4	201.5	225.5	90.2	$160,468	$7,662.960	$4,223.630
2031	185.9	206.8	226.6	92.8	$163,181	$8,098.609	$4,356.055
2032	190.5	212.1	227.7	95.4	$165,913	$8,554.291	$4,490.352
2033	195.2	217.6	228.8	98.0	$168,665	$9,030.613	$4,626.441
2034	200.0	223.1	229.8	100.6	$171,436	$9,528.184	$4,764.236
2035	204.9	228.8	230.9	103.2	$174,226	$10,047.609	$4,903.645
2036	209.9	234.6	231.9	105.9	$177,035	$10,589.489	$5,044.573
2037	215.0	240.5	232.9	108.6	$179,862	$11,154.419	$5,186.918
2038	220.3	246.5	234.0	111.3	$182,707	$11,742.986	$5,330.574
2039	225.7	252.7	234.9	114.0	$185,571	$12,355.770	$5,475.428
2040	231.1	258.9	235.9	116.7	$188,452	$12,993.340	$5,621.365

*** GROSS AREA PRODUCT - Millions of Dollars; REAL GROSS AREA PRODUCT - Millions of 2005 Dollars; PERSONAL INCOME (By place of residence and wo Dollars; REAL PERSONAL INCOME (By place of residence and work) - Millions of 2005 Dollars; EMPLOYMENT - Thousands of Persons; TEXAS CONSUMER I 2005=100; GROSS PRODUCT DEFLATOR - 2005=100; POPULATION - Thousands of Persons; INDUSTRIAL PRODUCTION INDEX - 2005=100; LABOR PRODUCT Dollars per Employee; RETAIL SALES - Millions of Dollars; REAL RETAIL SALES - Millions of 2005 Dollars; Retail Sales in Louisiana Parishes is defined to con definitions maintained by the Texas Comptroller of Public Accounts to preserve consistency.**

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Historical and Projected Values for Key Economic Indicators for the Lake Charles Metropolitan Statistical Area**

Date	Gross Area Product	Real Gross Area Product	Personal Income (by place of residence)	Real Personal Income (by place of residence)	Personal Income (by place of work)	Real Personal Income (by place of work)	Total Employment	Wage and Salary Employment
2002	7.8	8.8	4.5	3.6	5.4	4.5	0.7	-0.3
2003	26.6	18.8	0.0	-2.4	1.9	-0.6	-0.2	-1.2
2004	18.4	14.9	3.5	1.1	3.3	0.9	-0.4	-0.5
2005	39.7	20.9	9.1	5.5	6.5	2.9	1.6	2.0
2006	-7.0	-14.5	8.0	5.0	6.6	3.7	1.9	0.1
2007	-15.9	-19.8	9.2	7.3	4.7	3.0	3.4	2.7
2008	-4.2	-5.8	8.2	4.2	10.2	6.1	1.5	1.9
2009	-8.1	-3.2	-5.0	-4.8	-5.4	-5.2	-2.5	-3.4
2010	4.8	-2.1	2.0	0.8	0.0	-1.2	-1.8	-2.4
2011	6.8	4.4	6.0	2.8	5.4	2.2	1.8	1.8
2012	7.2	4.3	6.3	3.7	5.9	3.3	1.9	1.8
2013	7.3	4.4	6.7	4.2	6.5	4.0	2.1	2.0
2014	7.1	4.2	7.0	4.3	6.8	4.1	2.1	2.1
2015	6.8	3.9	6.9	4.3	6.7	4.1	2.0	1.9
2016	6.6	3.7	6.9	4.2	6.7	4.0	1.9	1.8
2017	6.5	3.6	6.8	4.2	6.6	4.0	1.7	1.7
2018	6.4	3.5	6.7	4.1	6.5	3.9	1.7	1.6
2019	6.3	3.4	6.7	4.1	6.5	3.9	1.6	1.5
2020	6.2	3.4	6.6	4.0	6.4	3.8	1.6	1.5
2021	6.2	3.3	6.6	4.0	6.4	3.8	1.5	1.5
2022	6.1	3.3	6.5	3.9	6.3	3.7	1.5	1.4
2023	6.0	3.2	6.5	3.8	6.3	3.7	1.4	1.4
2024	6.0	3.2	6.4	3.8	6.2	3.6	1.4	1.3
2025	5.9	3.1	6.3	3.7	6.1	3.5	1.4	1.3
2026	5.8	3.1	6.3	3.7	6.1	3.5	1.3	1.3
2027	5.7	3.0	6.2	3.6	6.0	3.4	1.3	1.2
2028	5.7	2.9	6.2	3.6	6.0	3.4	1.2	1.2
2029	5.6	2.9	6.1	3.5	5.9	3.3	1.2	1.1
2030	5.5	2.8	6.0	3.5	5.8	3.3	1.2	1.1
2031	5.4	2.8	6.0	3.4	5.8	3.2	1.1	1.1
2032	5.4	2.7	5.9	3.4	5.7	3.2	1.1	1.0
2033	5.3	2.7	5.9	3.3	5.7	3.1	1.0	1.0
2034	5.2	2.6	5.8	3.3	5.6	3.1	1.0	0.9
2035	5.1	2.5	5.8	3.2	5.6	3.0	1.0	0.9
2036	5.1	2.5	5.7	3.2	5.5	3.0	0.9	0.9
2037	5.0	2.4	5.6	3.1	5.4	2.9	0.9	0.8
2038	4.9	2.4	5.6	3.1	5.4	2.9	0.8	0.8
2039	4.8	2.3	5.5	3.0	5.3	2.8	0.8	0.7
2040	4.8	2.2	5.5	3.0	5.3	2.8	0.7	0.7

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Historical and Projected Values for Key Economic Indicators for the Lake Charles Metropolitan Statistical Area**

Date	Regional Consumer Price Index	Gross Product Deflator	Population	Industrial Production Index	Labor Productivity	Retail Sales	Real Retail Sales
2002	0.9	-1.0	0.1	14.7	9.1	N/A	N/A
2003	2.5	6.5	0.6	37.7	20.2	0.1	-2.4
2004	2.4	3.1	0.5	26.1	15.5	9.5	6.9
2005	3.5	15.5	0.4	30.1	18.6	-12.6	-15.5
2006	2.9	8.7	-1.6	-22.1	-14.6	9.9	6.8
2007	1.7	4.9	0.8	-29.7	-22.0	26.9	24.7
2008	3.9	1.7	0.9	-14.2	-7.5	-0.2	-3.9
2009	-0.2	-5.1	0.8	-3.1	0.3	-26.2	-26.1
2010	1.2	7.1	1.0	-1.1	0.3	-4.1	-5.2
2011	3.1	2.3	0.8	5.0	2.6	6.0	2.7
2012	2.5	2.8	0.8	4.8	2.5	6.2	3.6
2013	2.4	2.8	0.7	4.5	2.3	6.4	3.9
2014	2.6	2.8	0.7	4.2	2.0	6.7	4.0
2015	2.5	2.8	0.6	3.8	1.9	6.6	4.0
2016	2.5	2.8	0.6	3.6	1.9	6.6	3.9
2017	2.5	2.8	0.6	3.5	1.9	6.5	3.9
2018	2.5	2.8	0.6	3.5	1.9	6.4	3.8
2019	2.5	2.8	0.6	3.4	1.9	6.4	3.8
2020	2.5	2.8	0.6	3.4	1.9	6.3	3.7
2021	2.5	2.8	0.6	3.3	1.9	6.3	3.7
2022	2.5	2.7	0.6	3.3	1.8	6.2	3.6
2023	2.5	2.7	0.6	3.2	1.8	6.2	3.6
2024	2.5	2.7	0.6	3.2	1.8	6.1	3.5
2025	2.5	2.7	0.5	3.1	1.8	6.0	3.4
2026	2.5	2.7	0.5	3.1	1.8	6.0	3.4
2027	2.5	2.7	0.5	3.0	1.8	5.9	3.3
2028	2.5	2.6	0.5	3.0	1.7	5.9	3.3
2029	2.5	2.6	0.5	2.9	1.7	5.8	3.2
2030	2.5	2.6	0.5	2.9	1.7	5.7	3.2
2031	2.5	2.6	0.5	2.8	1.7	5.7	3.1
2032	2.5	2.6	0.5	2.8	1.7	5.6	3.1
2033	2.5	2.6	0.5	2.7	1.7	5.6	3.0
2034	2.5	2.6	0.5	2.7	1.6	5.5	3.0
2035	2.5	2.5	0.5	2.6	1.6	5.5	2.9
2036	2.4	2.5	0.4	2.6	1.6	5.4	2.9
2037	2.4	2.5	0.4	2.5	1.6	5.3	2.8
2038	2.4	2.5	0.4	2.5	1.6	5.3	2.8
2039	2.4	2.5	0.4	2.4	1.6	5.2	2.7
2040	2.4	2.5	0.4	2.4	1.6	5.2	2.7

**Percent Change

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Historical and Projected Values for Key Measures of Per Capita Economic Performance for the Lake Charles Metropolitan Statistical Area

Date	Per Capita Gross Area Product*	Per Capita Real Gross Area Product*	Per Capita Personal Income (by place of residence)*	Per Capita Real Personal Income (by place of residence)*	Per Capita Retail Sales*	Per Capita Real Retail Sales*
2001	$37.374	$46.959	$24.620	$26.964	N/A	N/A
2002	$40.243	$51.050	$25.703	$27.913	$12.598	$13.681
2003	$50.622	$60.270	$25.549	$27.066	$12.527	$13.271
2004	$59.663	$68.929	$26.319	$27.233	$13.654	$14.128
2005	$83.015	$83.015	$28.605	$28.605	$11.889	$11.889
2006	$78.468	$72.189	$31.407	$30.534	$13.277	$12.908
2007	$65.457	$57.416	$34.016	$32.510	$16.714	$15.974
2008	$62.170	$53.621	$36.484	$33.574	$16.526	$15.208
2009	$56.646	$51.498	$34.374	$31.685	$12.089	$11.144
2010	$58.748	$49.886	$34.708	$31.602	$11.478	$10.451
2011	$62.280	$51.679	$36.522	$32.243	$12.070	$10.656
2012	$66.253	$53.499	$38.515	$33.170	$12.720	$10.955
2013	$70.593	$55.448	$40.823	$34.320	$13.444	$11.302
2014	$75.128	$57.377	$43.392	$35.572	$14.250	$11.682
2015	$79.739	$59.220	$46.105	$36.857	$15.098	$12.070
2016	$84.506	$61.031	$48.965	$38.173	$15.989	$12.465
2017	$89.452	$62.828	$51.978	$39.519	$16.925	$12.868
2018	$94.610	$64.641	$55.150	$40.895	$17.907	$13.279
2019	$99.989	$66.466	$58.490	$42.301	$18.938	$13.696
2020	$105.613	$68.313	$62.002	$43.738	$20.019	$14.122
2021	$111.486	$70.181	$65.695	$45.204	$21.151	$14.554
2022	$117.616	$72.067	$69.576	$46.700	$22.337	$14.993
2023	$124.009	$73.970	$73.651	$48.225	$23.579	$15.439
2024	$130.671	$75.889	$77.929	$49.779	$24.878	$15.891
2025	$137.607	$77.821	$82.417	$51.361	$26.236	$16.350
2026	$144.825	$79.767	$87.122	$52.972	$27.656	$16.815
2027	$152.328	$81.723	$92.054	$54.610	$29.139	$17.286
2028	$160.123	$83.689	$97.220	$56.275	$30.687	$17.763
2029	$168.215	$85.662	$102.627	$57.967	$32.302	$18.245
2030	$176.608	$87.641	$108.285	$59.684	$33.986	$18.733
2031	$185.306	$89.624	$114.202	$61.427	$35.742	$19.225
2032	$194.313	$91.608	$120.386	$63.194	$37.571	$19.722
2033	$203.631	$93.592	$126.846	$64.984	$39.475	$20.223
2034	$213.264	$95.572	$133.591	$66.797	$41.457	$20.729
2035	$223.215	$97.549	$140.628	$68.632	$43.517	$21.238
2036	$233.485	$99.518	$147.967	$70.488	$45.659	$21.751
2037	$244.077	$101.479	$155.617	$72.364	$47.883	$22.266
2038	$254.992	$103.429	$163.587	$74.258	$50.193	$22.785
2039	$266.229	$105.367	$171.884	$76.170	$52.590	$23.305
2040	$277.789	$107.289	$180.518	$78.098	$55.075	$23.827

*** PER CAPITA GROSS AREA PRODUCT - Dollars per Person; PER CAPITA REAL GROSS AREA PRODUCT - 2005 Dollars per Person; PER CAPITA PERSONAL INCOME (By place of residence) - Dollars per Person; PER CAPITA REAL PERSONAL INCOME (By place of residence) - 2005 Dollars per Person; PER CAPITA RETAIL SALES - Dollars per Person; PER CAPITA REAL RETAIL SALES - 2005 Dollars per Person; Retail Sales in Louisiana Parishes is defined to conform to the definitions maintained by the Texas Comptroller of Public Accounts to preserve consistency.**

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Historical and Projected Values for Key Measures of Per Capita Economic Performance for the Lake Charles Metropolitan Statistical Area

Date	Per Capita Gross Area Product**	Per Capita Real Gross Area Product**	Per Capita Personal Income (by place of residence)**	Per Capita Real Personal Income (by place of residence)**	Per Capita Retail Sales**	Per Capita Real Retail Sales**
2002	7.7	8.7	4.4	3.5	N/A	N/A
2003	25.8	18.1	(0.6)	(3.0)	(0.6)	(3.0)
2004	17.9	14.4	3.0	0.6	9.0	6.5
2005	39.1	20.4	8.7	5.0	(12.9)	(15.8)
2006	(5.5)	(13.0)	9.8	6.7	11.7	8.6
2007	(16.6)	(20.5)	8.3	6.5	25.9	23.8
2008	(5.0)	(6.6)	7.3	3.3	(1.1)	(4.8)
2009	(8.9)	(4.0)	(5.8)	(5.6)	(26.8)	(26.7)
2010	3.7	(3.1)	1.0	(0.3)	(5.1)	(6.2)
2011	6.0	3.6	5.2	2.0	5.2	2.0
2012	6.4	3.5	5.5	2.9	5.4	2.8
2013	6.6	3.6	6.0	3.5	5.7	3.2
2014	6.4	3.5	6.3	3.6	6.0	3.4
2015	6.1	3.2	6.3	3.6	6.0	3.3
2016	6.0	3.1	6.2	3.6	5.9	3.3
2017	5.9	2.9	6.2	3.5	5.9	3.2
2018	5.8	2.9	6.1	3.5	5.8	3.2
2019	5.7	2.8	6.1	3.4	5.8	3.1
2020	5.6	2.8	6.0	3.4	5.7	3.1
2021	5.6	2.7	6.0	3.4	5.7	3.1
2022	5.5	2.7	5.9	3.3	5.6	3.0
2023	5.4	2.6	5.9	3.3	5.6	3.0
2024	5.4	2.6	5.8	3.2	5.5	2.9
2025	5.3	2.5	5.8	3.2	5.5	2.9
2026	5.2	2.5	5.7	3.1	5.4	2.8
2027	5.2	2.5	5.7	3.1	5.4	2.8
2028	5.1	2.4	5.6	3.0	5.3	2.8
2029	5.1	2.4	5.6	3.0	5.3	2.7
2030	5.0	2.3	5.5	3.0	5.2	2.7
2031	4.9	2.3	5.5	2.9	5.2	2.6
2032	4.9	2.2	5.4	2.9	5.1	2.6
2033	4.8	2.2	5.4	2.8	5.1	2.5
2034	4.7	2.1	5.3	2.8	5.0	2.5
2035	4.7	2.1	5.3	2.7	5.0	2.5
2036	4.6	2.0	5.2	2.7	4.9	2.4
2037	4.5	2.0	5.2	2.7	4.9	2.4
2038	4.5	1.9	5.1	2.6	4.8	2.3
2039	4.4	1.9	5.1	2.6	4.8	2.3
2040	4.3	1.8	5.0	2.5	4.7	2.2

