VINEYARD NORTHEAST

CONSTRUCTION AND OPERATIONS PLAN

VOLUME II APPENDIX

MARCH 2024

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VINEYARD NORTHEAST LLC

VINEYARD OFFSHORE

PUBLIC VERSION

Vineyard Northeast COP

Appendix II-S Economic Impact Analysis

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Revision	Date	Description
0	April 2023	Initial submission. Developed in response to Bureau of Ocean Energy Management (BOEM) Round 1 Comments (dated January 13, 2023).
1	November 2023	Removed reference to future New York Offshore Export Cable Corridors.
1	March 2024	Resubmitted without revisions.

ECONOMIC IMPACT ANALYSIS OF VINEYARD NORTHEAST

OCTOBER 2023

PREPARED FOR

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DISCLAIMER

The analyses supporting the results presented here involve the use of assumptions and projections with respect to conditions that may exist or events that may occur in the future. Although Daymark Energy Advisors has applied assumptions and projections that are believed to be reasonable, they are subjective and may differ from those that might be used by other economic or industry experts to perform similar analysis. In addition, actual future outcomes are dependent upon future events that are outside Daymark Energy Advisors' control. Daymark Energy Advisors cannot, and does not, accept liability under any theory for losses suffered, whether direct or consequential, arising from any reliance on this presentation, and cannot be held responsible if any conclusions drawn from this presentation should prove to be inaccurate.

I. EXECUTIVE SUMMARY

Vineyard Northeast LLC (the Proponent) proposes to develop, construct, and operate offshore renewable wind energy facilities in Bureau of Ocean Energy Management (BOEM) Lease Area OCS-A 0522 (the Lease Area) along with associated offshore and onshore transmission systems. This proposed development is referred to as Vineyard Northeast. Vineyard Northeast includes 160 total wind turbine generators (WTG) and electrical service platform (ESP) positions within the Lease Area. Up to three of those positions will be occupied by ESPs and the remaining positions will be occupied by WTGs. Two offshore export cable corridors (OECC)—the Massachusetts OECC and the Connecticut OECC—will connect the renewable wind energy facilities to onshore transmission systems in Massachusetts and Connecticut.

Daymark was retained by Vineyard Northeast LLC to quantify the range of economic benefits of this lease area development. Daymark used the IMPLAN model, described in detail in Section IV, below, to model and quantify the economic benefits of the Vineyard Northeast. This report describes that work and quantifies the benefits of Vineyard Northeast during the development, construction, and operational phases. The operational phase is assumed to have a 30-year term and benefits are reported for the Northeast region, including New England, New York, and New Jersey. Other benefits are expected to be realized domestically outside of the Northeast region. However, those are not captured in this report.

A. Vineyard Northeast expenditures

Below is a breakdown of the total expenditures Vineyard Northeast LLC is planning to make on Vineyard Northeast. When presenting results in this report, we refer to development and construction costs as capital costs, or CapEx, and ongoing operations costs as OpEx.

Table 1. Total investment and employment of Vineyard Northeast (millions of 2023$)

Description	Total	Total Modeled
Non-Labor Expeditures	$5,424	$5,399
Labor Expenditures	$1,952	$1,952
Total	**$7,376**	**$7,351**
Employment (FTE Years)	9,396	9,396

To quantify the economic benefits of Vineyard Northeast, Daymark modeled $7.4 billion of Northeast-based spending.

B. Economic benefits

The economic benefits estimated in this report are gross benefits, not net benefits. The results show total benefits in terms of economic output and employment resulting from the proposed investments. Most of the estimated gross benefits and employment numbers are most properly interpreted as "*supported*" impacts rather than "*created*," as detailed further in Section IV, subsection A.

