



2018-2019 Florida Job Growth Grant Fund Public Infrastructure Grant Proposal

Proposal Instructions: The Florida Job Growth Grant Fund Proposal (this document) must be completed by the governmental entity applying for the grant and signed by either the chief elected official, the administrator for the governmental entity or their designee. Please read the proposal carefully as some questions may require a separate narrative to be completed. If additional space is needed, attach a word document with your entire answer.

Governmental Entity Information

Name of Governmental Entity: City of Pensacola
Government Federal Employer Identification Number: [REDACTED]

Primary Contact Name: Keith Wilkins
Title: Assistant City Administrator
Mailing Address: 222 West Main Street
Pensacola, Florida 32502
Phone Number: 850-436-5627
Email: kwilkins@cityofpensacola.com

Secondary Contact Name: Eric Olson
Title: City Administrator
Phone Number: 850-435-1696

Public Infrastructure Grant Eligibility

Pursuant to section 228.101, F.S., the Florida Job Growth Grant Fund was created to promote economic opportunity by improving public infrastructure and enhancing workforce training. Eligible entities that wish to access this grant fund must submit public infrastructure proposals that:

- Promote economic recovery in specific regions of the state, economic diversification or economic enhancement in a targeted industry ([View Florida's Targeted Industries here](#)).
- Are not for the exclusive benefit of any single company, corporation or business entity.
- Are for infrastructure that is owned by the public and is for public use or predominately benefits the public.

1. Program Requirements:

(If additional space is needed, attach a word document with your entire answer.)

Each proposal must include the following information describing how the project satisfies eligibility requirements listed on page 1.

A. Provide a detailed description of the public infrastructure improvements.

SEE ATTACHED ADDENDUM

B. Provide location of public infrastructure, including physical address and county of project.

Pensacola International Airport, 2430 Airport Boulevard, Pensacola, Escambia County, Florida

C. Is this infrastructure currently owned by the public? Yes No

If no, is there a current option to purchase or right of way provided to the County?

D. Provide current property owner.

City of Pensacola

E. Is this infrastructure for public use or does it predominately benefit the public?

Yes No

F. Will the public infrastructure improvements be for the exclusive benefit of any single company, corporation or business entity?

Yes No

G. Provide a detailed description of, and quantitative evidence demonstrating, how the proposed public infrastructure project will promote:

- Economic recovery in specific regions of the state;
- Economic diversification; or
- Economic enhancement of a Targeted Industry ([View Florida's Targeted Industries here](#)).

- Describe how the project will promote specific job growth. Include the number of jobs that will be retained or created, and in which industry(ies) the new net jobs will be created using the North American Industry Classification System ([NAICS](#)) codes. Where applicable, you may list specific businesses that will retain or create jobs or make capital investment.

- Provide a detailed explanation of how the public infrastructure improvements will connect to a broader economic development vision for the community and benefit additional current or future businesses.

SEE ATTACHED ADDENDUM

2. Additional Information:

(If additional space is needed, attach a word document with your entire answer.)

A. Is this an expansion of an existing training program? Yes No

B. Provide the proposed commencement date and number of days required to complete construction of the public infrastructure project.

Commencement: November 2018 and completion in 1,355 days

C. What permits are necessary for the public infrastructure project?

City and State Stormwater/ERP permits, City of Pensacola Building Permits (electrical, plumbing, etc.)

- D.** Detail whether required permits have been secured, and if not, detail the timeline for securing these permits. Additionally, if any required permits are local permits, will these permits be prioritized?

All permits for existing Phase 1 MRO construction have been secured. Permits for the proposed Phases 2, 3 and 4 will be secured within 6 months of project funding.

- E.** What is the future land use and zoning designation on the proposed site of the infrastructure improvements, and will the improvements conform to those uses?

SEE ATTACHED ADDENDUM

- F.** Will an amendment to the local comprehensive plan or a development order be required on the site of the proposed project or on adjacent property to accommodate the infrastructure and potential current or future job creation opportunities? If yes, please detail the timeline.

Yes No

- G.** Is the project ready to commence upon grant fund approval and contract execution? If no, please explain.

Yes No

- H.** Does this project have a local match amount? Yes No

If yes, please describe the entity providing the match and the amount.

City of Pensacola is providing \$2,000,000 in land value for 5 acres of taxiway and apron improvements.

- I.** Provide any additional information or attachments to be considered for this proposal. Maps and other supporting documents are encouraged.