**Percent Change

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	$22.941	$389.100	$487.455	$2,431.418	$159.294	$2,272.124	$622.337	$382.845
2002	$20.277	$254.822	$454.953	$2,863.626	$176.299	$2,687.327	$662.099	$396.668
2003	$21.109	$208.675	$417.675	$4,871.787	$273.085	$4,598.702	$681.031	$460.114
2004	$25.776	$253.659	$429.456	$6,598.357	$389.832	$6,208.525	$725.631	$449.688
2005	$17.336	$277.866	$459.992	$10,924.025	$428.102	$10,495.924	$741.077	$432.952
2006	$29.108	$296.966	$567.005	$9,399.697	$320.223	$9,079.474	$834.540	$402.265
2007	$16.133	$395.721	$647.355	$6,785.568	$292.544	$6,493.024	$890.917	$399.186
2008	$15.336	$483.118	$798.069	$5,747.123	$193.148	$5,553.974	$891.309	$430.684
2009	$13.307	$328.681	$691.631	$5,035.487	$248.132	$4,787.355	$932.068	$369.052
2010	$12.328	$380.740	$544.059	$5,657.422	$265.258	$5,392.164	$887.557	$399.180
2011	$12.252	$460.215	$586.212	$6,056.403	$285.334	$5,771.069	$935.229	$415.562
2012	$12.731	$500.309	$625.898	$6,535.934	$304.435	$6,231.499	$989.003	$435.011
2013	$13.267	$539.499	$668.619	$7,030.757	$323.816	$6,706.941	$1,052.569	$462.328
2014	$13.873	$583.034	$712.802	$7,534.691	$342.767	$7,191.925	$1,124.115	$491.869
2015	$14.500	$629.859	$758.408	$8,039.950	$361.677	$7,678.272	$1,198.166	$521.821
2016	$15.149	$675.505	$804.206	$8,570.127	$380.645	$8,189.482	$1,275.075	$552.116
2017	$15.821	$721.241	$850.776	$9,130.016	$399.863	$8,730.153	$1,350.340	$582.419
2018	$16.517	$769.093	$898.378	$9,720.397	$418.750	$9,301.647	$1,427.496	$613.353
2019	$17.236	$819.073	$946.118	$10,343.516	$438.149	$9,905.367	$1,506.463	$645.556
2020	$17.980	$871.189	$995.898	$11,000.967	$458.212	$10,542.756	$1,588.498	$679.055
2021	$18.748	$925.441	$1,047.858	$11,694.240	$478.947	$11,215.293	$1,673.628	$713.878
2022	$19.541	$981.819	$1,102.043	$12,424.861	$500.364	$11,924.497	$1,761.877	$750.051
2023	$20.360	$1,040.306	$1,158.482	$13,194.395	$522.470	$12,671.924	$1,853.261	$787.597
2024	$21.204	$1,100.874	$1,217.260	$14,004.439	$545.274	$13,459.165	$1,947.788	$826.541
2025	$22.075	$1,163.487	$1,278.397	$14,856.628	$568.781	$14,287.846	$2,045.461	$866.905
2026	$22.973	$1,228.098	$1,341.980	$15,752.625	$592.998	$15,159.626	$2,146.274	$908.709
2027	$23.898	$1,294.649	$1,408.056	$16,694.126	$617.930	$16,076.196	$2,250.212	$951.972
2028	$24.850	$1,363.074	$1,476.767	$17,682.856	$643.580	$17,039.276	$2,357.251	$996.711
2029	$25.830	$1,433.294	$1,548.085	$18,720.566	$669.952	$18,050.614	$2,467.361	$1,042.941
2030	$26.838	$1,505.219	$1,622.128	$19,809.031	$697.047	$19,111.984	$2,580.500	$1,090.675
2031	$27.874	$1,578.749	$1,698.746	$20,950.050	$724.867	$20,225.182	$2,696.618	$1,139.924
2032	$28.939	$1,653.772	$1,777.778	$22,145.438	$753.413	$21,392.026	$2,815.654	$1,190.698
2033	$30.032	$1,730.167	$1,859.227	$23,397.030	$782.681	$22,614.348	$2,937.538	$1,243.002
2034	$31.155	$1,807.800	$1,943.091	$24,706.671	$812.672	$23,894.000	$3,062.190	$1,296.840
2035	$32.307	$1,886.527	$2,029.362	$26,076.219	$843.380	$25,232.839	$3,189.518	$1,352.214
2036	$33.488	$1,966.191	$2,118.028	$27,507.439	$874.801	$26,632.638	$3,319.421	$1,409.127
2037	$34.699	$2,046.623	$2,209.071	$29,002.081	$906.928	$28,095.153	$3,451.788	$1,467.579
2038	$35.940	$2,127.645	$2,302.466	$30,561.873	$939.754	$29,622.119	$3,586.496	$1,527.570
2039	$37.210	$2,209.069	$2,398.185	$32,188.510	$973.269	$31,215.241	$3,723.413	$1,589.096
2040	$38.511	$2,290.698	$2,496.191	$33,883.655	$1,007.463	$32,876.192	$3,862.394	$1,652.152

*Millions of Dollars

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	$296.551	$498.131	$1,484.889	$603.856	$7,219.523
2002	$365.136	$521.241	$1,600.304	$640.645	$7,779.770
2003	$320.227	$572.516	$1,617.988	$677.408	$9,848.530
2004	$346.841	$544.123	$1,577.738	$709.516	$11,660.784
2005	$354.238	$517.408	$1,806.878	$760.920	$16,292.691
2006	$331.947	$586.705	$1,908.031	$793.489	$15,149.754
2007	$323.525	$635.952	$1,885.431	$757.917	$12,737.706
2008	$388.626	$704.441	$1,965.734	$783.322	$12,207.762
2009	$376.701	$757.367	$1,908.586	$803.539	$11,216.420
2010	$372.437	$783.622	$1,892.777	$824.279	$11,754.402
2011	$379.029	$815.787	$2,044.571	$851.041	$12,556.300
2012	$394.416	$861.283	$2,220.087	$886.162	$13,460.832
2013	$416.103	$916.019	$2,410.688	$932.112	$14,441.961
2014	$440.804	$971.428	$2,608.752	$988.521	$15,469.890
2015	$468.275	$1,027.776	$2,818.852	$1,045.954	$16,523.561
2016	$496.083	$1,086.600	$3,040.079	$1,106.162	$17,621.103
2017	$525.011	$1,147.954	$3,274.644	$1,169.242	$18,767.464
2018	$555.066	$1,211.888	$3,522.977	$1,235.290	$19,970.454
2019	$586.250	$1,278.450	$3,785.489	$1,304.405	$21,232.556
2020	$618.562	$1,347.684	$4,062.568	$1,376.687	$22,559.087
2021	$651.995	$1,419.630	$4,354.576	$1,452.236	$23,952.229
2022	$686.543	$1,494.325	$4,661.842	$1,531.152	$25,414.053
2023	$722.192	$1,571.801	$4,984.662	$1,613.534	$26,946.590
2024	$758.926	$1,652.086	$5,323.294	$1,699.484	$28,551.897
2025	$796.723	$1,735.203	$5,677.951	$1,789.102	$30,231.932
2026	$835.559	$1,821.170	$6,048.801	$1,882.486	$31,988.675
2027	$875.405	$1,909.998	$6,435.962	$1,979.736	$33,824.013
2028	$916.224	$2,001.694	$6,839.496	$2,080.950	$35,739.874
2029	$957.980	$2,096.257	$7,259.409	$2,186.223	$37,737.946
2030	$1,000.628	$2,193.682	$7,695.644	$2,295.652	$39,819.996
2031	$1,044.120	$2,293.954	$8,148.077	$2,409.330	$41,987.441
2032	$1,088.403	$2,397.055	$8,616.517	$2,527.347	$44,241.601
2033	$1,133.418	$2,502.957	$9,100.702	$2,649.793	$46,583.867
2034	$1,179.104	$2,611.625	$9,600.293	$2,776.753	$49,015.523
2035	$1,225.394	$2,723.017	$10,114.877	$2,908.311	$51,537.746
2036	$1,272.216	$2,837.082	$10,643.959	$3,044.547	$54,151.498
2037	$1,319.495	$2,953.763	$11,186.966	$3,185.536	$56,857.601
2038	$1,367.151	$3,072.991	$11,743.242	$3,331.350	$59,656.724
2039	$1,415.101	$3,194.692	$12,312.047	$3,482.057	$62,549.380
2040	$1,463.257	$3,318.782	$12,892.559	$3,637.721	$65,535.920

*Millions of Dollars

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-11.6	-34.5	-6.7	17.8	10.7	18.3	6.4	3.6
2003	4.1	-18.1	-8.2	70.1	54.9	71.1	2.9	16.0
2004	22.1	21.6	2.8	35.4	42.8	35.0	6.5	-2.3
2005	-32.7	9.5	7.1	65.6	9.8	69.1	2.1	-3.7
2006	67.9	6.9	23.3	-14.0	-25.2	-13.5	12.6	-7.1
2007	-44.6	33.3	14.2	-27.8	-8.6	-28.5	6.8	-0.8
2008	-4.9	22.1	23.3	-15.3	-34.0	-14.5	0.0	7.9
2009	-13.2	-32.0	-13.3	-12.4	28.5	-13.8	4.6	-14.3
2010	-7.4	15.8	-21.3	12.4	6.9	12.6	-4.8	8.2
2011	-0.6	20.9	7.7	7.1	7.6	7.0	5.4	4.1
2012	3.9	8.7	6.8	7.9	6.7	8.0	5.7	4.7
2013	4.2	7.8	6.8	7.6	6.4	7.6	6.4	6.3
2014	4.6	8.1	6.6	7.2	5.9	7.2	6.8	6.4
2015	4.5	8.0	6.4	6.7	5.5	6.8	6.6	6.1
2016	4.5	7.2	6.0	6.6	5.2	6.7	6.4	5.8
2017	4.4	6.8	5.8	6.5	5.0	6.6	5.9	5.5
2018	4.4	6.6	5.6	6.5	4.7	6.5	5.7	5.3
2019	4.4	6.5	5.3	6.4	4.6	6.5	5.5	5.3
2020	4.3	6.4	5.3	6.4	4.6	6.4	5.4	5.2
2021	4.3	6.2	5.2	6.3	4.5	6.4	5.4	5.1
2022	4.2	6.1	5.2	6.2	4.5	6.3	5.3	5.1
2023	4.2	6.0	5.1	6.2	4.4	6.3	5.2	5.0
2024	4.1	5.8	5.1	6.1	4.4	6.2	5.1	4.9
2025	4.1	5.7	5.0	6.1	4.3	6.2	5.0	4.9
2026	4.1	5.6	5.0	6.0	4.3	6.1	4.9	4.8
2027	4.0	5.4	4.9	6.0	4.2	6.0	4.8	4.8
2028	4.0	5.3	4.9	5.9	4.2	6.0	4.8	4.7
2029	3.9	5.2	4.8	5.9	4.1	5.9	4.7	4.6
2030	3.9	5.0	4.8	5.8	4.0	5.9	4.6	4.6
2031	3.9	4.9	4.7	5.8	4.0	5.8	4.5	4.5
2032	3.8	4.8	4.7	5.7	3.9	5.8	4.4	4.5
2033	3.8	4.6	4.6	5.7	3.9	5.7	4.3	4.4
2034	3.7	4.5	4.5	5.6	3.8	5.7	4.2	4.3
2035	3.7	4.4	4.4	5.5	3.8	5.6	4.2	4.3
2036	3.7	4.2	4.4	5.5	3.7	5.5	4.1	4.2
2037	3.6	4.1	4.3	5.4	3.7	5.5	4.0	4.1
2038	3.6	4.0	4.2	5.4	3.6	5.4	3.9	4.1
2039	3.5	3.8	4.2	5.3	3.6	5.4	3.8	4.0
2040	3.5	3.7	4.1	5.3	3.5	5.3	3.7	4.0

*Percent Change

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	23.1	4.6	7.8	6.1	7.8
2003	-12.3	9.8	1.1	5.7	26.6
2004	8.3	-5.0	-2.5	4.7	18.4
2005	2.1	-4.9	14.5	7.2	39.7
2006	-6.3	13.4	5.6	4.3	-7.0
2007	-2.5	8.4	-1.2	-4.5	-15.9
2008	20.1	10.8	4.3	3.4	-4.2
2009	-3.1	7.5	-2.9	2.6	-8.1
2010	-1.1	3.5	-0.8	2.6	4.8
2011	1.8	4.1	8.0	3.2	6.8
2012	4.1	5.6	8.6	4.1	7.2
2013	5.5	6.4	8.6	5.2	7.3
2014	5.9	6.0	8.2	6.1	7.1
2015	6.2	5.8	8.1	5.8	6.8
2016	5.9	5.7	7.8	5.8	6.6
2017	5.8	5.6	7.7	5.7	6.5
2018	5.7	5.6	7.6	5.6	6.4
2019	5.6	5.5	7.5	5.6	6.3
2020	5.5	5.4	7.3	5.5	6.2
2021	5.4	5.3	7.2	5.5	6.2
2022	5.3	5.3	7.1	5.4	6.1
2023	5.2	5.2	6.9	5.4	6.0
2024	5.1	5.1	6.8	5.3	6.0
2025	5.0	5.0	6.7	5.3	5.9
2026	4.9	5.0	6.5	5.2	5.8
2027	4.8	4.9	6.4	5.2	5.7
2028	4.7	4.8	6.3	5.1	5.7
2029	4.6	4.7	6.1	5.1	5.6
2030	4.5	4.6	6.0	5.0	5.5
2031	4.3	4.6	5.9	5.0	5.4
2032	4.2	4.5	5.7	4.9	5.4
2033	4.1	4.4	5.6	4.8	5.3
2034	4.0	4.3	5.5	4.8	5.2
2035	3.9	4.3	5.4	4.7	5.1
2036	3.8	4.2	5.2	4.7	5.1
2037	3.7	4.1	5.1	4.6	5.0
2038	3.6	4.0	5.0	4.6	4.9
2039	3.5	4.0	4.8	4.5	4.8
2040	3.4	3.9	4.7	4.5	4.8