Vineyard Northeast that was studied is expected to generate approximately $5.1 billion in direct benefits, approximately $2.3 billion in indirect benefits, and approximately $1.9 billion in induced benefits. The economic impact is expressed in 2023$ present value (PV). Vineyard Northeast is estimated to support approximately 9,396 job-years of direct employment, approximately 9,716 job-years of indirect employment, and approximately 13,827 job-years of induced employment.

Table 2. Total Northeast economic benefits of Vineyard Northeast (millions 2023$ PV)

Description	Total (2022 - 2061)
Direct Impact	
Employment (Job Years)	9,396
Labor Income, PV $	$1,409
Output, PV $	$5,079
Indirect Impact	
Employment (Job Years)	9,716
Labor Income, PV $	$727
Output, PV $	$2,309
Induced Impacts	
Employment (Job Years)	13,827
Labor Income, PV $	$684
Output, PV $	$1,878
Total Direct, Indirect, and Induced Impacts	
Employment (Job Years)	32,939
Labor Income, PV $	$2,820
Output, PV $	$9,265

II. INTRODUCTION

Daymark was retained by Vineyard Northeast LLC to provide an economic impact analysis of Vineyard Northeast The analysis in this report estimates the economic benefits associated with direct investments made in association with the development of the lease area during the development, construction, and operational phases of Vineyard Northeast. The analysis is designed to support the estimation of credible economic benefits consistent with the requirements of BOEM's Construction and Operations Plan (COP) requirements. This report is based on configurations and direct expenditures as assumed by Vineyard Northeast LLC.

III. VINEYARD NORTHEAST

Vineyard Northeast, proposed by Vineyard Northeast LLC, is located in federally designated Lease Areas OCS-A 0522. Vineyard Northeast consists of offshore wind energy facilities with a minimum capacity of 2,600 MW that will deliver power to eastern power markets such as ISO-NE, NYISO, and PJM. This report evaluates the economic benefits of Vineyard Northeast. This report discusses the benefits of Vineyard Northeast during the development, construction, and operations phases. The operations phase is assumed to be a 30-year operational life, beginning in 2032 and running through 2061.

Vineyard Northeast will progress through three phases. The development phase (2022-2026) includes activities such as outreach, planning, design, and permitting. Concurrently, the construction period (2026–2031) involves the manufacture, construction and installation of various structures such as wind turbines and foundations, transmission cables, as well as onshore and offshore substation facilities. The operation and maintenance phase (2032–2061) covers the operational period when Vineyard Northeast will be generating electricity. Expenditures during this period include routine monitoring, repair, and operation of the structures.

Table 3. Total expenditure of Vineyard Northeast (millions of 2023$)

Description	Total	Total Modeled
Non-Labor Expeditures	$5,424	$5,399
Labor Expenditures	$1,952	$1,952
Total	**$7,376**	**$7,351**
Employment (FTE Years)	9,396	9,396

IV. ANALYSIS METHOD

A. IMPLAN

Daymark used the IMPLAN model,[1] an input/output model developed by the IMPLAN Group, to estimate the direct and indirect economic impacts to the Northeast region resulting from the development, construction, and operation of Vineyard Northeast.

Impacts from the analysis are broken into three categories: (1) direct benefits, (2) indirect benefits, and (3) induced benefits. Direct benefits are realized directly from expenditures associated with the development, construction, and operation of Vineyard Northeast, including through the purchase of goods and services from Northeast-based businesses, direct employment in Vineyard Northeast, investment in supply chain and infrastructure development and workforce training, and other expenditures. Indirect benefits arise from the business-to-business transactions that are inherent within an industry's supply chain (for example, should a developer hire a contractor, and the contractor in turn leases a crane, that lease would be considered an indirect benefit). IMPLAN also reports induced benefits, which reflect household spending resulting from the direct investment. While induced benefits are included in this report, they are harder to track, measure, and verify, and they should therefore be viewed as less precise estimates than direct or indirect benefits.