SEE ATTACHED ADDENDUM

3. Program Budget

(If additional space is needed, attach a word document with your entire answer.)

Estimated Costs and Sources of Funding: Include all applicable public infrastructure costs and other funding sources available to support the proposal.

1.) **Total Amount Requested** \$ 20,800,000
 Florida Job Growth Grant Fund

A. Other Workforce Training Project Funding Sources:

City/County \$ 2,000,000
 Private Sources \$ 0

Other (grants, etc.) \$ 18,000,000 Please Specify: FDOT Grant
Total Other Funding \$ 20,000,000

B. Public Infrastructure Project Funding Sources:

Construction \$ 28,000,000
 Reconstruction \$ 0
 Design & Engineering \$ 2,800,000
 Land Acquisition \$ 10,000,000
 Land Improvement \$ 0

Other \$ 0 Please Specify: _____
Total Project Costs \$ 40,800,000

Note: The total amount requested must equal the difference between the workforce training project costs in 3. and the other Public infrastructure project funding sources in 2.

- C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding and any other pertinent budget-related information.

SEE ATTACHED ADDENDUM

4. Approvals and Authority

(If additional space is needed, attach a word document with your entire answer.)

- A. If the governmental entity is awarded grant funds based on this proposal, what approvals must be obtained before it can execute a grant agreement with the Florida Department of Economic Opportunity (e.g., approval of a board, commission or council)?

Pensacola City Council approval

If board authorization is not required, who is authorized to sign?

- B. If approval of a board, commission, council or other group is needed prior to execution of an agreement between the governmental entity and the Florida Department of Economic Opportunity:

- i. Provide the schedule of upcoming meetings for the group for a period of at least six months.
- ii. State whether entity is willing and able to hold special meetings, and if so, upon how many days' notice.

Upcoming meetings: July 19, 2018; August 9, 2018; September 13, 2018; October 11, 2018; November 8, 2018; and December 13, 2018. Special meetings may be held on 72 hours' notice.

- C. Attach evidence that the undersigned has all necessary authority to execute this proposal on behalf of the governmental entity. This evidence may take a variety of forms, including but not limited to: a delegation of authority, citation to relevant laws or codes, policy documents, etc.

See following link to Charter of City of Pensacola, Article IV, Section 4.01 regarding powers and duties of the Mayor: <https://www.cityofpensacola.com/ArchiveCenter/ViewFile/Item/222>

I, the undersigned, do hereby certify that I have express authority to sign this proposal on behalf of the above-described entity and to the best of my knowledge, that all data and information submitted in proposal is truthful and accurate and no material fact has been omitted.

Name of Governmental Entity: City of Pensacola

Name and Title of Authorized Representative: Ashton J. Hayward, III Mayor

Representative Signature: 

Signature Date: July 2, 2018

**ADDENDUM TO 2018-2019 FLORIDA JOB GROWTH GRANT FUND PUBLIC
INFRASTRUCTURE GRANT PROPOSAL OF CITY OF PENSACOLA FOR
PENSACOLA INTERNATIONAL AIRPORT MRO EXPANSION**

1. Program Requirements:

A. Provide a detailed description of the public infrastructure improvements.

This Pensacola International Airport MRO Expansion proposal is targeted at enhancing the Aviation Industry, specifically the Maintenance, Repair and Overhaul (MRO) of aircraft, and will result in the expansion MRO capabilities at the Pensacola International Airport (“Airport”). The proposal includes the development of additional taxiways, ramp construction, and flatwork infrastructure expansion for the development of future facilities. A 173,000 square foot MRO facility at the Airport opened in June 2018, and this new infrastructure development will enhance the ability to attract additional aviation and aerospace business opportunities to the site.

G. Provide a detailed description of, and quantitative evidence demonstrating, how the proposed public infrastructure project will promote:

Economic Recovery in specific regions of the state:

While final economic impacts of the BP spill cannot be determined with accuracy, it is known that the spill directly affected specific sectors of Northwest Florida's economy and subsequent effects spread broadly across the region. Downturns in the national economy as well as active storms solidify the need for investment and job growth beyond the tourism sector.

An expanded maintenance, repair and overhaul (MRO) industry will not only create new direct economic activity but also generate indirect activity in terms of supply chain providers, customers and service providers' employees located at the Airport and the surrounding area, providing jobs and economic activity at a series of levels in the regional economy.