*Percent Change

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	$23.344	$906.099	$636.269	$3,185.778	$161.320	$3,024.458	$669.333	$397.297
2002	$22.165	$673.921	$568.657	$4,068.451	$179.288	$3,889.163	$711.743	$406.455
2003	$21.198	$369.095	$501.461	$6,259.566	$278.586	$5,980.980	$726.585	$462.802
2004	$22.820	$377.635	$480.046	$8,118.898	$392.559	$7,726.338	$753.975	$448.322
2005	$17.336	$277.866	$459.992	$10,924.025	$428.102	$10,495.924	$741.077	$432.952
2006	$30.050	$265.447	$517.442	$8,415.352	$320.531	$8,094.822	$813.338	$382.789
2007	$13.525	$330.560	$555.563	$5,665.525	$292.396	$5,373.129	$860.519	$377.467
2008	$12.631	$309.784	$680.829	$4,746.973	$193.017	$4,553.956	$846.932	$410.665
2009	$13.323	$414.075	$582.227	$4,556.181	$231.007	$4,325.174	$853.119	$330.369
2010	$10.814	$393.082	$469.795	$4,496.163	$252.249	$4,243.914	$833.163	$355.466
2011	$10.824	$454.899	$498.823	$4,688.343	$272.922	$4,415.421	$868.631	$364.444
2012	$11.116	$477.396	$519.858	$4,918.882	$290.252	$4,628.631	$901.847	$375.185
2013	$11.213	$497.626	$540.774	$5,143.314	$306.330	$4,836.984	$939.977	$392.481
2014	$11.447	$518.252	$560.009	$5,357.637	$321.269	$5,036.368	$982.919	$410.623
2015	$11.683	$539.289	$577.698	$5,557.586	$336.148	$5,221.438	$1,024.769	$428.217
2016	$11.919	$555.529	$594.088	$5,759.294	$350.952	$5,408.342	$1,067.002	$445.787
2017	$12.155	$570.711	$609.677	$5,965.283	$365.888	$5,599.395	$1,104.991	$462.736
2018	$12.392	$586.696	$624.670	$6,174.680	$380.106	$5,794.574	$1,143.284	$479.601
2019	$12.629	$602.611	$638.454	$6,388.818	$394.974	$5,993.844	$1,181.107	$496.870
2020	$12.866	$618.426	$652.418	$6,607.484	$410.322	$6,197.162	$1,219.658	$514.490
2021	$13.103	$634.111	$666.561	$6,830.573	$426.095	$6,404.478	$1,258.673	$532.453
2022	$13.340	$649.635	$680.866	$7,058.029	$442.295	$6,615.735	$1,298.117	$550.753
2023	$13.576	$664.968	$695.307	$7,289.793	$458.924	$6,830.869	$1,337.953	$569.382
2024	$13.812	$680.079	$709.894	$7,525.795	$475.987	$7,049.808	$1,378.143	$588.330
2025	$14.047	$694.935	$724.599	$7,765.956	$493.484	$7,272.472	$1,418.644	$607.588
2026	$14.281	$709.506	$739.434	$8,010.193	$511.417	$7,498.776	$1,459.416	$627.146
2027	$14.513	$723.760	$754.385	$8,258.411	$529.788	$7,728.624	$1,500.413	$646.991
2028	$14.744	$737.667	$769.492	$8,510.509	$548.596	$7,961.913	$1,541.589	$667.113
2029	$14.974	$751.195	$784.702	$8,766.376	$567.842	$8,198.533	$1,582.896	$687.498
2030	$15.202	$764.314	$800.041	$9,025.893	$587.526	$8,438.367	$1,624.286	$708.132
2031	$15.428	$776.995	$815.402	$9,288.933	$607.646	$8,681.287	$1,665.708	$729.000
2032	$15.652	$789.208	$830.684	$9,555.361	$628.201	$8,927.160	$1,707.108	$750.088
2033	$15.874	$800.924	$845.872	$9,825.032	$649.188	$9,175.844	$1,748.435	$771.379
2034	$16.093	$812.116	$860.950	$10,097.794	$670.605	$9,427.188	$1,789.634	$792.855
2035	$16.310	$822.757	$875.904	$10,373.485	$692.449	$9,681.036	$1,830.648	$814.500
2036	$16.523	$832.822	$890.716	$10,651.937	$714.715	$9,937.222	$1,871.422	$836.294
2037	$16.734	$842.285	$905.372	$10,932.971	$737.398	$10,195.573	$1,911.899	$858.219
2038	$16.942	$851.125	$919.855	$11,216.401	$760.494	$10,455.908	$1,952.019	$880.254
2039	$17.145	$859.319	$934.150	$11,502.035	$783.995	$10,718.039	$1,991.725	$902.378
2040	$17.346	$866.847	$948.241	$11,789.669	$807.896	$10,981.772	$2,030.957	$924.571

*Millions of 2005 Dollars

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	$275.759	$556.460	$1,692.472	$728.262	$9,071.073
2002	$343.270	$564.562	$1,768.541	$741.201	$9,868.966
2003	$302.384	$602.442	$1,736.299	$743.797	$11,725.630
2004	$333.461	$557.147	$1,634.514	$744.846	$13,471.664
2005	$354.238	$517.408	$1,806.878	$760.920	$16,292.691
2006	$337.406	$573.225	$1,844.206	$758.128	$13,937.384
2007	$327.146	$609.404	$1,742.613	$690.690	$11,173.012
2008	$399.858	$656.488	$1,775.824	$689.135	$10,529.120
2009	$387.578	$699.938	$1,670.969	$689.372	$10,197.152
2010	$387.550	$714.383	$1,627.191	$693.799	$9,981.405
2011	$398.344	$731.079	$1,711.110	$692.546	$10,419.044
2012	$412.994	$752.221	$1,800.964	$698.940	$10,869.404
2013	$432.518	$781.583	$1,893.065	$710.937	$11,343.488
2014	$455.103	$808.233	$1,982.317	$728.192	$11,814.732
2015	$480.168	$834.088	$2,073.930	$744.187	$12,271.614
2016	$504.695	$860.707	$2,166.196	$760.789	$12,726.006
2017	$530.272	$887.658	$2,260.741	$777.507	$13,181.732
2018	$556.711	$914.917	$2,357.260	$794.335	$13,644.547
2019	$584.013	$942.462	$2,455.656	$811.263	$14,113.883
2020	$612.176	$970.270	$2,555.824	$828.282	$14,591.895
2021	$641.197	$998.315	$2,657.651	$845.383	$15,078.020
2022	$671.071	$1,026.570	$2,761.013	$862.556	$15,571.951
2023	$701.790	$1,055.008	$2,865.777	$879.792	$16,073.346
2024	$733.342	$1,083.600	$2,971.801	$897.081	$16,581.876
2025	$765.716	$1,112.317	$3,078.935	$914.413	$17,097.151
2026	$798.896	$1,141.129	$3,187.020	$931.776	$17,618.796
2027	$832.864	$1,170.002	$3,295.889	$949.161	$18,146.390
2028	$867.600	$1,198.905	$3,405.365	$966.556	$18,679.542
2029	$903.081	$1,227.805	$3,515.268	$983.950	$19,217.745
2030	$939.280	$1,256.667	$3,625.405	$1,001.332	$19,760.551
2031	$976.168	$1,285.455	$3,735.580	$1,018.690	$20,307.359
2032	$1,013.715	$1,314.135	$3,845.591	$1,036.012	$20,857.554
2033	$1,051.885	$1,342.670	$3,955.229	$1,053.287	$21,410.586
2034	$1,090.642	$1,371.023	$4,064.280	$1,070.503	$21,965.889
2035	$1,129.946	$1,399.156	$4,172.525	$1,087.647	$22,522.878
2036	$1,169.753	$1,427.033	$4,279.745	$1,104.706	$23,080.952
2037	$1,210.020	$1,454.615	$4,385.713	$1,121.670	$23,639.497
2038	$1,250.697	$1,481.864	$4,490.203	$1,138.524	$24,197.884
2039	$1,291.734	$1,508.741	$4,592.987	$1,155.257	$24,755.471
2040	$1,333.078	$1,535.208	$4,693.836	$1,171.855	$25,311.608

*Millions of 2005 Dollars

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-5.0	-25.6	-10.6	27.7	11.1	28.6	6.3	2.3
2003	-4.4	-45.2	-11.8	53.9	55.4	53.8	2.1	13.9
2004	7.7	2.3	-4.3	29.7	40.9	29.2	3.8	-3.1
2005	-24.0	-26.4	-4.2	34.6	9.1	35.8	-1.7	-3.4
2006	73.3	-4.5	12.5	-23.0	-25.1	-22.9	9.8	-11.6
2007	-55.0	24.5	7.4	-32.7	-8.8	-33.6	5.8	-1.4
2008	-6.6	-6.3	22.5	-16.2	-34.0	-15.2	-1.6	8.8
2009	5.5	33.7	-14.5	-4.0	19.7	-5.0	0.7	-19.6
2010	-18.8	-5.1	-19.3	-1.3	9.2	-1.9	-2.3	7.6
2011	0.1	15.7	6.2	4.3	8.2	4.0	4.3	2.5
2012	2.7	4.9	4.2	4.9	6.3	4.8	3.8	2.9
2013	0.9	4.2	4.0	4.6	5.5	4.5	4.2	4.6
2014	2.1	4.1	3.6	4.2	4.9	4.1	4.6	4.6
2015	2.1	4.1	3.2	3.7	4.6	3.7	4.3	4.3
2016	2.0	3.0	2.8	3.6	4.4	3.6	4.1	4.1
2017	2.0	2.7	2.6	3.6	4.3	3.5	3.6	3.8
2018	1.9	2.8	2.5	3.5	3.9	3.5	3.5	3.6
2019	1.9	2.7	2.2	3.5	3.9	3.4	3.3	3.6
2020	1.9	2.6	2.2	3.4	3.9	3.4	3.3	3.5
2021	1.8	2.5	2.2	3.4	3.8	3.3	3.2	3.5
2022	1.8	2.4	2.1	3.3	3.8	3.3	3.1	3.4
2023	1.8	2.4	2.1	3.3	3.8	3.3	3.1	3.4
2024	1.7	2.3	2.1	3.2	3.7	3.2	3.0	3.3
2025	1.7	2.2	2.1	3.2	3.7	3.2	2.9	3.3
2026	1.7	2.1	2.0	3.1	3.6	3.1	2.9	3.2
2027	1.6	2.0	2.0	3.1	3.6	3.1	2.8	3.2
2028	1.6	1.9	2.0	3.1	3.6	3.0	2.7	3.1
2029	1.6	1.8	2.0	3.0	3.5	3.0	2.7	3.1
2030	1.5	1.7	2.0	3.0	3.5	2.9	2.6	3.0
2031	1.5	1.7	1.9	2.9	3.4	2.9	2.6	2.9
2032	1.5	1.6	1.9	2.9	3.4	2.8	2.5	2.9
2033	1.4	1.5	1.8	2.8	3.3	2.8	2.4	2.8
2034	1.4	1.4	1.8	2.8	3.3	2.7	2.4	2.8
2035	1.3	1.3	1.7	2.7	3.3	2.7	2.3	2.7
2036	1.3	1.2	1.7	2.7	3.2	2.6	2.2	2.7
2037	1.3	1.1	1.6	2.6	3.2	2.6	2.2	2.6
2038	1.2	1.0	1.6	2.6	3.1	2.6	2.1	2.6
2039	1.2	1.0	1.6	2.5	3.1	2.5	2.0	2.5
2040	1.2	0.9	1.5	2.5	3.0	2.5	2.0	2.5

*Percent Change

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	24.5	1.5	4.5	1.8	8.8
2003	-11.9	6.7	-1.8	0.4	18.8
2004	10.3	-7.5	-5.9	0.1	14.9
2005	6.2	-7.1	10.5	2.2	20.9
2006	-4.8	10.8	2.1	-0.4	-14.5
2007	-3.0	6.3	-5.5	-8.9	-19.8
2008	22.2	7.7	1.9	-0.2	-5.8
2009	-3.1	6.6	-5.9	0.0	-3.2
2010	0.0	2.1	-2.6	0.6	-2.1
2011	2.8	2.3	5.2	-0.2	4.4
2012	3.7	2.9	5.3	0.9	4.3
2013	4.7	3.9	5.1	1.7	4.4
2014	5.2	3.4	4.7	2.4	4.2
2015	5.5	3.2	4.6	2.2	3.9
2016	5.1	3.2	4.4	2.2	3.7
2017	5.1	3.1	4.4	2.2	3.6
2018	5.0	3.1	4.3	2.2	3.5
2019	4.9	3.0	4.2	2.1	3.4
2020	4.8	3.0	4.1	2.1	3.4
2021	4.7	2.9	4.0	2.1	3.3
2022	4.7	2.8	3.9	2.0	3.3
2023	4.6	2.8	3.8	2.0	3.2
2024	4.5	2.7	3.7	2.0	3.2
2025	4.4	2.7	3.6	1.9	3.1
2026	4.3	2.6	3.5	1.9	3.1
2027	4.3	2.5	3.4	1.9	3.0
2028	4.2	2.5	3.3	1.8	2.9
2029	4.1	2.4	3.2	1.8	2.9
2030	4.0	2.4	3.1	1.8	2.8
2031	3.9	2.3	3.0	1.7	2.8
2032	3.8	2.2	2.9	1.7	2.7
2033	3.8	2.2	2.9	1.7	2.7
2034	3.7	2.1	2.8	1.6	2.6
2035	3.6	2.1	2.7	1.6	2.5
2036	3.5	2.0	2.6	1.6	2.5
2037	3.4	1.9	2.5	1.5	2.4
2038	3.4	1.9	2.4	1.5	2.4
2039	3.3	1.8	2.3	1.5	2.3
2040	3.2	1.8	2.2	1.4	2.2

*Percent Change

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	0.3	1.1	9.5	10.9	2.2	8.7	13.9	3.8
2002	0.3	1.3	8.8	10.2	1.8	8.3	13.9	3.9
2003	0.3	1.2	8.0	9.6	1.7	7.8	14.0	4.1
2004	0.3	1.3	7.8	9.3	1.8	7.5	14.2	3.8
2005	0.3	1.2	8.2	9.2	1.5	7.7	13.7	3.9
2006	0.4	1.2	9.1	9.0	1.4	7.6	14.4	3.9
2007	0.4	1.4	9.7	9.4	2.0	7.4	14.6	3.9
2008	0.4	1.4	9.6	9.6	1.6	8.0	14.5	4.0
2009	0.4	1.2	8.7	9.1	1.9	7.2	13.9	3.5
2010	0.4	1.1	7.4	9.2	2.1	7.1	13.3	3.5
2011	0.4	1.3	7.7	9.3	2.2	7.1	13.5	3.5
2012	0.4	1.3	8.0	9.4	2.2	7.2	13.7	3.5
2013	0.4	1.3	8.2	9.5	2.2	7.3	14.0	3.6
2014	0.4	1.3	8.4	9.6	2.3	7.3	14.3	3.6
2015	0.4	1.3	8.6	9.6	2.3	7.3	14.6	3.7
2016	0.4	1.3	8.7	9.7	2.3	7.4	14.9	3.7
2017	0.4	1.4	8.8	9.7	2.3	7.4	15.1	3.8
2018	0.4	1.4	8.9	9.8	2.4	7.4	15.3	3.8
2019	0.4	1.4	9.0	9.8	2.4	7.4	15.5	3.9
2020	0.4	1.4	9.1	9.9	2.4	7.5	15.7	3.9
2021	0.4	1.4	9.2	9.9	2.4	7.5	15.9	4.0
2022	0.4	1.4	9.3	10.0	2.4	7.5	16.1	4.0
2023	0.4	1.4	9.4	10.0	2.4	7.5	16.3	4.0
2024	0.4	1.4	9.5	10.0	2.5	7.6	16.5	4.1
2025	0.4	1.3	9.5	10.1	2.5	7.6	16.7	4.1
2026	0.4	1.3	9.6	10.1	2.5	7.6	16.8	4.2
2027	0.4	1.3	9.7	10.1	2.5	7.6	17.0	4.2
2028	0.4	1.3	9.8	10.2	2.5	7.7	17.2	4.2
2029	0.4	1.3	9.9	10.2	2.5	7.7	17.4	4.3
2030	0.4	1.3	10.0	10.2	2.5	7.7	17.5	4.3
2031	0.4	1.3	10.0	10.3	2.6	7.7	17.7	4.4
2032	0.4	1.3	10.1	10.3	2.6	7.7	17.8	4.4
2033	0.4	1.3	10.2	10.3	2.6	7.8	18.0	4.4
2034	0.4	1.3	10.3	10.4	2.6	7.8	18.1	4.5
2035	0.4	1.3	10.4	10.4	2.6	7.8	18.3	4.5
2036	0.4	1.3	10.4	10.4	2.6	7.8	18.4	4.5
2037	0.4	1.2	10.5	10.4	2.6	7.8	18.5	4.6
2038	0.4	1.2	10.6	10.5	2.6	7.8	18.6	4.6
2039	0.4	1.2	10.7	10.5	2.6	7.9	18.8	4.6
2040	0.4	1.2	10.7	10.5	2.6	7.9	18.9	4.7