All benefit types from IMPLAN are further broken down by category as shown in Figure 1. Intermediate Inputs are defined by IMPLAN as "purchases of non-durable goods and services such as energy, materials, and purchased services that are used for the production of other goods and services, rather than for final consumption."[2] Daymark primarily reports Output and Labor Income in this report, as well as the job-years associated with Vineyard Northeast.

[1] IMPLAN Staff, "*What is IMPLAN?,*" August 4, 2022, available at: https://blog.implan.com/what-is-implan.

[2] Clouse PhD, Candi, *"Understanding Intermediate Inputs (II),"* February 26, 2020, accessed January 10, 2023, available at: https://support.implan.com/hc/en-us/articles/360044176233-Understanding-Intermediate-Inputs-II-

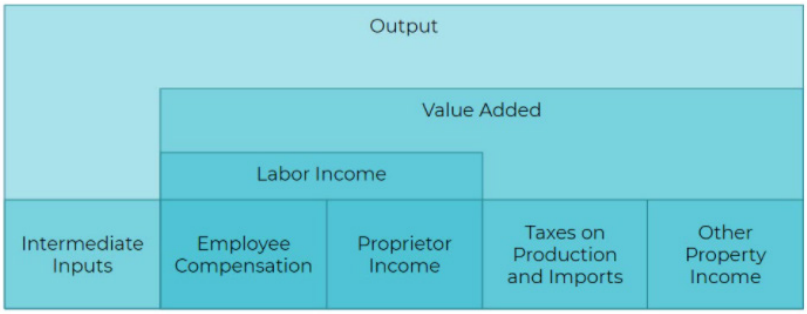

Figure 1. Components of output for a given industry[3]

The IMPLAN model reports employment output in two ways: "job-years" and "employment compensation." If a worker is employed by a company in one position for 12 months, that is considered one job-year. If the same employee holds the same position for 24 months, that is considered two job-years. Additionally, if one employee holds two positions for the same 12 months, that is considered two job-years. IMPLAN provides ratios to determine full-time equivalents (FTEs) based on these job-years. The use of FTEs makes understanding employment figures easier – a person working one year for 35 hours a week, or more, is considered one FTE, while a second individual working part-time for the same year would be considered 0.5 FTEs, depending on exact hours worked.

Vineyard Northeast provided Daymark with FTE job-year estimates. Daymark used these as inputs to the IMPLAN modeling for the majority of the spend categories based on our determination that Vineyard Northeast's estimates were more representative than the standard output from IMPLAN results. Employment compensation is simpler to understand, as it is the dollar value of the labor supported by the investment in a project.

IMPLAN, like any input/output model, considers gross benefits only, not net benefits. This complicates interpretation of results. It is difficult to determine exactly how much of the gross results are "new" jobs for example, and how much Vineyard Northeast can be supported by any existing margins or "slack" in the industry. This holds truer for indirect

[3] IMPLAN, "*Understanding Output*," September 17, 2019, accessed January 10, 2023, available at: https://implanhelp.zendesk.com/hc/en-us/articles/360035998833-Understanding-Output.

and induced benefits and employment, where the jobs and industries impacted are best described as "supported" rather than "created."[4]

For this analysis, results generated by IMPLAN are reported in 2023 dollars. To estimate present value, Daymark discounted future years at a real discount rate of 2.5%. This discount rate reflects the opportunity cost of consumption in the Northeastern region's economy since the nature of Vineyard Northeast LLC's investments and expenditures result in accrual of benefits to the entire region. This conclusion is the result of analysis using the various default spreads of a given state's rating given the risk-free rate on a 10-year treasury note.[5] The 10-year treasury note as compared to a AAA curve results in a 0.6% default spread. Using the three northeastern states of New York, New Jersey, and Massachusetts, and their respective credit ratings as proxies for the wider northeastern region, Daymark weighted the individual states' discount rates by real GDP in 2021 as measured by US Department of Commerce's Bureau of Economic Analysis. This weighted average discount rate was utilized to bring benefit results to present value 2023$.