Proposed infrastructure investment in the aviation/ aerospace sector promotes economic diversification in the Florida panhandle. Since the Northwest Florida portion of the Gulf Coast I-10 aerospace region is part of the No. 2 state in the nation for aviation and aerospace establishments and 25% of our Economic Development Alliance's projects are aviation related, continued investment in this sector is important to the regional economy. In addition, approximately 2,400 people are separated from local military bases every year, which has the potential to provide a substantial, technically-trained workforce for both present and potential industries. Specifically, military exits in Escambia County, Florida in 2015 accounted for 167

aircraft mechanics and service technicians. To attract sector capital and keep this talent in the region, continued investment in assets supporting the aviation sector are necessary.

Economic Diversification:

The region's economy is very dependent on the military and tourism. Unfortunately, history has shown that both sectors are vulnerable to impacts that are out of our local control. Whether it is an event such as a recession, cuts in DOD spending, or a natural disaster, it is critical that the community continues to increase the number of high paying jobs in our aviation, manufacturing and IT/Cyber industries. This project firmly establishes an Aerospace Sector in the regional economy and diversifies activity in the region. Significant MRO activity will add additional dimension to the regional economy that will complement the emerging sectors of Clean Energy, Wind Turbines 200 jobs, Cyber Security 140 jobs, Financial Services 6,200, MRO activity at the Airport 1,600 jobs, and Military/Government activity. Further, the MRO activity will give military veterans a viable career path after service and a reason to remain in the region and Florida.

As has been the case in other venues around the country, the MRO activity will also provide a pathway to the middle class for thousands over the useful life of the facility (fifty years).

Economic Enhancement of a Targeted Industry:

Continuing investment in infrastructure along with an existing and future highly trained workforce can pave the way for successful aviation/aerospace locations in the State. According to the 2014, Military Transitioning Study completed by UWF Haas Center, relevant skills to continue to attract aviation investment in Florida in the following NAICS industries are as follows:

Targeted Industries Which Support Occupations in Which Separated Veterans Are Qualified:

NAICS Industry

48819 Other Support Activities for Air Transportation

33641 Aircraft and Aircraft Parts Manufacturing

33451 Search, Detection, Navigation, Guidance, Aeronautical and Nautical System and Instrument Manufacturing

54138 Testing Laboratories

54133 Engineering Services

54171 Research and Development in the Physical, Engineering and Life Sciences (Except Biotechnology)

51821 Data Processing, Hosting and Related Services

54151 Computer Systems Design Services

551114 Corporate, Subsidiary and Regional Managing Offices

In addition to retaining relevant skills to continue to attract aviation investment in Florida, the proposed infrastructure investment project will provide a pathway to continue to benefit from being within close proximity of 500+ aviation/aerospace companies and its 60,000+ employees located in Northwest Florida as well as major Original Equipment Manufacturing (OEM) facilities – Airbus, Boeing, Gulfstream and Embraer - located in the southeastern U.S. enhancing the State's place as a national leader in the aerospace/aviation sector.

Specifically, this investment will support a growth strategy over the next five years to increase the number of jobs in the following business activities by 1,325 new jobs in Aircraft Maintenance, Modification (NAICS Code 336411, \$44,720), Support Engineering, Materials Fabrication (NAICS Code 336411, \$27,700) and Administration (NAICS Code 551114, \$70,833).

According to the attached report, (Economic Impact of Proposed Expansion of Pensacola International Airport, UWF Haas Center) the economic impact of a proposed expansion at the Pensacola International Airport to support the MRO industry is as follows:

The Haas Center report was based upon the employment of 1,200 workers (versus the current estimate of 1,325 workers) in Hangars 2, 3 and 4 beginning in 2022. From that point, in addition to those jobs directly related to the new hangars, the activity at Hangars 2, 3 and 4 will support an additional 3,422 to 3,692 jobs in the state. Each year, this activity is expected to produce more than \$400 million in Personal Income and increase Florida's GDP by almost \$600 million.

Provide a detailed explanation of how the public infrastructure improvements will connect to a broader economic development vision for the community and benefit additional current or future business:

The potential for development of additional MRO facilities at the Pensacola International Airport will diversify economic development opportunities in the region, create new and high quality jobs, and will support a burgeoning Aviation industry in the state of Florida. In its 2016 survey on Aerospace Manufacturing Attractiveness, Price Waterhouse Coopers (PwC) ranked the State of Florida at number two among all states in attractiveness to the Aerospace manufacturing industry. Florida has clearly established itself as an industry leader, and particularly with recent

aviation sector investment in Pensacola. We have an opportunity to build upon and take advantage of and participate in the projected global growth of the MRO industry from total gross revenues of \$75.6 billion in 2017 to an estimated \$109.2 billion in 2027, thus benefitting our state and region.