*Thousands of Persons

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	1.9	3.5	32.0	15.2	92.2
2002	1.8	3.5	33.0	15.3	91.9
2003	1.5	3.6	33.3	15.3	90.8
2004	1.4	3.5	33.5	15.2	90.3
2005	1.3	3.3	35.6	15.3	92.1
2006	1.2	3.3	34.6	15.2	92.3
2007	1.2	3.3	35.6	15.3	94.8
2008	1.3	3.3	36.0	16.4	96.5
2009	1.2	3.2	35.3	16.7	93.2
2010	1.2	3.2	35.0	16.9	91.0
2011	1.2	3.2	36.0	16.6	92.6
2012	1.2	3.2	37.1	16.5	94.3
2013	1.2	3.3	38.3	16.6	96.3
2014	1.2	3.3	39.3	16.8	98.3
2015	1.2	3.4	40.4	16.9	100.1
2016	1.3	3.4	41.4	17.1	101.9
2017	1.3	3.5	42.4	17.2	103.6
2018	1.3	3.5	43.5	17.4	105.3
2019	1.3	3.5	44.5	17.5	106.9
2020	1.4	3.6	45.5	17.7	108.5
2021	1.4	3.6	46.5	17.8	110.0
2022	1.4	3.6	47.5	18.0	111.6
2023	1.4	3.7	48.5	18.1	113.1
2024	1.4	3.7	49.4	18.3	114.6
2025	1.5	3.7	50.4	18.4	116.1
2026	1.5	3.8	51.3	18.6	117.6
2027	1.5	3.8	52.2	18.7	119.0
2028	1.5	3.8	53.1	18.8	120.4
2029	1.6	3.9	54.0	19.0	121.8
2030	1.6	3.9	54.9	19.1	123.1
2031	1.6	3.9	55.7	19.2	124.4
2032	1.6	3.9	56.5	19.3	125.7
2033	1.6	4.0	57.3	19.5	126.9
2034	1.6	4.0	58.0	19.6	128.1
2035	1.7	4.0	58.8	19.7	129.3
2036	1.7	4.0	59.4	19.8	130.4
2037	1.7	4.1	60.1	19.9	131.4
2038	1.7	4.1	60.7	20.0	132.4
2039	1.7	4.1	61.3	20.1	133.4
2040	1.7	4.1	61.9	20.2	134.3

*Thousands of Persons

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-14.5	21.1	-7.3	-7.0	-18.1	-4.1	-0.5	1.7
2003	2.5	-13.4	-8.8	-5.8	-4.5	-6.1	1.4	4.7
2004	11.4	8.3	-2.1	-2.4	5.8	-4.2	0.9	-8.0
2005	1.8	-5.2	4.9	-1.3	-20.1	3.4	-3.2	4.5
2006	7.5	-3.0	11.3	-2.1	-4.6	-1.6	5.1	-1.6
2007	-0.7	19.0	5.7	3.8	40.5	-2.9	1.5	0.7
2008	2.7	0.3	-0.3	1.9	-19.7	7.7	-1.0	1.8
2009	-0.3	-11.5	-9.8	-4.8	18.8	-9.5	-4.3	-10.7
2010	3.2	-11.0	-15.0	1.4	12.2	-1.4	-4.2	-2.6
2011	-2.5	14.5	5.0	0.8	2.7	0.2	1.8	0.1
2012	0.4	2.8	3.1	0.9	1.5	0.7	1.6	0.7
2013	0.1	1.4	2.7	1.1	1.8	0.9	1.8	2.1
2014	0.1	1.3	2.3	0.9	1.5	0.7	2.3	2.0
2015	0.1	1.3	1.9	0.6	1.4	0.4	2.1	1.7
2016	0.1	0.6	1.6	0.6	1.2	0.4	2.0	1.5
2017	0.0	0.2	1.4	0.5	1.0	0.4	1.5	1.3
2018	0.0	0.2	1.3	0.5	0.7	0.4	1.4	1.2
2019	0.0	0.1	1.0	0.4	0.7	0.4	1.3	1.1
2020	0.0	0.0	1.0	0.4	0.7	0.4	1.3	1.1
2021	-0.1	0.0	1.0	0.4	0.7	0.3	1.2	1.1
2022	-0.1	-0.1	1.0	0.4	0.6	0.3	1.2	1.1
2023	-0.1	-0.1	0.9	0.4	0.6	0.3	1.2	1.0
2024	-0.1	-0.2	0.9	0.4	0.6	0.3	1.1	1.0
2025	-0.2	-0.3	0.9	0.4	0.6	0.3	1.1	1.0
2026	-0.2	-0.3	0.9	0.4	0.6	0.3	1.1	1.0
2027	-0.2	-0.4	0.9	0.4	0.6	0.3	1.0	1.0
2028	-0.2	-0.5	0.9	0.3	0.5	0.3	1.0	0.9
2029	-0.3	-0.5	0.9	0.3	0.5	0.3	1.0	0.9
2030	-0.3	-0.6	0.8	0.3	0.5	0.3	0.9	0.9
2031	-0.3	-0.7	0.8	0.3	0.5	0.3	0.9	0.9
2032	-0.3	-0.7	0.8	0.3	0.5	0.2	0.9	0.8
2033	-0.3	-0.8	0.8	0.3	0.5	0.2	0.8	0.8
2034	-0.4	-0.9	0.8	0.3	0.4	0.2	0.8	0.8
2035	-0.4	-0.9	0.8	0.3	0.4	0.2	0.8	0.8
2036	-0.4	-1.0	0.7	0.3	0.4	0.2	0.7	0.7
2037	-0.4	-1.1	0.7	0.2	0.4	0.2	0.7	0.7
2038	-0.5	-1.1	0.7	0.2	0.4	0.2	0.7	0.7
2039	-0.5	-1.2	0.7	0.2	0.4	0.2	0.6	0.7
2040	-0.5	-1.2	0.7	0.2	0.3	0.2	0.6	0.7

*Percent Change

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Lake Charles Metropolitan Statistical Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	-7.7	1.8	3.0	0.8	-0.3
2003	-15.4	2.0	0.8	0.0	-1.2
2004	-6.9	-2.4	0.8	-0.6	-0.5
2005	-4.9	-6.6	6.1	0.9	2.0
2006	-12.2	0.6	-2.8	-0.5	0.1
2007	1.7	-0.4	3.1	0.6	2.7
2008	8.4	2.1	1.1	7.2	1.9
2009	-5.4	-4.9	-2.0	1.7	-3.4
2010	-3.0	0.2	-1.0	0.8	-2.4
2011	-0.6	0.3	2.9	-1.3	1.8
2012	0.5	1.1	3.2	-0.6	1.8
2013	1.5	1.9	3.1	0.3	2.0
2014	1.8	1.4	2.8	1.1	2.1
2015	2.1	1.2	2.7	0.9	1.9
2016	1.9	1.2	2.5	0.9	1.8
2017	1.8	1.1	2.5	0.9	1.7
2018	1.8	1.1	2.4	0.9	1.6
2019	1.8	1.1	2.3	0.9	1.5
2020	1.7	1.0	2.3	0.9	1.5
2021	1.7	1.0	2.2	0.8	1.5
2022	1.6	1.0	2.1	0.8	1.4
2023	1.6	0.9	2.1	0.8	1.4
2024	1.5	0.9	2.0	0.8	1.3
2025	1.5	0.9	1.9	0.8	1.3
2026	1.5	0.8	1.9	0.7	1.3
2027	1.4	0.8	1.8	0.7	1.2
2028	1.4	0.8	1.7	0.7	1.2
2029	1.3	0.7	1.7	0.7	1.1
2030	1.3	0.7	1.6	0.7	1.1
2031	1.2	0.7	1.5	0.7	1.1
2032	1.2	0.6	1.4	0.6	1.0
2033	1.1	0.6	1.4	0.6	1.0
2034	1.1	0.6	1.3	0.6	0.9
2035	1.1	0.6	1.2	0.6	0.9
2036	1.0	0.5	1.2	0.6	0.9
2037	1.0	0.5	1.1	0.6	0.8
2038	0.9	0.5	1.0	0.5	0.8
2039	0.9	0.4	1.0	0.5	0.7
2040	0.8	0.4	0.9	0.5	0.7

*Percent Change

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Forecast Tables for the Golden Pass Primary Impact Area

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Historical and Projected Values for Key Economic Indicators for the Golden Pass Impact Area*

Date	Gross Area Product	Real Gross Area Product	Personal Income (by place of residence)	Real Personal Income (by place of residence)	Personal Income (by place of work)	Real Personal Income (by place of work)	Total Employment	Wage and Salary Employment
2001	$16,927.103	$20,277.050	$14,301.317	$15,662.830	$10,883.401	$11,919.522	298.5	255.3
2002	$18,174.867	$21,971.536	$14,736.754	$16,003.536	$11,260.530	$12,228.494	299.7	252.9
2003	$20,966.351	$24,093.721	$15,110.948	$16,008.287	$11,615.155	$12,304.902	300.9	251.6
2004	$24,032.320	$26,872.796	$15,463.160	$15,999.836	$11,900.952	$12,313.996	300.3	249.1
2005	$29,292.310	$29,292.310	$16,720.736	$16,720.736	$12,646.072	$12,646.072	305.3	251.8
2006	$29,828.208	$27,816.569	$18,008.287	$17,507.871	$13,794.686	$13,411.358	314.7	257.9
2007	$29,154.690	$25,951.018	$19,320.077	$18,464.898	$14,383.071	$13,746.422	323.7	263.8
2008	$27,849.899	$24,287.700	$20,939.234	$19,268.719	$15,530.213	$14,291.225	327.7	267.3
2009	$26,836.915	$24,375.277	$20,657.451	$19,041.545	$15,001.305	$13,827.845	319.3	258.0
2010	$28,258.244	$24,472.787	$21,512.639	$19,587.476	$15,465.769	$14,081.740	317.4	255.4
2011	$30,153.660	$25,540.298	$22,824.480	$20,150.734	$16,314.412	$14,403.280	323.5	260.3
2012	$32,286.239	$26,639.686	$24,272.672	$20,904.263	$17,288.716	$14,889.497	329.9	265.3
2013	$34,624.567	$27,805.273	$25,922.276	$21,793.065	$18,428.624	$15,493.092	337.1	271.0
2014	$37,088.316	$28,971.124	$27,751.299	$22,750.113	$19,691.451	$16,142.766	344.6	276.8
2015	$39,621.857	$30,105.847	$29,692.951	$23,737.151	$21,029.182	$16,811.157	351.7	282.3
2016	$42,259.362	$31,238.195	$31,752.890	$24,754.456	$22,445.377	$17,498.347	358.6	287.5
2017	$45,007.866	$32,369.808	$33,936.966	$25,802.271	$23,943.701	$18,204.393	365.1	292.4
2018	$47,886.582	$33,515.419	$36,251.221	$26,880.805	$25,527.925	$18,929.326	371.4	297.2
2019	$50,902.472	$34,676.215	$38,701.884	$27,990.224	$27,201.924	$19,673.149	377.6	301.9
2020	$54,071.161	$35,859.316	$41,295.377	$29,130.654	$28,969.673	$20,435.836	383.8	306.6
2021	$57,397.726	$37,063.058	$44,038.308	$30,302.181	$30,835.247	$21,217.328	389.9	311.1
2022	$60,886.840	$38,286.668	$46,937.470	$31,504.841	$32,802.816	$22,017.537	396.0	315.7
2023	$64,543.038	$39,529.287	$49,999.837	$32,738.628	$34,876.645	$22,836.344	402.1	320.2
2024	$68,370.942	$40,790.110	$53,232.561	$34,003.485	$37,061.085	$23,673.594	408.1	324.6
2025	$72,374.825	$42,068.144	$56,642.966	$35,299.305	$39,360.574	$24,529.099	414.0	329.0
2026	$76,559.053	$43,362.473	$60,238.545	$36,625.929	$41,779.630	$25,402.635	419.9	333.3
2027	$80,927.691	$44,672.039	$64,026.952	$37,983.145	$44,322.844	$26,293.943	425.6	337.6
2028	$85,484.948	$45,995.901	$68,015.992	$39,370.685	$46,994.878	$27,202.728	431.3	341.7
2029	$90,234.244	$47,332.749	$72,213.619	$40,788.223	$49,800.454	$28,128.655	436.9	345.8
2030	$95,179.290	$48,681.488	$76,627.922	$42,235.377	$52,744.350	$29,071.355	442.4	349.8
2031	$100,322.619	$50,040.512	$81,267.115	$43,711.704	$55,831.393	$30,030.417	447.8	353.7
2032	$105,666.463	$51,408.183	$86,139.531	$45,216.702	$59,066.447	$31,005.392	453.1	357.5
2033	$111,213.354	$52,783.109	$91,253.604	$46,749.804	$62,454.410	$31,995.793	458.2	361.2
2034	$116,965.515	$54,163.849	$96,617.860	$48,310.383	$66,000.199	$33,001.092	463.3	364.8
2035	$122,924.837	$55,548.919	$102,240.899	$49,897.748	$69,708.743	$34,020.723	468.2	368.3
2036	$129,092.706	$56,936.790	$108,131.387	$51,511.142	$73,584.973	$35,054.078	472.9	371.6
2037	$135,470.114	$58,325.899	$114,298.032	$53,149.746	$77,633.809	$36,100.510	477.5	374.9
2038	$142,057.642	$59,714.644	$120,749.570	$54,812.674	$81,860.150	$37,159.335	482.0	378.0
2039	$148,855.443	$61,101.393	$127,494.750	$56,498.973	$86,268.858	$38,229.824	486.3	381.0
2040	$155,863.227	$62,484.486	$134,542.308	$58,207.628	$90,864.751	$39,311.215	490.4	383.8