B. Mapping to industry categories

Vineyard Northeast LLC provided Daymark with expected Northeast-specific spending by year and by category. The analysis requires defining how payments would be made, to whom they would go, and a breakdown of services, labor, and materials. Certain categories of spending such as direct reimbursement payments or real estate costs are not included in the analysis because they provide no economic benefit, despite providing a financial benefit.[6]

After receiving a detailed understanding of planned direct investment in the Northeast, Daymark mapped each investment to a North American Industry Classification System (NAICS) code. NAICS codes are detailed industry standard categories commonly understood across the fields of public policy and economics.

Daymark used the IMPLAN model for the analysis. While IMPLAN maintains its own industry categorization system, they also produce a "bridge" document that links NAICS industries directly to the appropriate IMPLAN category, as determined by IMPLAN's in-house economists.

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4 IMPLAN, "*Employment Data Details*," December 15, 2021, accessed January 10, 2023, available at: https://implanhelp.zendesk.com/hc/en-us/articles/115009510967-Employment-Data-Details.

5 New York State Moody's credit rating of Aa1, https://www.budget.ny.gov/investor/creditRatings.html.

6 Direct payments are transfers of funds from one entity to another that add no value to the economy as a whole because no products are created and no services are provided.

V. REGION-SPECIFIC COST MODEL INPUTS

Daymark conducted its analysis of Vineyard Northeast using the IMPLAN input/output model (see Section IV above). The key inputs to the model are the state-specific Vineyard Northeast expenditures for each phase (development, construction, operation). This section describes the various types of project costs during each phase.

A. Development and construction period

Vineyard Northeast LLC is planning to spend up to $363 million in the Northeast to develop the OCS-A 0522 Lease Area, with the final amounts dependent upon the exact configuration selected in various procurements. These development costs are for engineering and planning, permitting, environmental monitoring, administration, and bid development. Vineyard Northeast LLC is planning to spend $2.6 billion in the Northeast region during construction of Vineyard Northeast. These costs are for engineering and development, port upgrades, interconnection and substation upgrades, and transportation and installation of equipment. Equipment and other costs that are not being sourced specifically in the Northeast are not included in our analysis. Input categories are discussed in more detail below.

Point of Interconnection upgrades

In NYISO, ISO-NE, and PJM, new wholesale power generators are required to pay for any transmission system upgrades necessary to reliably connect a project to the grid. This cost category includes substation equipment such as transformers, breakers, relays, and grounding, and any additional materials required.

Transportation and installation

A variety of ships, barges, and ferries will be needed to transport both people and materials throughout the development, construction, and operations phases of Vineyard Northeast. Costs include expenses associated with rendering services related to crew transfer vessels (CTV), service operation vehicle (SOV), and guard vessels. Additionally, specialized vessels will be required to conduct civil works such as dredging and surveying at both the port facilities and the Vineyard Northeast site.

Design and engineering support

Engineering and other technical services make up a significant portion of domestic expenditure for Vineyard Northeast across the three phases (development, construction, and operation).

- In the development phase, engineering/technical services include permitting, environmental monitoring, and geophysical/geotechnical activities.
- In the construction phase, engineering/technical services activities are associated with installation and construction of the array cable package, export cable, electrical service platform, foundations, wind turbine generators, certification and verification, electrical design, EPC project management, and geophysical/geotechnical.
- In the operations phase, engineering services include environmental surveying and technical maintenance activities.

Other spending

Vineyard Northeast LLC's planned investments include spending on insurance, operations and maintenance (O&M) site upgrades, and other project resources. These expenditures are expected to occur in the 2023 – 2031 development and construction period.

B. Vineyard Northeast operational expenditures

Operational phase expenses for operation and maintenance are primarily composed of salaries to facility operators, spare parts, electricity consumption, and various other maintenance items. Vineyard Northeast LLC provided Daymark with domestic O&M related budgets, which we analyzed over the assumed 30-year operational period as defined by the Proponent.