Through a 3 - 4-year strategic expansion of our airport facilities infrastructure and establishment of the Pensacola International Airport Commerce Park, the City's partnership with the University of West Florida, Escambia County, Florida West, DEO and FDOT enabled the City to close on Phase 1 of its Maintenance, Repair and Overhaul (MRO) hangar. This project became operational in June 2018. It is a \$46,000,000 investment for the construction of a 173,000-square foot hangar facility and a commitment to create 400 jobs at an annual average QTI standard of \$41,000.

Phases 2-4 of this project propose to leverage on that success by expanding the taxiways and aprons for airlines and opening another similar MRO development site. This expansion will lay the groundwork for an additional 555,000 square feet of MRO hangars (Hangars 2-4) on 53 acres of existing airport property attracting 1,325 additional jobs in the aviation sector. When administration/engineering and other direct new jobs are included, the Airport MRO Service Center will have the capacity to create approximately 2,000 jobs, resulting in it being one of the largest, if not the largest commercial MRO facilities in the United States. Other uses of the aviation and aerospace facilities will be workforce education and training for A&P Mechanics, aviation technicians and a variety of airline offices.

The MRO Service Center will leverage workforce development through Washington High School (Aviation Maintenance Academy), George Stone Technical Center (Airframe & Power plant Technology) and Pensacola State College certification programs, in addition to transitioning veteran military personnel to commercial aviation and aerospace jobs.

2. Additional Information:

A. Applicant believes that the intended question is “Is this project an expansion of an existing infrastructure project”. The answer is “yes”.

G. What is the future land use and zoning designation of the proposed site of the infrastructure improvements, and will the improvements conform to those uses?

Zoning: Airport Restriction Zone

Sec. 12-2-11. - Airport land use district. The regulations in this section shall be applicable to the airport restricted and airport transition zoning districts: ARZ, ATZ-1 and ATZ-2.

(A) Purpose of district. The airport land use district is established for the purpose of regulating land, owned by the Pensacola Regional Airport or immediately adjacent to the airport, which is considered sensitive due to its relationship to the runways and its location within noise zones "A" and "B" as defined in Chapter 12-11 of this title. Land zoned ARZ is owned by the city and allows only open space, recreational or commercial and industrial uses customarily related to airport operations. The areas designated as airport transitional zones are permitted a range of uses.

(B) Uses permitted.

(1) ARZ, airport restricted zone (city-owned property).

(a) The following three (3) sections of the airport restricted zone are limited to specific uses as defined below:

1. ARZ-1. The parcel of land located north of Summit Boulevard between two (2) airport transition zones (includes the Scott Tennis Center and airport drainage system). Uses within this zone will be limited to those uses described below in subsections (b) and (c).

2. ARZ east of runway 8/26. The parcel of land on the eastern end of runway 8/26, located between Avenida Marina and Gaberonne Subdivision and between Spanish Trail and Scenic Highway. All land within this zone outside of the fifteen (15) acres required for clear zone at the eastern end of runway 8/26 will be retained as open space.

3. ARZ south of runway 17/35. The parcel of land at the southern end of runway 17/35, located north of Heyward Drive and east of Firestone Boulevard. All land within this zone outside of the twenty-eight and five-tenths (28.5) acres required for clear zone at the southern end of runway 17/35 will be retained as open space.

(b) Airport, airport terminal, air cargo facilities, and uses customarily related to airport operations and expansions.

(c) Golf course, tennis court, driving range, par three course, outdoor recreational facilities, provided that no such uses shall include seating or structures to accommodate more than one hundred (100) spectators or occupants.

(d) Service establishments such as auto rental and travel agencies, commercial parking lots and garages, automobile service station and similar service facilities.

(e) Warehousing and storage facilities.

(f) Industrial uses compatible with airport operations.

(g) Commercial uses to include hotels, motels, extended stay facilities, pharmacy, restaurant and drive through facilities, banks, office, post secondary education facilities, meeting

facilities, dry cleaner, health club, exercise center, martial arts facility, bakery, floral shop, day care/child care facility, medical clinic, doctor and dentist offices, and retail services to include specialty shops and studios; or other similar or compatible uses.