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Historical and Projected Values for Key Economic Indicators for the Golden Pass Impact Area*

Date	Regional Consumer Price Index	Gross Product Deflator	Population	Industrial Production Index	Labor Productivity	Retail Sales	Real Retail Sales
2001	91.3	83.5	574.9	48.3	$79,433	N/A	N/A
2002	92.1	82.7	574.3	57.5	$86,888	$7,223.219	$7,844.133
2003	94.4	87.0	574.6	69.9	$95,744	$7,409.110	$7,849.088
2004	96.6	89.4	575.8	87.6	$107,864	$8,022.229	$8,300.655
2005	100.0	100.0	576.5	100.0	$116,339	$6,949.635	$6,949.635
2006	102.9	107.2	566.1	87.8	$107,858	$7,612.723	$7,401.180
2007	104.6	112.3	570.3	76.7	$98,364	$9,493.169	$9,072.966
2008	108.7	114.7	573.8	62.9	$90,867	$9,484.691	$8,728.010
2009	108.5	110.1	576.5	64.9	$94,489	$7,265.395	$6,697.068
2010	109.8	115.5	581.5	65.5	$95,807	$7,114.139	$6,477.495
2011	113.3	118.1	585.8	68.8	$98,104	$7,543.077	$6,659.452
2012	116.1	121.2	590.3	72.1	$100,402	$8,016.206	$6,903.767
2013	118.9	124.5	594.3	75.5	$102,611	$8,536.830	$7,176.982
2014	122.0	128.0	598.1	78.7	$104,674	$9,113.370	$7,471.009
2015	125.1	131.6	601.8	81.7	$106,663	$9,723.466	$7,773.137
2016	128.3	135.3	605.5	84.8	$108,658	$10,368.667	$8,083.381
2017	131.5	139.0	609.2	87.8	$110,688	$11,050.567	$8,401.745
2018	134.9	142.9	612.8	90.9	$112,752	$11,770.799	$8,728.218
2019	138.3	146.8	616.4	94.1	$114,853	$12,531.039	$9,062.778
2020	141.8	150.8	619.9	97.3	$116,976	$13,333.003	$9,405.389
2021	145.3	154.9	623.5	100.6	$119,118	$14,178.446	$9,756.002
2022	149.0	159.0	627.0	104.0	$121,277	$15,069.160	$10,114.552
2023	152.7	163.3	630.4	107.4	$123,454	$16,006.973	$10,480.961
2024	156.6	167.6	633.8	110.9	$125,649	$16,993.747	$10,855.135
2025	160.5	172.0	637.2	114.5	$127,860	$18,031.375	$11,236.965
2026	164.5	176.6	640.5	118.1	$130,088	$19,121.779	$11,626.326
2027	168.6	181.2	643.8	121.7	$132,332	$20,266.909	$12,023.077
2028	172.8	185.9	647.1	125.4	$134,593	$21,468.737	$12,427.061
2029	177.0	190.6	650.3	129.2	$136,870	$22,729.257	$12,838.105
2030	181.4	195.5	653.5	133.0	$139,163	$24,050.479	$13,256.017
2031	185.9	200.5	656.7	136.9	$141,471	$25,434.429	$13,680.592
2032	190.5	205.5	659.8	140.8	$143,791	$26,883.141	$14,111.604
2033	195.2	210.7	662.8	144.8	$146,125	$28,398.656	$14,548.813
2034	200.0	215.9	665.8	148.8	$148,472	$29,983.017	$14,991.959
2035	204.9	221.3	668.8	152.8	$150,831	$31,638.263	$15,440.769
2036	209.9	226.7	671.7	156.9	$153,202	$33,366.426	$15,894.948
2037	215.0	232.3	674.6	161.0	$155,584	$35,169.526	$16,354.187
2038	220.3	237.9	677.4	165.1	$157,978	$37,049.563	$16,818.160
2039	225.7	243.6	680.2	169.3	$160,383	$39,008.517	$17,286.525
2040	231.1	249.4	682.9	173.5	$162,799	$41,048.335	$17,758.921

*** GROSS AREA PRODUCT - Millions of Dollars; REAL GROSS AREA PRODUCT - Millions of 2005 Dollars; PERSONAL INCOME (By place of residence and wo Dollars; REAL PERSONAL INCOME (By place of residence and work) - Millions of 2005 Dollars; EMPLOYMENT - Thousands of Persons; TEXAS CONSUMER I 2005=100; GROSS PRODUCT DEFLATOR - 2005=100; POPULATION - Thousands of Persons; INDUSTRIAL PRODUCTION INDEX - 2005=100; LABOR PRODUCT Dollars per Employee; RETAIL SALES - Millions of Dollars; REAL RETAIL SALES - Millions of 2005 Dollars; Retail Sales in Louisiana Parishes is defined to con definitions maintained by the Texas Comptroller of Public Accounts to preserve consistency.**

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Historical and Projected Values for Key Economic Indicators for the Golden Pass Impact Area**

Date	Gross Area Product	Real Gross Area Product	Personal Income (by place of residence)	Real Personal Income (by place of residence)	Personal Income (by place of work)	Real Personal Income (by place of work)	Total Employment	Wage and Salary Employment
2002	7.4	8.4	3.0	2.2	3.5	2.6	0.4	-0.9
2003	15.4	9.7	2.5	0.0	3.1	0.6	0.4	-0.5
2004	14.6	11.5	2.3	-0.1	2.5	0.1	-0.2	-1.0
2005	21.9	9.0	8.1	4.5	6.3	2.7	1.7	1.1
2006	1.8	-5.0	7.7	4.7	9.1	6.1	3.1	2.4
2007	-2.3	-6.7	7.3	5.5	4.3	2.5	2.9	2.3
2008	-4.5	-6.4	8.4	4.4	8.0	4.0	1.2	1.3
2009	-3.6	0.4	-1.3	-1.2	-3.4	-3.2	-2.6	-3.5
2010	5.3	0.4	4.1	2.9	3.1	1.8	-0.6	-1.0
2011	6.7	4.4	6.1	2.9	5.5	2.3	1.9	1.9
2012	7.1	4.3	6.3	3.7	6.0	3.4	2.0	1.9
2013	7.2	4.4	6.8	4.3	6.6	4.1	2.2	2.1
2014	7.1	4.2	7.1	4.4	6.9	4.2	2.2	2.1
2015	6.8	3.9	7.0	4.3	6.8	4.1	2.1	2.0
2016	6.7	3.8	6.9	4.3	6.7	4.1	1.9	1.9
2017	6.5	3.6	6.9	4.2	6.7	4.0	1.8	1.7
2018	6.4	3.5	6.8	4.2	6.6	4.0	1.7	1.6
2019	6.3	3.5	6.8	4.1	6.6	3.9	1.7	1.6
2020	6.2	3.4	6.7	4.1	6.5	3.9	1.6	1.5
2021	6.2	3.4	6.6	4.0	6.4	3.8	1.6	1.5
2022	6.1	3.3	6.6	4.0	6.4	3.8	1.6	1.5
2023	6.0	3.2	6.5	3.9	6.3	3.7	1.5	1.4
2024	5.9	3.2	6.5	3.9	6.3	3.7	1.5	1.4
2025	5.9	3.1	6.4	3.8	6.2	3.6	1.5	1.3
2026	5.8	3.1	6.3	3.8	6.1	3.6	1.4	1.3
2027	5.7	3.0	6.3	3.7	6.1	3.5	1.4	1.3
2028	5.6	3.0	6.2	3.7	6.0	3.5	1.3	1.2
2029	5.6	2.9	6.2	3.6	6.0	3.4	1.3	1.2
2030	5.5	2.8	6.1	3.5	5.9	3.4	1.3	1.2
2031	5.4	2.8	6.1	3.5	5.9	3.3	1.2	1.1
2032	5.3	2.7	6.0	3.4	5.8	3.2	1.2	1.1
2033	5.2	2.7	5.9	3.4	5.7	3.2	1.1	1.0
2034	5.2	2.6	5.9	3.3	5.7	3.1	1.1	1.0
2035	5.1	2.6	5.8	3.3	5.6	3.1	1.1	1.0
2036	5.0	2.5	5.8	3.2	5.6	3.0	1.0	0.9
2037	4.9	2.4	5.7	3.2	5.5	3.0	1.0	0.9
2038	4.9	2.4	5.6	3.1	5.4	2.9	0.9	0.8
2039	4.8	2.3	5.6	3.1	5.4	2.9	0.9	0.8
2040	4.7	2.3	5.5	3.0	5.3	2.8	0.9	0.7

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Historical and Projected Values for Key Economic Indicators for the Golden Pass Impact Area**

Date	Regional Consumer Price Index	Gross Product Deflator	Population	Industrial Production Index	Labor Productivity	Retail Sales	Real Retail Sales
2002	0.9	-0.9	-0.1	19.0	9.4	N/A	N/A
2003	2.5	5.2	0.0	21.6	10.2	2.6	0.1
2004	2.4	2.8	0.2	25.3	12.7	8.3	5.8
2005	3.5	11.8	0.1	14.2	7.9	-13.4	-16.3
2006	2.9	7.2	-1.8	-12.2	-7.3	9.5	6.5
2007	1.7	4.8	0.7	-12.7	-8.8	24.7	22.6
2008	3.9	2.1	0.6	-17.9	-7.6	-0.1	-3.8
2009	-0.2	-4.0	0.5	3.2	4.0	-23.4	-23.3
2010	1.2	4.9	0.9	0.9	1.4	-2.1	-3.3
2011	3.1	2.2	0.7	5.0	2.4	6.0	2.8
2012	2.5	2.7	0.8	4.8	2.3	6.3	3.7
2013	2.4	2.7	0.7	4.6	2.2	6.5	4.0
2014	2.6	2.8	0.6	4.3	2.0	6.8	4.1
2015	2.5	2.8	0.6	3.9	1.9	6.7	4.0
2016	2.5	2.8	0.6	3.7	1.9	6.6	4.0
2017	2.5	2.8	0.6	3.6	1.9	6.6	3.9
2018	2.5	2.8	0.6	3.5	1.9	6.5	3.9
2019	2.5	2.7	0.6	3.5	1.9	6.5	3.8
2020	2.5	2.7	0.6	3.4	1.8	6.4	3.8
2021	2.5	2.7	0.6	3.4	1.8	6.3	3.7
2022	2.5	2.7	0.6	3.3	1.8	6.3	3.7
2023	2.5	2.7	0.6	3.3	1.8	6.2	3.6
2024	2.5	2.7	0.5	3.2	1.8	6.2	3.6
2025	2.5	2.6	0.5	3.2	1.8	6.1	3.5
2026	2.5	2.6	0.5	3.1	1.7	6.0	3.5
2027	2.5	2.6	0.5	3.1	1.7	6.0	3.4
2028	2.5	2.6	0.5	3.1	1.7	5.9	3.4
2029	2.5	2.6	0.5	3.0	1.7	5.9	3.3
2030	2.5	2.6	0.5	3.0	1.7	5.8	3.3
2031	2.5	2.5	0.5	2.9	1.7	5.8	3.2
2032	2.5	2.5	0.5	2.9	1.6	5.7	3.2
2033	2.5	2.5	0.5	2.8	1.6	5.6	3.1
2034	2.5	2.5	0.5	2.8	1.6	5.6	3.0
2035	2.5	2.5	0.4	2.7	1.6	5.5	3.0
2036	2.4	2.5	0.4	2.7	1.6	5.5	2.9
2037	2.4	2.4	0.4	2.6	1.6	5.4	2.9
2038	2.4	2.4	0.4	2.6	1.5	5.3	2.8
2039	2.4	2.4	0.4	2.5	1.5	5.3	2.8
2040	2.4	2.4	0.4	2.5	1.5	5.2	2.7

**Percent Change

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Historical and Projected Values for Key Measures of Per Capita Economic Performance for the Golden Pass Impact Area

Date	Per Capita Gross Area Product*	Per Capita Real Gross Area Product*	Per Capita Personal Income (by place of residence)*	Per Capita Real Personal Income (by place of residence)*	Per Capita Retail Sales*	Per Capita Real Retail Sales*
2001	$29.445	$35.272	$24.877	$27.246	N/A	N/A
2002	$31.645	$38.255	$25.659	$27.864	$12.577	$13.658
2003	$36.490	$41.933	$26.299	$27.861	$12.895	$13.661
2004	$41.740	$46.673	$26.857	$27.789	$13.933	$14.417
2005	$50.808	$50.808	$29.002	$29.002	$12.054	$12.054
2006	$52.688	$49.135	$31.810	$30.926	$13.447	$13.073
2007	$51.120	$45.502	$33.876	$32.376	$16.645	$15.908
2008	$48.533	$42.325	$36.490	$33.579	$16.528	$15.210
2009	$46.553	$42.282	$35.833	$33.030	$12.603	$11.617
2010	$48.598	$42.088	$36.997	$33.686	$12.235	$11.140
2011	$51.472	$43.597	$38.961	$34.397	$12.876	$11.368
2012	$54.696	$45.130	$41.120	$35.414	$13.580	$11.696
2013	$58.261	$46.787	$43.618	$36.670	$14.365	$12.076
2014	$62.011	$48.439	$46.399	$38.038	$15.237	$12.491
2015	$65.838	$50.025	$49.339	$39.443	$16.157	$12.916
2016	$69.792	$51.591	$52.441	$40.883	$17.124	$13.350
2017	$73.885	$53.139	$55.711	$42.357	$18.141	$13.792
2018	$78.146	$54.694	$59.158	$43.867	$19.209	$14.244
2019	$82.583	$56.258	$62.789	$45.411	$20.330	$14.703
2020	$87.221	$57.844	$66.612	$46.990	$21.507	$15.172
2021	$92.063	$59.447	$70.635	$48.603	$22.742	$15.648
2022	$97.116	$61.068	$74.866	$50.251	$24.036	$16.133
2023	$102.383	$62.705	$79.314	$51.933	$25.392	$16.626
2024	$107.871	$64.356	$83.986	$53.648	$26.811	$17.126
2025	$113.582	$66.020	$88.893	$55.397	$28.298	$17.635
2026	$119.521	$67.696	$94.042	$57.179	$29.852	$18.151
2027	$125.693	$69.383	$99.444	$58.994	$31.478	$18.674
2028	$132.102	$71.079	$105.107	$60.840	$33.176	$19.204
2029	$138.750	$72.782	$111.040	$62.719	$34.950	$19.741
2030	$145.641	$74.491	$117.254	$64.628	$36.802	$20.284
2031	$152.778	$76.205	$123.759	$66.567	$38.733	$20.834
2032	$160.160	$77.920	$130.563	$68.536	$40.747	$21.389
2033	$167.791	$79.636	$137.677	$70.533	$42.846	$21.950
2034	$175.672	$81.349	$145.112	$72.558	$45.032	$22.517
2035	$183.804	$83.060	$152.876	$74.610	$47.307	$23.088
2036	$192.188	$84.765	$160.982	$76.688	$49.675	$23.664
2037	$200.824	$86.464	$169.438	$78.790	$52.136	$24.244
2038	$209.711	$88.153	$178.255	$80.917	$54.694	$24.828
2039	$218.849	$89.832	$187.444	$83.065	$57.351	$25.415
2040	$228.236	$91.498	$197.015	$85.235	$60.109	$26.005