Jobs that would be necessary to operate the offshore wind facility include plant operators, electrical and mechanical engineers, wind turbine technicians, as well as ship captains, engineers, and deckhands. Many of these jobs have high earning potential due to necessary education, technical training, or certification processes.

C. Direct FTE-year estimates

Vineyard Northeast LLC provided Daymark with full-time equivalent job-year (FTE-year) estimates for each budgeted package of associated investment. An initial run of the IMPLAN model was performed using only investment dollars, omitting the Vineyard-Northeast LLC-supplied FTE-year estimates to help affirm the selection of IMPLAN industry codes. The final IMPLAN modeling was done by manually substituting in Vineyard-Northeast LLC-supplied FTE-year estimates for some spending categories.

VI. ECONOMIC IMPACT

Daymark considered direct, indirect, and induced benefits estimated via IMPLAN in this economic impact analysis. Daymark presents economic impacts, both output and employment benefits, at the overall investment levels.

As discussed earlier in this report, the economic benefits estimated in this analysis are gross impacts. The results show overall benefits – both in terms of output and employment – to the economy as a result of the proposed investments. For example, the job numbers estimated in this analysis are labor necessary to complete various activities planned in each investment category. The analysis does not tell us about any net gain in economic impacts, rather, these estimates should be interpreted as supported impacts and not necessarily created impacts.

A. Vineyard Northeast overall benefits

The proposed lease area development is expected to generate approximately $5.1 billion in direct benefits, approximately $2.3 billion in indirect benefits, and approximately $1.9 billion in induced benefits in the Northeast during its development, construction, and operational phases. The economic impact is expressed in 2023$ PV. Vineyard Northeast is estimated to support approximately 9,369 job-years of direct employment, approximately 9,716 job-years of indirect employment, and approximately 13,827 job-years of induced employment. These figures assume a 30-year operation period.

Table 4 breaks down the economic impacts by the Vineyard Northeast total and during the assumed 30-year operational life.

Table 4. Northeast economic benefits of Vineyard Northeast (millions 2023$ PV)

Description	Total (2022 - 2061)	Total Development and Construction (2022 - 2031)	Total Operations and Maintenance (2032-2061)
Direct Impact			
Employment (Job Years)	9,396.1	4,656.0	4,740.2
Labor Income, PV $	1,409.0	849.8	559.2
Output, PV $	5,078.5	2,562.1	2,516.4
Indirect Impact			
Employment (Job Years)	9,716.3	4,711.6	5,004.7
Labor Income, PV $	727.0	387.2	339.7
Output, PV $	2,308.9	999.1	1,309.8
Induced Impacts			
Employment (Job Years)	13,826.8	6,526.2	7,300.6
Labor Income, PV $	684.4	396.6	287.8
Output, PV $	1,877.9	1,088.3	789.6
Total Direct, Indirect, and Induced Impacts			
Employment (Job Years)	32,939.3	15,893.8	17,045.5
Labor Income, PV $	2,820.4	1,633.6	1,186.8
Output, PV $	9,265.4	4,649.6	4,615.9

Daymark estimated federal, state, county, and municipal taxes during Vineyard Northeast's development and construction phase and during its operating and maintenance phase (Table 5). These benefits are included in the direct, indirect, and induced benefits presented in Table 4 above. Vineyard Northeast is expected to generate $1.4 billion in tax benefits to governments on a present value basis within the Northeast over Vineyard Northeast's life. This includes approximately $748 million in direct tax benefits, $318 million in indirect tax benefits, and $285 million in induced tax benefits[7]. Table 5 presents the tax benefits associated with Vineyard Northeast.

[7] Daymark did not model the sales of electricity from the generators, thus additional sales tax revenues are not included in this analysis. Further, purchase of real estate has not been modeled as discussed in Section IV.B, and therefore real estate property taxes on the development have not been assessed.