(h) Other uses which the city council may deem compatible with airport operations and surrounding land uses pursuant to the city's Comprehensive Plan and the Airport Master Plan and as such uses that meet the FAA's requirements for airport activities.

Future Land Use: Airport District:

The Airport Land Use District is established to regulate land owned by the Pensacola Regional Airport or immediately adjacent to the airport which is considered sensitive due to its relationship to the runways and its location within noise zones. Land owned by the City allows only open space, recreational or commercial and industrial uses customarily related to airport operations.

All uses will conform to the current zoning and future land use.

I. Provide any additional information or attachments to be considered for this proposal.

The Haas Center was engaged to assess the economic impact of a proposed expansion of the city-owned Pensacola International Airport. The proposed infrastructure project with a capital investment of \$210 million over three years would result in three new hangars totaling 555,000 square feet. These hangars (Hangar 2, Hangar 3 and Hangar 4) are in addition to Hangar 1 which opened in June 2018. Hangars 2, 3 and 4 will be used for Aircraft Maintenance, Repair and Overhaul (MRO) activities. Because the hangars will be used primarily for overhaul of aircraft rather than maintenance and repair, the activity is within the Aerospace Product and Parts Manufacturing Industry (NAICS code 3364). The full report is attached.

3. Program Budget:

A. Applicant believes that the intended request is for “Other Public Infrastructure Project Funding Sources.”

B. Applicant believes that the intended request if for “Public Infrastructure Project Costs.”

C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding and any other pertinent budget-related information.

The budget below represents a 4 year strategy to grow the airport MRO capacity beyond Phase 1 under construction now. Phases 2-4 will expand taxiway and apron capacity for airlines and open additional development sites on the airport property. Beyond Phase 1 this request is for the flat infrastructure needs for taxiways and apron parking for Phases 2 through 4. Phases 2 through 4 will provide 3 more hangars creating workspace for 1,325 new jobs in the aviation sector. Upon full buildout, the Pensacola MRO Service Center will be one of the largest commercial MRO facilities in the country.

The Project:

Hangar 2,	2021 occupancy	\$49,000,000
Hangar 3,	2022 occupancy	\$55,000,000
Hangar 4,	2022 occupancy	\$55,000,000
Warehouse & Shops,	2022 occupancy	\$19,000,000
Headquarters Offices,	2022 occupancy	\$32,000,000

The Funding:

Florida Job Growth Fund FY18/19	\$24,000,000
Florida Legislature	\$ 3,000,000
Aviation User	\$35,000,000
Local	\$16,000,000
FDOT	\$25,000,000
Federal EDA	\$13,000,000
Other Grant Sources (Triumph, Airport, EDA)	\$56,000,000
Other State Grants	\$38,125,000

Economic Impact of Proposed Expansion of Pensacola International Airport
August 31, 2017

The Haas Center was engaged to assess the economic impact of a proposed expansion of the city-owned Pensacola International Airport. The proposed infrastructure project with a capital investment of \$171 million over three years would result in three new hangars totaling 543,000 square feet. These hangars (Hangar 2, Hangar 3 and Hangar 4) are in addition to Hangar 1 which is nearing completion. Hangars 2, 3 and 4 will be used for Aircraft Maintenance, Repair and Overhaul (MRO) activities. Because the hangars will be used primarily for overhaul of aircraft rather than maintenance and repair, the activity is within the Aerospace Product and Parts Manufacturing Industry (NAICS code 3364).

Econometric Modeling Assumptions:

- The activity occurs within and the impact is measured relative to the State of Florida.
- Employment is within Aerospace Product and Parts Manufacturing (NAICS code 3364).
- Construction of Hangar 1 (already underway) will be completed and begin operation in 2018, which will employ 400 workers through at least 2031¹.
- Capital expenditures for Hangars 2, 3 and 4 will be complete by 2020.
- Hangar 2 will be operational in 2020 and will employ 400 workers through at least 2031.
- Hangars 3 and 4 will be operational in 2021 and will employ 800 workers combined through at least 2031.
- Hangars 2, 3 and 4 are substantially similar to each other and to Hangar 1.