*** PER CAPITA GROSS AREA PRODUCT - Dollars per Person; PER CAPITA REAL GROSS AREA PRODUCT - 2005 Dollars per Person; PER CAPITA PERSONAL INCOME (By place of residence) - Dollars per Person; PER CAPITA REAL PERSONAL INCOME (By place of residence) - 2005 Dollars per Person; PER CAPITA RETAIL SALES - Dollars per Person; PER CAPITA REAL RETAIL SALES - 2005 Dollars per Person; Retail Sales in Louisiana Parishes is defined to conform to the definitions maintained by the Texas Comptroller of Public Accounts to preserve consistency.**

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Historical and Projected Values for Key Measures of Per Capita Economic Performance for the Golden Pass Impact Area

Date	Per Capita Gross Area Product**	Per Capita Real Gross Area Product**	Per Capita Personal Income (by place of residence)**	Per Capita Real Personal Income (by place of residence)**	Per Capita Retail Sales**	Per Capita Real Retail Sales**
2002	7.5	8.5	3.1	2.3	N/A	N/A
2003	15.3	9.6	2.5	(0.0)	2.5	0.0
2004	14.4	11.3	2.1	(0.3)	8.1	5.5
2005	21.7	8.9	8.0	4.4	(13.5)	(16.4)
2006	3.7	(3.3)	9.7	6.6	11.6	8.5
2007	(3.0)	(7.4)	6.5	4.7	23.8	21.7
2008	(5.1)	(7.0)	7.7	3.7	(0.7)	(4.4)
2009	(4.1)	(0.1)	(1.8)	(1.6)	(23.8)	(23.6)
2010	4.4	(0.5)	3.2	2.0	(2.9)	(4.1)
2011	5.9	3.6	5.3	2.1	5.2	2.0
2012	6.3	3.5	5.5	3.0	5.5	2.9
2013	6.5	3.7	6.1	3.5	5.8	3.3
2014	6.4	3.5	6.4	3.7	6.1	3.4
2015	6.2	3.3	6.3	3.7	6.0	3.4
2016	6.0	3.1	6.3	3.7	6.0	3.4
2017	5.9	3.0	6.2	3.6	5.9	3.3
2018	5.8	2.9	6.2	3.6	5.9	3.3
2019	5.7	2.9	6.1	3.5	5.8	3.2
2020	5.6	2.8	6.1	3.5	5.8	3.2
2021	5.6	2.8	6.0	3.4	5.7	3.1
2022	5.5	2.7	6.0	3.4	5.7	3.1
2023	5.4	2.7	5.9	3.3	5.6	3.1
2024	5.4	2.6	5.9	3.3	5.6	3.0
2025	5.3	2.6	5.8	3.3	5.5	3.0
2026	5.2	2.5	5.8	3.2	5.5	2.9
2027	5.2	2.5	5.7	3.2	5.4	2.9
2028	5.1	2.4	5.7	3.1	5.4	2.8
2029	5.0	2.4	5.6	3.1	5.3	2.8
2030	5.0	2.3	5.6	3.0	5.3	2.8
2031	4.9	2.3	5.5	3.0	5.2	2.7
2032	4.8	2.3	5.5	3.0	5.2	2.7
2033	4.8	2.2	5.4	2.9	5.2	2.6
2034	4.7	2.2	5.4	2.9	5.1	2.6
2035	4.6	2.1	5.4	2.8	5.1	2.5
2036	4.6	2.1	5.3	2.8	5.0	2.5
2037	4.5	2.0	5.3	2.7	5.0	2.5
2038	4.4	2.0	5.2	2.7	4.9	2.4
2039	4.4	1.9	5.2	2.7	4.9	2.4
2040	4.3	1.9	5.1	2.6	4.8	2.3

**Percent Change

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Golden Pass Impact Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	$58.602	$439.169	$1,286.015	$4,814.985	$641.490	$4,173.495	$1,831.030	$1,021.611
2002	$50.321	$301.682	$1,266.330	$5,643.338	$645.421	$4,997.917	$1,959.793	$1,131.755
2003	$62.040	$281.134	$1,276.992	$7,900.956	$721.544	$7,179.412	$2,000.325	$1,330.433
2004	$80.759	$346.173	$1,216.355	$10,546.490	$927.698	$9,618.792	$2,117.354	$1,433.740
2005	$83.316	$460.549	$1,374.801	$14,753.626	$985.984	$13,767.643	$2,196.054	$1,558.238
2006	$107.688	$510.265	$1,692.814	$14,507.535	$1,095.029	$13,412.506	$2,455.036	$1,229.954
2007	$102.305	$638.129	$1,844.605	$13,173.304	$1,305.439	$11,867.865	$2,609.903	$1,266.675
2008	$100.098	$753.803	$2,330.212	$10,682.211	$1,299.347	$9,382.863	$2,625.775	$1,323.709
2009	$107.371	$550.969	$2,090.331	$9,990.713	$1,175.198	$8,815.515	$2,712.319	$1,249.709
2010	$105.904	$712.368	$1,877.651	$10,997.711	$1,211.214	$9,786.496	$2,698.024	$1,290.360
2011	$105.237	$861.366	$2,024.728	$11,779.405	$1,303.065	$10,476.340	$2,846.082	$1,344.250
2012	$109.337	$936.738	$2,163.509	$12,704.981	$1,390.490	$11,314.491	$3,013.058	$1,408.139
2013	$113.927	$1,010.469	$2,313.010	$13,659.466	$1,479.216	$12,180.251	$3,210.265	$1,497.608
2014	$119.109	$1,092.392	$2,467.809	$14,629.698	$1,566.000	$13,063.697	$3,432.273	$1,594.409
2015	$124.477	$1,180.539	$2,627.779	$15,602.614	$1,652.628	$13,949.986	$3,662.428	$1,692.675
2016	$130.036	$1,266.537	$2,788.670	$16,621.357	$1,739.539	$14,881.818	$3,901.837	$1,792.193
2017	$135.789	$1,352.766	$2,952.494	$17,695.200	$1,827.619	$15,867.581	$4,136.738	$1,891.873
2018	$141.741	$1,443.023	$3,120.160	$18,823.993	$1,914.209	$16,909.784	$4,377.959	$1,993.744
2019	$147.895	$1,537.339	$3,288.570	$20,014.178	$2,003.164	$18,011.014	$4,625.275	$2,099.883
2020	$154.255	$1,635.733	$3,464.342	$21,269.107	$2,095.178	$19,173.929	$4,882.564	$2,210.391
2021	$160.824	$1,738.206	$3,647.983	$22,591.554	$2,190.294	$20,401.260	$5,149.948	$2,325.363
2022	$167.608	$1,844.748	$3,839.666	$23,984.365	$2,288.554	$21,695.810	$5,427.532	$2,444.894
2023	$174.608	$1,955.327	$4,039.512	$25,450.449	$2,389.997	$23,060.452	$5,715.397	$2,569.073
2024	$181.829	$2,069.898	$4,247.834	$26,992.782	$2,494.656	$24,498.125	$6,013.607	$2,697.986
2025	$189.274	$2,188.396	$4,464.724	$28,614.400	$2,602.565	$26,011.835	$6,322.200	$2,831.717
2026	$196.946	$2,310.737	$4,690.506	$30,318.401	$2,713.751	$27,604.650	$6,641.191	$2,970.340
2027	$204.847	$2,436.817	$4,925.368	$32,107.935	$2,828.238	$29,279.698	$6,970.570	$3,113.929
2028	$212.982	$2,566.513	$5,169.825	$33,986.209	$2,946.045	$31,040.163	$7,310.301	$3,262.549
2029	$221.352	$2,699.681	$5,423.801	$35,956.475	$3,067.190	$32,889.285	$7,660.317	$3,416.261
2030	$229.961	$2,836.156	$5,687.736	$38,022.031	$3,191.682	$34,830.350	$8,020.526	$3,575.116
2031	$238.810	$2,975.753	$5,961.125	$40,186.216	$3,319.527	$36,866.689	$8,390.804	$3,739.163
2032	$247.901	$3,118.265	$6,243.426	$42,452.403	$3,450.729	$39,001.674	$8,770.995	$3,908.442
2033	$257.238	$3,263.465	$6,534.668	$44,823.994	$3,585.281	$41,238.713	$9,160.914	$4,082.984
2034	$266.820	$3,411.104	$6,834.864	$47,304.415	$3,723.176	$43,581.239	$9,560.339	$4,262.813
2035	$276.651	$3,560.912	$7,144.012	$49,897.110	$3,864.399	$46,032.712	$9,969.019	$4,447.944
2036	$286.731	$3,712.595	$7,462.087	$52,605.358	$4,008.927	$48,596.431	$10,386.668	$4,638.398
2037	$297.061	$3,865.836	$7,789.046	$55,432.405	$4,156.733	$51,275.673	$10,812.963	$4,834.188
2038	$307.644	$4,020.301	$8,124.827	$58,381.455	$4,307.782	$54,073.673	$11,247.551	$5,035.323
2039	$318.479	$4,175.636	$8,469.345	$61,455.655	$4,462.033	$56,993.621	$11,690.041	$5,241.802
2040	$329.568	$4,331.468	$8,822.495	$64,658.087	$4,619.439	$60,038.647	$12,140.006	$5,453.620

*Millions of Dollars

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Golden Pass Impact Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	$528.579	$1,093.397	$3,988.500	$1,865.215	$16,927.103
2002	$611.049	$1,135.483	$4,110.139	$1,964.978	$18,174.867
2003	$571.530	$1,231.252	$4,274.098	$2,037.591	$20,966.351
2004	$633.353	$1,181.065	$4,376.818	$2,100.214	$24,032.320
2005	$669.517	$1,157.770	$4,811.763	$2,226.677	$29,292.310
2006	$632.227	$1,326.739	$5,088.307	$2,277.642	$29,828.208
2007	$606.930	$1,475.265	$5,139.801	$2,297.772	$29,154.690
2008	$649.491	$1,581.373	$5,414.932	$2,388.295	$27,849.899
2009	$608.562	$1,730.921	$5,294.252	$2,501.767	$26,836.915
2010	$604.038	$1,777.841	$5,479.392	$2,714.954	$28,258.244
2011	$614.843	$1,851.111	$5,922.990	$2,803.648	$30,153.660
2012	$639.922	$1,954.659	$6,435.980	$2,919.916	$32,286.239
2013	$675.234	$2,079.212	$6,993.455	$3,071.921	$34,624.567
2014	$715.450	$2,205.336	$7,573.382	$3,258.460	$37,088.316
2015	$760.179	$2,333.629	$8,189.089	$3,448.449	$39,621.857
2016	$805.470	$2,467.587	$8,838.014	$3,647.661	$42,259.362
2017	$852.599	$2,607.333	$9,526.654	$3,856.420	$45,007.866
2018	$901.575	$2,752.986	$10,256.348	$4,075.054	$47,886.582
2019	$952.403	$2,904.655	$11,028.380	$4,303.895	$50,902.472
2020	$1,005.082	$3,062.444	$11,843.969	$4,543.276	$54,071.161
2021	$1,059.604	$3,226.447	$12,704.263	$4,793.532	$57,397.726
2022	$1,115.958	$3,396.752	$13,610.318	$5,055.000	$60,886.840
2023	$1,174.123	$3,573.435	$14,563.095	$5,328.019	$64,543.038
2024	$1,234.074	$3,756.561	$15,563.444	$5,612.926	$68,370.942
2025	$1,295.777	$3,946.187	$16,612.092	$5,910.059	$72,374.825
2026	$1,359.193	$4,142.353	$17,709.633	$6,219.754	$76,559.053
2027	$1,424.274	$4,345.093	$18,856.514	$6,542.344	$80,927.691
2028	$1,490.965	$4,554.421	$20,053.024	$6,878.160	$85,484.948
2029	$1,559.205	$4,770.343	$21,299.280	$7,227.530	$90,234.244
2030	$1,628.922	$4,992.845	$22,595.221	$7,590.776	$95,179.290
2031	$1,700.040	$5,221.903	$23,940.591	$7,968.213	$100,322.619
2032	$1,772.472	$5,457.473	$25,334.932	$8,360.153	$105,666.463
2033	$1,846.125	$5,699.496	$26,777.574	$8,766.898	$111,213.354
2034	$1,920.898	$5,947.897	$28,267.624	$9,188.741	$116,965.515
2035	$1,996.682	$6,202.581	$29,803.961	$9,625.965	$122,924.837
2036	$2,073.362	$6,463.437	$31,385.227	$10,078.844	$129,092.706
2037	$2,150.815	$6,730.335	$33,009.824	$10,547.639	$135,470.114
2038	$2,228.913	$7,003.126	$34,675.905	$11,032.597	$142,057.642
2039	$2,307.519	$7,281.640	$36,381.374	$11,533.953	$148,855.443
2040	$2,386.491	$7,565.689	$38,123.880	$12,051.923	$155,863.227

*Millions of Dollars

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Golden Pass Impact Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-14.1	-31.3	-1.5	17.2	0.6	19.8	7.0	10.8
2003	23.3	-6.8	0.8	40.0	11.8	43.6	2.1	17.6
2004	30.2	23.1	-4.7	33.5	28.6	34.0	5.9	7.8
2005	3.2	33.0	13.0	39.9	6.3	43.1	3.7	8.7
2006	29.3	10.8	23.1	-1.7	11.1	-2.6	11.8	-21.1
2007	-5.0	25.1	9.0	-9.2	19.2	-11.5	6.3	3.0
2008	-2.2	18.1	26.3	-18.9	-0.5	-20.9	0.6	4.5
2009	7.3	-26.9	-10.3	-6.5	-9.6	-6.0	3.3	-5.6
2010	-1.4	29.3	-10.2	10.1	3.1	11.0	-0.5	3.3
2011	-0.6	20.9	7.8	7.1	7.6	7.0	5.5	4.2
2012	3.9	8.8	6.9	7.9	6.7	8.0	5.9	4.8
2013	4.2	7.9	6.9	7.5	6.4	7.7	6.5	6.4
2014	4.5	8.1	6.7	7.1	5.9	7.3	6.9	6.5
2015	4.5	8.1	6.5	6.7	5.5	6.8	6.7	6.2
2016	4.5	7.3	6.1	6.5	5.3	6.7	6.5	5.9
2017	4.4	6.8	5.9	6.5	5.1	6.6	6.0	5.6
2018	4.4	6.7	5.7	6.4	4.7	6.6	5.8	5.4
2019	4.3	6.5	5.4	6.3	4.6	6.5	5.6	5.3
2020	4.3	6.4	5.3	6.3	4.6	6.5	5.6	5.3
2021	4.3	6.3	5.3	6.2	4.5	6.4	5.5	5.2
2022	4.2	6.1	5.3	6.2	4.5	6.3	5.4	5.1
2023	4.2	6.0	5.2	6.1	4.4	6.3	5.3	5.1
2024	4.1	5.9	5.2	6.1	4.4	6.2	5.2	5.0
2025	4.1	5.7	5.1	6.0	4.3	6.2	5.1	5.0
2026	4.1	5.6	5.1	6.0	4.3	6.1	5.0	4.9
2027	4.0	5.5	5.0	5.9	4.2	6.1	5.0	4.8
2028	4.0	5.3	5.0	5.8	4.2	6.0	4.9	4.8
2029	3.9	5.2	4.9	5.8	4.1	6.0	4.8	4.7
2030	3.9	5.1	4.9	5.7	4.1	5.9	4.7	4.6
2031	3.8	4.9	4.8	5.7	4.0	5.8	4.6	4.6
2032	3.8	4.8	4.7	5.6	4.0	5.8	4.5	4.5
2033	3.8	4.7	4.7	5.6	3.9	5.7	4.4	4.5
2034	3.7	4.5	4.6	5.5	3.8	5.7	4.4	4.4
2035	3.7	4.4	4.5	5.5	3.8	5.6	4.3	4.3
2036	3.6	4.3	4.5	5.4	3.7	5.6	4.2	4.3
2037	3.6	4.1	4.4	5.4	3.7	5.5	4.1	4.2
2038	3.6	4.0	4.3	5.3	3.6	5.5	4.0	4.2
2039	3.5	3.9	4.2	5.3	3.6	5.4	3.9	4.1
2040	3.5	3.7	4.2	5.2	3.5	5.3	3.8	4.0