Table 5. Northeast Tax Benefits of Vineyard Northeast (millions 2023$ PV)

Description	Total (2022 - 2061)	Total Development and Construction (2022-2031)	Total Operations and Maintenance (2032-2061)
Direct Impact			
Federal Tax	$337.1	$178.8	$158.3
State Tax	$162.7	$40.4	$122.3
County Tax	$36.3	$3.6	$32.7
Municipal Tax	$212.1	$24.9	$187.2
Sub-Total	$748.2	$247.7	$500.5
Indirect Impact			
Federal Tax	$164.7	$84.7	$80.0
State Tax	$65.7	$26.1	$39.7
County Tax	$12.6	$3.9	$8.7
Municipal Tax	$75.2	$24.0	$51.2
Sub-Total	$318.2	$138.6	$179.6
Induced Impact			
Federal Tax	$156.4	$90.6	$65.8
State Tax	$57.3	$33.2	$24.1
County Tax	$10.2	$5.9	$4.3
Municipal Tax	$61.6	$35.7	$25.9
Sub-Total	$285.4	$165.4	$120.0
Total, PV $	$1,351.9	$551.7	$800.1

B. Development and Construction period

Vineyard Northeast development and CapEx benefits

Offshore wind construction primarily includes activities such as interconnection-related upgrades, manufacture of primary components, wind turbine foundation and cable related work, and vessels related work. Table 6 presents the economic benefits of offshore wind-related construction activities.

Investment in offshore wind-related construction and development activities at Vineyard Northeast is expected to support $2.6 billion in direct benefits, $999 million in indirect benefits, and $1.1 billion in induced benefits. These benefits support 4,656 job-years of direct employment, 4,712 job-years of indirect employment, and 6,526 job-years of induced employment.

Table 6. CapEx Benefits by Year (millions 2023$ PV)

Description	Total Development and Construction (2022 - 2031)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Direct Impact											
Employment (Job Years)	4,656.0	55	82	98	203	416	602	769	751	1231	451
Labor Income, PV $	849.8	$11.6	$17.0	$19.9	$40.1	$80.4	$113.3	$141.2	$134.5	$214.9	$76.8
Output, PV $	2,562.1	$37.2	$54.5	$59.5	$119.1	$227.2	$311.4	$405.5	$368.1	$717.5	$262.0
Indirect Impact											
Employment (Job Years)	4,711.6	70	105	116	237	436	572	740	656	1230	550
Labor Income, PV $	387.2	$6.4	$9.4	$10.1	$20.3	$36.6	$48.8	$61.0	$53.1	$99.2	$42.4
Output, PV $	999.1	$14.4	$21.0	$23.4	$46.9	$87.3	$128.4	$158.4	$139.9	$270.0	$109.3
Induced Impacts											
Employment (Job Years)	6,526.2	81	122	142	294	584	828	1060	1008	1733	674
Labor Income, PV $	396.6	$5.8	$8.5	$9.6	$19.4	$37.5	$51.9	$64.8	$60.1	$100.8	$38.2
Output, PV $	1,088.3	$15.9	$23.2	$26.4	$53.1	$103.0	$142.5	$177.8	$164.9	$276.6	$104.9
Total Direct, Indirect, and Induced Impacts											
Employment (Job Years)	15,893.8	206.2	309.4	356.2	733.7	1,436.4	2,001.5	2,568.1	2,414.3	4,193.3	1,674.7
Labor Income, PV $	1,633.6	23.8	34.9	39.6	79.7	154.6	214.0	267.0	247.6	414.9	157.4
Output, PV $	4,649.6	67.5	98.8	109.3	219.2	417.5	582.2	741.7	673.0	1,264.1	476.3

C. Operations and maintenance period

Daymark estimated the economic impacts associated with the operations and maintenance phase of Vineyard Northeast. Over the course of its expected 30 years of operation, Vineyard Northeast can be expected to produce $2.5 billion in direct benefits, $1.3 billion in indirect benefits, and $790 million in induced benefits. During the same operation period, Vineyard Northeast is estimated to support 4,740 job-years of direct employment, 5,005 job-years of indirect employment, and 7,301 job-years of induced employment. See Table 7 for full results.