These inputs were run through an econometric simulation model² in order to determine the impact on the state of Florida should Hangars 2, 3, and 4 proceed as outlined above. Results for the project, including the one-time impact of capital expenditures and the continuing effects of the newly created jobs, are provided below. A list of modeling assumptions, a description of the model used and definitions of terms can be found after the project results tables.

¹ 2031 is selected because it is ten years of operation after the 1,200 jobs related to Hangars 2, 3 and 4 are underway beginning in 2022.

² REMI PI+ Version 2.1.1

Table 1: Hangars 2, 3 and 4 combined Impact (543,000 square feet; 1,200 direct jobs; \$171 million in total capital investment)

	2018	2019	2020	2021	2022	2023	2024-2031 (average) ³
Total Employment (Jobs)	1,163	1,156	2,687	4,719	4,810	4,892	4,699
Gross Domestic Product (Millions of Fixed 2009 \$)	\$ 75.1	\$ 76.6	\$ 243.6	\$ 516.0	\$ 536.6	\$ 555.6	\$ 596.9
Output (Millions of Fixed 2009 \$)	\$ 119.3	\$ 121.8	\$ 434.7	\$ 965.9	\$ 1,002.0	\$ 1,034.4	\$ 1,117.9
Personal Income (Millions of Current \$)	\$ 67.2	\$ 75.0	\$ 193.4	\$ 377.3	\$ 419.5	\$ 456.1	\$ 581.5

As stated in the assumptions, Hangars 2, 3 and 4 will be employing 1,200 workers beginning in 2022. From that point, in addition to the 1,200 jobs directly related to the new hangars, the activity will support an additional 3,422 to 3,692 jobs in the state. Each year, this activity is expected to produce more than \$400 million in Personal Income and an increase in Florida’s GDP of almost \$600 million.

These values are independent of the economic activities flowing from the capital investment and employment related to Hangar 1. Therefore, these figures only represent the economic activity related to the capital investment and employment related to Hangars 2, 3 and 4.

³ 2024-2031 average annual data is presented as an average here for clarity. Full yearly data is provided below.

Table 2: Sector Level Employment

Category	2018	2019	2020	2021	2022	2023	2024-2031 (avg.)⁴
<i>Manufacturing</i>	27	27	496	1,407	1,397	1,388	1,355
<i>Retail Trade</i>	87	84	224	417	417	430	439
<i>Construction</i>	658	648	779	513	572	572	374
<i>Professional, Scientific, and Technical Services</i>	38	48	156	334	343	350	350
<i>Health Care and Social Assistance</i>	60	57	154	288	286	298	325
<i>Administrative and Waste Management Services</i>	38	38	131	281	281	285	278
<i>Accommodation and Food Services</i>	43	43	117	221	227	243	271
<i>Real Estate and Rental and Leasing</i>	33	31	87	163	166	173	172
<i>Management of Companies and Enterprises</i>	6	6	59	160	159	160	160
<i>Other Services, except Public Administration</i>	40	33	99	185	168	166	152
<i>Finance and Insurance</i>	32	28	83	160	150	147	132

REMI model

Econometric simulation models combine the sector detail and geography detail of input/output models but provide for functioning economic linkages between sectors and regions over time. The current study uses REMI PI+ Version 2.1.1 (Regional Economic Models Inc.), a structural econometric model of the state of Florida. It incorporates the basic input/output linkages, but

⁴ 2024-2031 average annual data is presented as an average here for clarity. Full yearly data is provided below.

also uses econometrically estimated county-specific parameters, for example, interregional migration in response to changes in economic opportunities, in generating impact results. Because of these between-sector linkages, the model incorporates general equilibrium tendencies as the economy responds to shocks over time. That is, changes in spending in a region affect not just conditions in that market, but also in other markets within the region (economists term this a “general equilibrium”) and outside the region (via trade and also via migration in response to changes in economic opportunities). This describes the phenomenon whereby, for example, a new manufacturing facility opens in a county, and other manufacturers and related industries may have to increase their pay or benefits in order to prevent their workers from leaving to take a job at the new facility. A traditional input-output model description of the economic impact would have held other economic factors fixed (including manufacturing wages across the county) and simply documented the employment and job creation effects resulting directly at the new manufacturing facility and indirectly via businesses in its supply chain, as well as household spending induced by the new income flows.