*Percent Change

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Historical and Projected Values for Nominal Gross Product by Major Industrial Classification for the Golden Pass Impact Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	15.6	3.8	3.0	5.3	7.4
2003	-6.5	8.4	4.0	3.7	15.4
2004	10.8	-4.1	2.4	3.1	14.6
2005	5.7	-2.0	9.9	6.0	21.9
2006	-5.6	14.6	5.7	2.3	1.8
2007	-4.0	11.2	1.0	0.9	-2.3
2008	7.0	7.2	5.4	3.9	-4.5
2009	-6.3	9.5	-2.2	4.8	-3.6
2010	-0.7	2.7	3.5	8.5	5.3
2011	1.8	4.1	8.1	3.3	6.7
2012	4.1	5.6	8.7	4.1	7.1
2013	5.5	6.4	8.7	5.2	7.2
2014	6.0	6.1	8.3	6.1	7.1
2015	6.3	5.8	8.1	5.8	6.8
2016	6.0	5.7	7.9	5.8	6.7
2017	5.9	5.7	7.8	5.7	6.5
2018	5.7	5.6	7.7	5.7	6.4
2019	5.6	5.5	7.5	5.6	6.3
2020	5.5	5.4	7.4	5.6	6.2
2021	5.4	5.4	7.3	5.5	6.2
2022	5.3	5.3	7.1	5.5	6.1
2023	5.2	5.2	7.0	5.4	6.0
2024	5.1	5.1	6.9	5.3	5.9
2025	5.0	5.0	6.7	5.3	5.9
2026	4.9	5.0	6.6	5.2	5.8
2027	4.8	4.9	6.5	5.2	5.7
2028	4.7	4.8	6.3	5.1	5.6
2029	4.6	4.7	6.2	5.1	5.6
2030	4.5	4.7	6.1	5.0	5.5
2031	4.4	4.6	6.0	5.0	5.4
2032	4.3	4.5	5.8	4.9	5.3
2033	4.2	4.4	5.7	4.9	5.2
2034	4.1	4.4	5.6	4.8	5.2
2035	3.9	4.3	5.4	4.8	5.1
2036	3.8	4.2	5.3	4.7	5.0
2037	3.7	4.1	5.2	4.7	4.9
2038	3.6	4.1	5.0	4.6	4.9
2039	3.5	4.0	4.9	4.5	4.8
2040	3.4	3.9	4.8	4.5	4.7

*Percent Change

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Golden Pass Impact Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	$59.371	$1,015.652	$1,678.507	$6,013.517	$679.756	$5,333.761	$1,975.820	$1,077.061
2002	$54.018	$775.874	$1,582.887	$7,677.862	$682.850	$6,995.012	$2,111.738	$1,189.567
2003	$62.712	$494.163	$1,533.102	$9,855.071	$765.346	$9,089.725	$2,132.269	$1,379.541
2004	$73.087	$518.272	$1,359.799	$12,716.117	$955.897	$11,760.219	$2,196.235	$1,458.235
2005	$83.316	$460.549	$1,374.801	$14,753.626	$985.984	$13,767.643	$2,196.054	$1,558.238
2006	$111.375	$438.758	$1,544.195	$13,141.743	$1,076.660	$12,065.084	$2,392.545	$1,146.032
2007	$85.918	$516.170	$1,579.853	$11,176.519	$1,269.944	$9,906.575	$2,535.375	$1,163.764
2008	$82.182	$480.181	$1,983.694	$8,861.551	$1,239.865	$7,621.686	$2,508.884	$1,209.354
2009	$108.028	$641.141	$1,746.625	$9,193.761	$1,073.966	$8,119.795	$2,617.967	$1,052.565
2010	$115.671	$659.234	$1,591.739	$9,244.552	$1,127.834	$8,116.718	$2,619.870	$1,078.763
2011	$115.764	$763.139	$1,691.419	$9,667.014	$1,220.437	$8,446.578	$2,734.469	$1,106.753
2012	$118.870	$801.123	$1,764.127	$10,154.483	$1,298.109	$8,856.374	$2,842.227	$1,140.141
2013	$119.890	$835.325	$1,836.546	$10,627.260	$1,370.203	$9,257.056	$2,965.728	$1,193.507
2014	$122.382	$870.213	$1,903.363	$11,077.968	$1,437.224	$9,640.744	$3,104.707	$1,249.520
2015	$124.882	$905.812	$1,965.029	$11,501.186	$1,503.993	$9,997.193	$3,240.542	$1,303.938
2016	$127.388	$933.375	$2,022.367	$11,927.756	$1,570.446	$10,357.310	$3,377.893	$1,358.356
2017	$129.899	$959.175	$2,077.064	$12,363.041	$1,637.510	$10,725.532	$3,502.103	$1,410.957
2018	$132.414	$986.342	$2,129.818	$12,803.194	$1,701.374	$11,101.820	$3,627.554	$1,463.370
2019	$134.930	$1,013.406	$2,178.526	$13,254.279	$1,768.167	$11,486.112	$3,751.792	$1,517.088
2020	$137.446	$1,040.319	$2,227.928	$13,715.462	$1,837.131	$11,878.331	$3,878.623	$1,571.948
2021	$139.960	$1,067.030	$2,278.016	$14,186.399	$1,908.013	$12,278.386	$4,007.217	$1,627.934
2022	$142.470	$1,093.487	$2,328.734	$14,667.001	$1,980.827	$12,686.174	$4,137.466	$1,685.026
2023	$144.975	$1,119.638	$2,379.999	$15,157.164	$2,055.588	$13,101.576	$4,269.259	$1,743.199
2024	$147.472	$1,145.430	$2,431.846	$15,656.768	$2,132.307	$13,524.460	$4,402.475	$1,802.431
2025	$149.960	$1,170.810	$2,484.177	$16,165.674	$2,210.995	$13,954.679	$4,536.988	$1,862.693
2026	$152.437	$1,195.725	$2,537.034	$16,683.728	$2,291.659	$14,392.070	$4,672.667	$1,923.954
2027	$154.900	$1,220.121	$2,590.375	$17,210.760	$2,374.304	$14,836.456	$4,809.372	$1,986.183
2028	$157.348	$1,243.945	$2,644.333	$17,746.580	$2,458.935	$15,287.645	$4,946.960	$2,049.344
2029	$159.779	$1,267.147	$2,698.731	$18,290.981	$2,545.552	$15,745.429	$5,085.278	$2,113.398
2030	$162.191	$1,289.672	$2,753.656	$18,843.741	$2,634.154	$16,209.586	$5,224.172	$2,178.305
2031	$164.582	$1,311.471	$2,808.742	$19,404.616	$2,724.738	$16,679.878	$5,363.479	$2,244.023
2032	$166.950	$1,332.493	$2,863.643	$19,973.346	$2,817.296	$17,156.051	$5,503.032	$2,310.504
2033	$169.292	$1,352.689	$2,918.306	$20,549.654	$2,911.820	$17,637.835	$5,642.661	$2,377.701
2034	$171.608	$1,372.013	$2,972.675	$21,133.244	$3,008.298	$18,124.946	$5,782.188	$2,445.562
2035	$173.895	$1,390.417	$3,026.698	$21,723.801	$3,106.715	$18,617.086	$5,921.434	$2,514.033
2036	$176.150	$1,407.859	$3,080.317	$22,320.993	$3,207.054	$19,113.938	$6,060.214	$2,583.060
2037	$178.372	$1,424.295	$3,133.478	$22,924.469	$3,309.295	$19,615.174	$6,198.340	$2,652.582
2038	$180.560	$1,439.686	$3,186.124	$23,533.863	$3,413.414	$20,120.449	$6,335.622	$2,722.540
2039	$182.710	$1,453.993	$3,238.200	$24,148.789	$3,519.385	$20,629.404	$6,471.866	$2,792.869
2040	$184.822	$1,467.182	$3,289.647	$24,768.844	$3,627.179	$21,141.665	$6,606.875	$2,863.505

*Millions of 2005 Dollars

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Golden Pass Impact Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	$496.336	$1,221.808	$4,510.510	$2,228.468	$20,277.050
2002	$576.583	$1,228.990	$4,515.717	$2,258.300	$21,971.536
2003	$542.617	$1,294.329	$4,574.828	$2,225.088	$24,093.721
2004	$614.578	$1,208.185	$4,528.253	$2,200.035	$26,872.796
2005	$669.517	$1,157.770	$4,811.763	$2,226.677	$29,292.310
2006	$642.315	$1,299.985	$4,920.279	$2,179.341	$27,816.569
2007	$619.533	$1,418.886	$4,756.005	$2,098.995	$25,951.018
2008	$672.400	$1,477.385	$4,902.352	$2,109.716	$24,287.700
2009	$628.885	$1,603.365	$4,634.918	$2,148.021	$24,375.277
2010	$632.511	$1,623.880	$4,709.508	$2,197.057	$24,472.787
2011	$650.250	$1,662.097	$4,955.883	$2,193.510	$25,540.298
2012	$674.290	$1,710.438	$5,219.801	$2,214.186	$26,639.686
2013	$706.300	$1,777.487	$5,490.610	$2,252.621	$27,805.273
2014	$743.321	$1,838.386	$5,753.530	$2,307.734	$28,971.124
2015	$784.405	$1,897.500	$6,023.675	$2,358.877	$30,105.847
2016	$824.628	$1,958.371	$6,296.099	$2,411.961	$31,238.195
2017	$866.581	$2,020.014	$6,575.536	$2,465.437	$32,369.808
2018	$909.959	$2,082.380	$6,861.110	$2,519.278	$33,515.419
2019	$954.764	$2,145.418	$7,152.554	$2,573.457	$34,676.215
2020	$1,000.994	$2,209.072	$7,449.575	$2,627.947	$35,859.316
2021	$1,048.645	$2,273.287	$7,751.852	$2,682.718	$37,063.058
2022	$1,097.709	$2,338.001	$8,059.033	$2,737.740	$38,286.668
2023	$1,148.172	$2,403.154	$8,370.744	$2,792.982	$39,529.287
2024	$1,200.020	$2,468.678	$8,686.577	$2,848.413	$40,790.110
2025	$1,253.232	$2,534.508	$9,006.103	$2,903.999	$42,068.144
2026	$1,307.783	$2,600.573	$9,328.863	$2,959.709	$43,362.473
2027	$1,363.645	$2,666.802	$9,654.374	$3,015.507	$44,672.039
2028	$1,420.786	$2,733.119	$9,982.126	$3,071.360	$45,995.901
2029	$1,479.167	$2,799.449	$10,311.589	$3,127.230	$47,332.749
2030	$1,538.748	$2,865.714	$10,642.206	$3,183.084	$48,681.488
2031	$1,599.480	$2,931.834	$10,973.403	$3,238.883	$50,040.512
2032	$1,661.315	$2,997.726	$11,304.584	$3,294.590	$51,408.183
2033	$1,724.195	$3,063.309	$11,635.134	$3,350.167	$52,783.109
2034	$1,788.061	$3,128.498	$11,964.424	$3,405.577	$54,163.849
2035	$1,852.847	$3,193.208	$12,291.807	$3,460.779	$55,548.919
2036	$1,918.485	$3,257.351	$12,616.627	$3,515.735	$56,936.790
2037	$1,984.900	$3,320.842	$12,938.214	$3,570.405	$58,325.899
2038	$2,052.014	$3,383.593	$13,255.894	$3,624.749	$59,714.644
2039	$2,119.744	$3,445.515	$13,568.981	$3,678.726	$61,101.393
2040	$2,188.003	$3,506.521	$13,876.791	$3,732.297	$62,484.486

*Millions of 2005 Dollars

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Golden Pass Impact Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-9.0	-23.6	-5.7	27.7	0.5	31.1	6.9	10.4
2003	16.1	-36.3	-3.1	28.4	12.1	29.9	1.0	16.0
2004	16.5	4.9	-11.3	29.0	24.9	29.4	3.0	5.7
2005	14.0	-11.1	1.1	16.0	3.1	17.1	0.0	6.9
2006	33.7	-4.7	12.3	-10.9	9.2	-12.4	8.9	-26.5
2007	-22.9	17.6	2.3	-15.0	18.0	-17.9	6.0	1.5
2008	-4.3	-7.0	25.6	-20.7	-2.4	-23.1	-1.0	3.9
2009	31.5	33.5	-12.0	3.7	-13.4	6.5	4.3	-13.0
2010	7.1	2.8	-8.9	0.6	5.0	0.0	0.1	2.5
2011	0.1	15.8	6.3	4.6	8.2	4.1	4.4	2.6
2012	2.7	5.0	4.3	5.0	6.4	4.9	3.9	3.0
2013	0.9	4.3	4.1	4.7	5.6	4.5	4.3	4.7
2014	2.1	4.2	3.6	4.2	4.9	4.1	4.7	4.7
2015	2.0	4.1	3.2	3.8	4.6	3.7	4.4	4.4
2016	2.0	3.0	2.9	3.7	4.4	3.6	4.2	4.2
2017	2.0	2.8	2.7	3.6	4.3	3.6	3.7	3.9
2018	1.9	2.8	2.5	3.6	3.9	3.5	3.6	3.7
2019	1.9	2.7	2.3	3.5	3.9	3.5	3.4	3.7
2020	1.9	2.7	2.3	3.5	3.9	3.4	3.4	3.6
2021	1.8	2.6	2.2	3.4	3.9	3.4	3.3	3.6
2022	1.8	2.5	2.2	3.4	3.8	3.3	3.3	3.5
2023	1.8	2.4	2.2	3.3	3.8	3.3	3.2	3.5
2024	1.7	2.3	2.2	3.3	3.7	3.2	3.1	3.4
2025	1.7	2.2	2.2	3.3	3.7	3.2	3.1	3.3
2026	1.7	2.1	2.1	3.2	3.6	3.1	3.0	3.3
2027	1.6	2.0	2.1	3.2	3.6	3.1	2.9	3.2
2028	1.6	2.0	2.1	3.1	3.6	3.0	2.9	3.2
2029	1.5	1.9	2.1	3.1	3.5	3.0	2.8	3.1
2030	1.5	1.8	2.0	3.0	3.5	2.9	2.7	3.1
2031	1.5	1.7	2.0	3.0	3.4	2.9	2.7	3.0
2032	1.4	1.6	2.0	2.9	3.4	2.9	2.6	3.0
2033	1.4	1.5	1.9	2.9	3.4	2.8	2.5	2.9
2034	1.4	1.4	1.9	2.8	3.3	2.8	2.5	2.9
2035	1.3	1.3	1.8	2.8	3.3	2.7	2.4	2.8
2036	1.3	1.3	1.8	2.7	3.2	2.7	2.3	2.7
2037	1.3	1.2	1.7	2.7	3.2	2.6	2.3	2.7
2038	1.2	1.1	1.7	2.7	3.1	2.6	2.2	2.6
2039	1.2	1.0	1.6	2.6	3.1	2.5	2.2	2.6
2040	1.2	0.9	1.6	2.6	3.1	2.5	2.1	2.5