Table 7. OpEx Benefits Vineyard Northeast (millions 2023$ PV)

Description	Total (2022 - 2061)	Total Operations and Maintenance (2032-2061)
Direct Impact		
Employment (Job Years)	9,396.1	4,740.2
Labor Income, PV $	1,409.0	559.2
Output, PV $	5,078.5	2,516.4
Indirect Impact		
Employment (Job Years)	9,716.3	5,004.7
Labor Income, PV $	727.0	339.7
Output, PV $	2,308.9	1,309.8
Induced Impacts		
Employment (Job Years)	13,826.8	7,300.6
Labor Income, PV $	684.4	287.8
Output, PV $	1,877.9	789.6
Total Direct, Indirect, and Induced Impacts		
Employment (Job Years)	32,939.3	17,045.5
Labor Income, PV $	2,820.4	1,186.8
Output, PV $	9,265.4	4,615.9

APPENDIX A – ANNUAL BENEFITS (MILLIONS 2023$ PV)

Description	Total (2022 - 2061)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Direct Impact											
Employment (Job Years)	9,396.1	55	82	98	203	416	602	769	751	1231	451
Labor Income, PV $	1,409.0	$11.6	$17.0	$19.9	$40.1	$80.4	$113.3	$141.2	$134.5	$214.9	$76.8
Output, PV $	5,078.5	$37.2	$54.5	$59.5	$119.1	$227.2	$311.4	$405.5	$368.1	$717.5	$262.0
Indirect Impact											
Employment (Job Years)	9,716.3	70	105	116	237	436	572	740	656	1230	550
Labor Income, PV $	727.0	$6.4	$9.4	$10.1	$20.3	$36.6	$48.8	$61.0	$53.1	$99.2	$42.4
Output, PV $	2,308.9	$14.4	$21.0	$23.4	$46.9	$87.3	$128.4	$158.4	$139.9	$270.0	$109.3
Induced Impacts											
Employment (Job Years)	13,826.8	81	122	142	294	584	828	1060	1008	1733	674
Labor Income, PV $	684.4	$5.8	$8.5	$9.6	$19.4	$37.5	$51.9	$64.8	$60.1	$100.8	$38.2
Output, PV $	1,877.9	$15.9	$23.2	$26.4	$53.1	$103.0	$142.5	$177.8	$164.9	$276.6	$104.9
Total Direct, Indirect, and Induced Impacts											
Employment (Job Years)	32,939.3	206.2	309.4	356.2	733.7	1,436.4	2,001.5	2,568.1	2,414.3	4,193.3	1,674.7
Labor Income, PV $	2,820.4	23.8	34.9	39.6	79.7	154.6	214.0	267.0	247.6	414.9	157.4
Output, PV $	9,265.4	67.5	98.8	109.3	219.2	417.5	582.2	741.7	673.0	1,264.1	476.3