A simulation model such as REMI captures not only the spending effects flowing from the new manufacturing facility and its local suppliers and employees and owners, but also the spillover effects into other markets as wages and prices change due to competition for the same employees and other resources. These effects are the general equilibrium (equilibrium across all markets simultaneously) tendencies of the model. It also simulates the adjustment path over time of these market responses, using historical parameters estimated specifically for that county (the dynamic component).

Glossary of terms

Analysis of economic impact. The assessment of a change in overall economic activity that occurs as a result of a corresponding change in one or more components economic activities, such as the addition of new businesses and jobs.

Employment. Employment comprises estimates of the number of jobs, full-time plus part-time, by place of work. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included, but unpaid family workers and volunteers are not included.

Multiplier. The multiplier is the ratio of the change in equilibrium divided by the original change in spending that causes the change. Each industry that produces goods and services generates demands for other goods and services. These demands ripple through the economy, multiplying the original economic impact.

Income. Income received by persons from all sources. It includes income received from employment or investments as well as government or employer transfer payments.

Transfer payment. A payment of money for which no money, good, or service is received in exchange. Examples include social security, old age or disability pensions, student grants, unemployment compensation, etc.

Table 3: Impact Summary

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Total Employment	1,163	1,156	2,687	4,719	4,810	4,892	4,872	4,808	4,745	4,686	4,644	4,624	4,622	4,635
Gross Domestic Product (Millions of Fixed 2009\$)	\$ 75.1	\$ 76.6	\$ 243.6	\$ 516.0	\$ 536.6	\$ 555.6	\$ 566.4	\$ 572.7	\$ 578.2	\$ 584.1	\$ 591.9	\$ 601.6	\$ 612.8	\$ 625.3
Output (Millions of Fixed 2009\$)	\$ 119.3	\$ 121.8	\$ 434.7	\$ 965.9	\$ 1002.0	\$ 1034.4	\$ 1053.3	\$ 1066.7	\$ 1078.7	\$ 1092.0	\$ 1108.5	\$ 1128.5	\$ 1151.5	\$ 1176.9
Personal Income (Millions of Current \$)	\$ 67.2	\$ 75.0	\$ 193.4	\$ 377.3	\$ 419.5	\$ 456.1	\$ 484.6	\$ 508.9	\$ 531.4	\$ 553.4	\$ 576.5	\$ 601.8	\$ 628.8	\$ 658.1

Table 4: Employment by Sector

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
<i>Manufacturing</i>	27	27	496	1,407	1,397	1,388	1,378	1,369	1,362	1,356	1,350	1,345	1,342	1,339
<i>Retail Trade</i>	87	84	224	417	417	430	434	435	436	436	437	440	444	448
<i>Professional, Scientific, and Technical Services</i>	38	48	156	334	343	350	350	349	348	348	348	350	352	356
<i>Health Care and Social Assistance</i>	60	57	154	288	286	298	305	309	314	320	326	334	342	352
<i>Accommodation and Food Services</i>	43	43	117	221	227	243	253	259	265	270	274	279	283	287
<i>Administrative and Waste Management Services</i>	38	38	131	281	281	285	284	281	279	277	276	276	277	278
<i>Construction</i>	658	648	779	513	572	572	537	483	426	375	332	300	277	262
<i>Real Estate and Rental and Leasing</i>	33	31	87	163	166	173	175	174	172	171	170	171	172	173
<i>Management of Companies and Enterprises</i>	6	6	59	160	159	160	160	160	160	160	160	161	161	162
<i>Other Services, except Public Administration</i>	40	33	99	185	168	166	162	157	153	151	149	148	148	149
<i>Finance and Insurance</i>	32	28	83	160	150	147	142	137	134	131	129	128	129	129
<i>Wholesale Trade</i>	24	24	67	131	131	132	131	129	128	127	126	125	125	126
<i>Transportation and Warehousing</i>	16	15	44	88	85	82	79	75	71	69	66	65	63	63
<i>Information</i>	8	8	25	50	49	49	49	48	48	48	48	48	48	49
<i>Arts, Entertainment, and Recreation</i>	11	9	29	55	51	50	48	47	46	45	45	45	45	46
<i>Educational services; private</i>	6	6	16	30	31	32	33	33	33	33	33	33	34	34
<i>Mining</i>	2	1	6	15	16	16	16	15	14	14	13	12	12	12
<i>Utilities</i>	1	1	3	6	6	6	6	6	6	6	6	5	5	5
<i>Forestry, Fishing, and Related Activities</i>	1	1	4	8	7	7	6	6	5	5	4	4	4	4