*Percent Change

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Historical and Projected Values for Real Gross Product by Major Industrial Classification for the Golden Pass Impact Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	16.2	0.6	0.1	1.3	8.4
2003	-5.9	5.3	1.3	-1.5	9.7
2004	13.3	-6.7	-1.0	-1.1	11.5
2005	8.9	-4.2	6.3	1.2	9.0
2006	-4.1	12.3	2.3	-2.1	-5.0
2007	-3.5	9.1	-3.3	-3.7	-6.7
2008	8.5	4.1	3.1	0.5	-6.4
2009	-6.5	8.5	-5.5	1.8	0.4
2010	0.6	1.3	1.6	2.3	0.4
2011	2.8	2.4	5.2	-0.2	4.4
2012	3.7	2.9	5.3	0.9	4.3
2013	4.7	3.9	5.2	1.7	4.4
2014	5.2	3.4	4.8	2.4	4.2
2015	5.5	3.2	4.7	2.2	3.9
2016	5.1	3.2	4.5	2.3	3.8
2017	5.1	3.1	4.4	2.2	3.6
2018	5.0	3.1	4.3	2.2	3.5
2019	4.9	3.0	4.2	2.2	3.5
2020	4.8	3.0	4.2	2.1	3.4
2021	4.8	2.9	4.1	2.1	3.4
2022	4.7	2.8	4.0	2.1	3.3
2023	4.6	2.8	3.9	2.0	3.2
2024	4.5	2.7	3.8	2.0	3.2
2025	4.4	2.7	3.7	2.0	3.1
2026	4.4	2.6	3.6	1.9	3.1
2027	4.3	2.5	3.5	1.9	3.0
2028	4.2	2.5	3.4	1.9	3.0
2029	4.1	2.4	3.3	1.8	2.9
2030	4.0	2.4	3.2	1.8	2.8
2031	3.9	2.3	3.1	1.8	2.8
2032	3.9	2.2	3.0	1.7	2.7
2033	3.8	2.2	2.9	1.7	2.7
2034	3.7	2.1	2.8	1.7	2.6
2035	3.6	2.1	2.7	1.6	2.6
2036	3.5	2.0	2.6	1.6	2.5
2037	3.5	1.9	2.5	1.6	2.4
2038	3.4	1.9	2.5	1.5	2.4
2039	3.3	1.8	2.4	1.5	2.3
2040	3.2	1.8	2.3	1.5	2.3

*Percent Change

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Golden Pass Impact Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2001	0.9	1.7	26.6	32.7	10.1	22.6	38.8	9.6
2002	0.7	2.0	24.3	30.6	9.4	21.2	38.7	9.6
2003	0.7	1.8	23.6	29.0	8.7	20.3	38.8	10.7
2004	0.7	2.0	21.7	28.4	9.0	19.4	38.9	10.7
2005	0.7	2.4	22.5	28.4	8.9	19.5	38.3	10.9
2006	0.7	2.5	24.9	30.2	10.8	19.4	40.0	10.7
2007	0.8	2.8	26.3	32.0	13.0	19.0	40.6	10.6
2008	0.8	2.9	29.1	31.9	12.6	19.4	40.4	10.4
2009	0.8	2.5	26.5	29.2	10.6	18.6	40.0	9.2
2010	0.8	2.4	24.3	28.8	10.4	18.4	39.3	9.0
2011	0.8	2.8	25.5	29.1	10.7	18.4	40.0	9.0
2012	0.8	2.9	26.4	29.4	10.9	18.5	40.7	9.0
2013	0.8	2.9	27.1	29.8	11.1	18.7	41.5	9.2
2014	0.8	2.9	27.7	30.1	11.3	18.8	42.5	9.4
2015	0.8	3.0	28.3	30.3	11.4	18.9	43.4	9.6
2016	0.8	3.0	28.8	30.6	11.5	19.0	44.3	9.7
2017	0.8	3.0	29.2	30.7	11.7	19.1	45.1	9.9
2018	0.8	3.0	29.6	30.9	11.7	19.2	45.8	10.0
2019	0.8	3.0	29.9	31.1	11.8	19.2	46.4	10.1
2020	0.8	3.0	30.2	31.2	11.9	19.3	47.0	10.2
2021	0.8	3.0	30.5	31.4	12.0	19.4	47.7	10.3
2022	0.8	3.0	30.9	31.5	12.1	19.5	48.3	10.5
2023	0.8	3.0	31.2	31.7	12.1	19.5	48.9	10.6
2024	0.8	3.0	31.5	31.8	12.2	19.6	49.5	10.7
2025	0.8	3.0	31.8	32.0	12.3	19.7	50.1	10.8
2026	0.8	3.0	32.1	32.1	12.4	19.7	50.7	10.9
2027	0.8	3.0	32.4	32.2	12.4	19.8	51.3	11.0
2028	0.8	3.0	32.7	32.4	12.5	19.9	51.8	11.1
2029	0.8	3.0	33.0	32.5	12.6	19.9	52.4	11.2
2030	0.8	2.9	33.3	32.6	12.6	20.0	53.0	11.3
2031	0.8	2.9	33.6	32.7	12.7	20.0	53.5	11.5
2032	0.8	2.9	33.9	32.8	12.8	20.1	54.0	11.6
2033	0.8	2.9	34.2	33.0	12.8	20.1	54.5	11.7
2034	0.8	2.9	34.5	33.1	12.9	20.2	55.0	11.8
2035	0.8	2.8	34.8	33.2	12.9	20.2	55.5	11.9
2036	0.8	2.8	35.1	33.3	13.0	20.3	56.0	12.0
2037	0.8	2.8	35.4	33.4	13.0	20.3	56.4	12.0
2038	0.8	2.7	35.7	33.5	13.1	20.4	56.9	12.1
2039	0.8	2.7	35.9	33.6	13.1	20.4	57.3	12.2
2040	0.7	2.7	36.2	33.6	13.2	20.5	57.7	12.3

*Thousands of Persons

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Golden Pass Impact Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2001	4.8	9.3	88.2	42.8	255.3
2002	4.5	9.4	90.2	42.9	252.9
2003	4.2	9.5	90.4	42.9	251.6
2004	4.1	9.2	91.1	42.5	249.1
2005	4.0	9.0	93.1	42.4	251.8
2006	3.7	9.2	93.9	42.0	257.9
2007	3.4	9.5	96.1	41.7	263.8
2008	3.3	9.3	96.7	42.5	267.3
2009	2.9	9.0	94.3	43.5	258.0
2010	2.9	9.0	94.9	44.1	255.4
2011	2.9	9.0	97.7	43.5	260.3
2012	2.9	9.1	100.9	43.3	265.3
2013	2.9	9.3	104.1	43.4	271.0
2014	3.0	9.4	107.0	43.9	276.8
2015	3.0	9.5	110.0	44.3	282.3
2016	3.1	9.6	112.8	44.8	287.5
2017	3.2	9.7	115.7	45.2	292.4
2018	3.2	9.8	118.6	45.6	297.2
2019	3.3	9.9	121.4	46.0	301.9
2020	3.3	10.1	124.3	46.4	306.6
2021	3.4	10.2	127.1	46.8	311.1
2022	3.4	10.3	129.9	47.2	315.7
2023	3.5	10.4	132.7	47.6	320.2
2024	3.6	10.4	135.4	47.9	324.6
2025	3.6	10.5	138.1	48.3	329.0
2026	3.7	10.6	140.8	48.7	333.3
2027	3.7	10.7	143.4	49.1	337.6
2028	3.8	10.8	145.9	49.4	341.7
2029	3.8	10.9	148.5	49.8	345.8
2030	3.9	11.0	150.9	50.1	349.8
2031	3.9	11.0	153.3	50.5	353.7
2032	4.0	11.1	155.6	50.8	357.5
2033	4.0	11.2	157.9	51.1	361.2
2034	4.1	11.3	160.1	51.4	364.8
2035	4.1	11.3	162.2	51.8	368.3
2036	4.1	11.4	164.2	52.1	371.6
2037	4.2	11.4	166.1	52.4	374.9
2038	4.2	11.5	168.0	52.7	378.0
2039	4.3	11.5	169.7	52.9	381.0
2040	4.3	11.6	171.4	53.2	383.8

*Thousands of Persons

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Golden Pass Impact Area*

Date	Agriculture	Mining	Construction	Total Mfg.	Durable Mfg.	Nondurable Mfg.	Total Trade	Transportation, Warehousing, and Utilities
2002	-17.9	15.0	-8.6	-6.5	-7.4	-6.1	-0.1	0.5
2003	-4.5	-8.6	-2.8	-5.1	-6.6	-4.5	0.3	10.9
2004	2.5	11.1	-8.3	-2.3	2.5	-4.3	0.2	-0.1
2005	1.8	18.2	3.7	0.2	-0.8	0.6	-1.6	2.3
2006	1.1	7.0	10.9	6.2	21.2	-0.6	4.4	-1.8
2007	4.8	11.1	5.6	6.0	20.7	-2.2	1.6	-0.9
2008	1.5	4.0	10.6	-0.2	-3.5	2.0	-0.5	-2.3
2009	2.1	-12.9	-9.2	-8.5	-15.5	-3.9	-1.0	-11.8
2010	1.2	-4.3	-8.1	-1.4	-1.5	-1.3	-1.9	-2.2
2011	-2.5	14.5	5.0	1.2	2.7	0.3	1.9	0.1
2012	0.4	2.9	3.2	1.1	1.6	0.8	1.7	0.7
2013	0.1	1.4	2.8	1.2	1.8	0.9	2.0	2.1
2014	0.1	1.3	2.4	1.0	1.5	0.7	2.4	2.0
2015	0.1	1.3	2.0	0.8	1.4	0.5	2.2	1.8
2016	0.1	0.7	1.7	0.7	1.2	0.4	2.1	1.6
2017	0.0	0.3	1.5	0.6	1.0	0.4	1.7	1.4
2018	0.0	0.2	1.3	0.5	0.8	0.4	1.5	1.2
2019	0.0	0.2	1.1	0.5	0.7	0.4	1.4	1.2
2020	0.0	0.1	1.1	0.5	0.7	0.4	1.4	1.2
2021	-0.1	0.0	1.1	0.5	0.7	0.4	1.3	1.1
2022	-0.1	0.0	1.0	0.5	0.6	0.4	1.3	1.1
2023	-0.1	-0.1	1.0	0.5	0.6	0.4	1.3	1.1
2024	-0.1	-0.2	1.0	0.5	0.6	0.3	1.2	1.1
2025	-0.2	-0.2	1.0	0.4	0.6	0.3	1.2	1.1
2026	-0.2	-0.3	1.0	0.4	0.6	0.3	1.2	1.0
2027	-0.2	-0.4	1.0	0.4	0.6	0.3	1.1	1.0
2028	-0.2	-0.4	0.9	0.4	0.6	0.3	1.1	1.0
2029	-0.3	-0.5	0.9	0.4	0.5	0.3	1.1	1.0
2030	-0.3	-0.6	0.9	0.4	0.5	0.3	1.0	0.9
2031	-0.3	-0.6	0.9	0.4	0.5	0.3	1.0	0.9
2032	-0.3	-0.7	0.9	0.4	0.5	0.3	1.0	0.9
2033	-0.4	-0.8	0.9	0.3	0.5	0.3	0.9	0.9
2034	-0.4	-0.8	0.9	0.3	0.5	0.3	0.9	0.9
2035	-0.4	-0.9	0.8	0.3	0.4	0.2	0.9	0.8
2036	-0.4	-0.9	0.8	0.3	0.4	0.2	0.8	0.8
2037	-0.5	-1.0	0.8	0.3	0.4	0.2	0.8	0.8
2038	-0.5	-1.1	0.8	0.3	0.4	0.2	0.8	0.8
2039	-0.5	-1.1	0.8	0.3	0.4	0.2	0.8	0.7
2040	-0.5	-1.2	0.8	0.3	0.4	0.2	0.7	0.7

*Percent Change

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Historical and Projected Values for Wage and Salary Employment by Major Industrial Classification for the Golden Pass Impact Area*

Date	Information	Finance, Insurance, and Real Estate	Total Services	Government	Total All Industries
2002	-4.8	0.6	2.2	0.2	-0.9
2003	-6.6	1.3	0.3	0.0	-0.5
2004	-3.1	-3.7	0.7	-0.9	-1.0
2005	-1.6	-1.5	2.3	-0.2	1.1
2006	-8.2	2.1	0.8	-0.9	2.4
2007	-8.3	2.8	2.4	-0.9	2.3
2008	-3.0	-1.9	0.6	1.9	1.3
2009	-10.5	-2.9	-2.4	2.5	-3.5
2010	-2.2	-0.7	0.6	1.4	-1.0
2011	-0.6	0.3	3.0	-1.3	1.9
2012	0.5	1.1	3.2	-0.5	1.9
2013	1.5	1.9	3.1	0.3	2.1
2014	1.8	1.4	2.8	1.2	2.1
2015	2.1	1.2	2.8	1.0	2.0
2016	1.9	1.2	2.6	0.9	1.9
2017	1.9	1.2	2.5	0.9	1.7
2018	1.8	1.1	2.5	0.9	1.6
2019	1.8	1.1	2.4	0.9	1.6
2020	1.7	1.1	2.3	0.9	1.5
2021	1.7	1.0	2.3	0.9	1.5
2022	1.7	1.0	2.2	0.8	1.5
2023	1.6	1.0	2.1	0.8	1.4
2024	1.6	0.9	2.1	0.8	1.4
2025	1.5	0.9	2.0	0.8	1.3
2026	1.5	0.9	1.9	0.8	1.3
2027	1.4	0.8	1.9	0.7	1.3
2028	1.4	0.8	1.8	0.7	1.2
2029	1.4	0.8	1.7	0.7	1.2
2030	1.3	0.7	1.7	0.7	1.2
2031	1.3	0.7	1.6	0.7	1.1
2032	1.2	0.7	1.5	0.7	1.1
2033	1.2	0.6	1.5	0.6	1.0
2034	1.1	0.6	1.4	0.6	1.0
2035	1.1	0.6	1.3	0.6	1.0
2036	1.0	0.5	1.2	0.6	0.9
2037	1.0	0.5	1.2	0.6	0.9
2038	1.0	0.5	1.1	0.6	0.8
2039	0.9	0.4	1.0	0.5	0.8
2040	0.9	0.4	1.0	0.5	0.7

*Percent Change

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