Description	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Direct Impact										
Employment (Job Years)	158	158	158	158	158	158	158	158	158	158
Labor Income, PV $	$26.2	$25.5	$24.9	$24.3	$23.7	$23.1	$22.5	$22.0	$21.4	$20.9
Output, PV $	$117.7	$114.8	$112.0	$109.2	$106.5	$103.9	$101.3	$98.8	$96.4	$94.0
Indirect Impact										
Employment (Job Years)	167	167	167	167	167	167	167	167	167	167
Labor Income, PV $	$15.9	$15.5	$15.1	$14.7	$14.4	$14.0	$13.7	$13.3	$13.0	$12.7
Output, PV $	$61.3	$59.8	$58.3	$56.9	$55.5	$54.1	$52.8	$51.4	$50.2	$48.9
Induced Impacts										
Employment (Job Years)	243	243	243	243	243	243	243	243	243	243
Labor Income, PV $	$13.5	$13.1	$12.8	$12.5	$12.2	$11.9	$11.6	$11.3	$11.0	$10.8
Output, PV $	$36.9	$36.0	$35.1	$34.3	$33.4	$32.6	$31.8	$31.0	$30.2	$29.5
Total Direct, Indirect, and Induced Impacts										
Employment (Job Years)	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2
Labor Income, PV $	55.5	54.2	52.8	51.5	50.2	49.0	47.8	46.6	45.5	44.3
Output, PV $	216.0	210.6	205.4	200.4	195.4	190.6	185.9	181.3	176.8	172.5

Description	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
Direct Impact										
Employment (Job Years)	158	158	158	158	158	158	158	158	158	158
Labor Income, PV $	$20.4	$19.9	$19.4	$18.9	$18.4	$18.0	$17.5	$17.1	$16.7	$16.3
Output, PV $	$91.7	$89.4	$87.2	$85.1	$83.0	$80.9	$78.9	$77.0	$75.1	$73.2
Indirect Impact										
Employment (Job Years)	167	167	167	167	167	167	167	167	167	167
Labor Income, PV $	$12.4	$12.1	$11.8	$11.5	$11.2	$10.9	$10.7	$10.4	$10.1	$9.9
Output, PV $	$47.7	$46.6	$45.4	$44.3	$43.2	$42.1	$41.1	$40.1	$39.1	$38.1
Induced Impacts										
Employment (Job Years)	243	243	243	243	243	243	243	243	243	243
Labor Income, PV $	$10.5	$10.2	$10.0	$9.7	$9.5	$9.3	$9.0	$8.8	$8.6	$8.4
Output, PV $	$28.8	$28.1	$27.4	$26.7	$26.0	$25.4	$24.8	$24.2	$23.6	$23.0
Total Direct, Indirect, and Induced Impacts										
Employment (Job Years)	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2
Labor Income, PV $	43.2	42.2	41.1	40.1	39.1	38.2	37.2	36.3	35.4	34.5
Output, PV $	168.2	164.1	160.0	156.1	152.2	148.5	144.8	141.2	137.7	134.3

Description	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061
Direct Impact										
Employment (Job Years)	158	158	158	158	158	158	158	158	158	158
Labor Income, PV $	$15.9	$15.5	$15.1	$14.7	$14.4	$14.0	$13.7	$13.3	$13.0	$12.7
Output, PV $	$71.4	$69.7	$67.9	$66.3	$64.6	$63.0	$61.5	$60.0	$58.5	$57.0
Indirect Impact										
Employment (Job Years)	167	167	167	167	167	167	167	167	167	167
Labor Income, PV $	$9.6	$9.4	$9.2	$8.9	$8.7	$8.5	$8.3	$8.1	$7.9	$7.7
Output, PV $	$37.2	$36.3	$35.4	$34.5	$33.6	$32.8	$32.0	$31.2	$30.4	$29.7
Induced Impacts										
Employment (Job Years)	243	243	243	243	243	243	243	243	243	243
Labor Income, PV $	$8.2	$8.0	$7.8	$7.6	$7.4	$7.2	$7.0	$6.9	$6.7	$6.5
Output, PV $	$22.4	$21.9	$21.3	$20.8	$20.3	$19.8	$19.3	$18.8	$18.4	$17.9
Total Direct, Indirect, and Induced Impacts										
Employment (Job Years)	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2	568.2
Labor Income, PV $	33.7	32.9	32.0	31.3	30.5	29.7	29.0	28.3	27.6	26.9
Output, PV $	131.0	127.8	124.6	121.6	118.6	115.6	112.8	110.0	107.3	104.6