Return-on-Investment for International Trade and Business Development Programs

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EXECUTIVE SUMMARY

Background and Purpose

Legislation enacted in 2013 and revised in 2014 directs the Office of Economic and Demographic Research (EDR) and the Office of Program Policy Analysis and Government Accountability (OPPAGA) to analyze and evaluate state economic development incentive programs on a recurring three-year schedule.[1] EDR is required to evaluate the economic benefits of each program, using project data from the most recent three-year period, and to provide an explanation of the model used in its analysis and the model's key assumptions. Economic Benefit is defined as "the direct, indirect, and induced gains in state revenues as a percentage of the state's investment" – which includes "state grants, tax exemptions, tax refunds, tax credits, and other state incentives."[2] EDR's evaluation also requires identification of jobs created, the increase or decrease in personal income, and the impact on state Gross Domestic Product (GDP) for each program.

In this report, Enterprise Florida's International Trade and Business Development Programs are under review. The review period covers Fiscal Years 2017-18, 2018-19, and 2019-20. This is EDR's third evaluation of these programs.[3]

Explanation of Return-on-Investment

For this analysis, the term "Return on Investment" (ROI) is synonymous with economic benefit and is used in lieu of the statutory term. This measure does not address issues of overall effectiveness or societal benefit; instead, it focuses on tangible financial gains or losses to state revenues.

The ROI is developed by summing state revenues generated by a program less state expenditures invested in the program, and dividing that calculation by the state's investment. It is most often used when a project is to be evaluated strictly on a monetary basis, and externalities and social costs and benefits—to the extent they exist—are excluded from the evaluation. The basic formula is:

$$\frac{\text{(Increase in State Revenue – State Investment)}}{\text{State Investment}}$$

Since EDR's Statewide Model[4] is used to develop these computations and to model the induced and indirect effects, EDR is able to simultaneously generate State Revenue and State Investment from the model so all feedback effects mirror reality. The result (a net number) is used in the final ROI calculation.

As used by EDR for this analysis, the returns can be categorized as follows:

- **Greater Than One (>1.0)**…the program more than breaks even; the return to the state produces more revenues than the total cost of the investment.

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[1] Section 288.0001, F.S. As of 2021, nineteen programs are specified.

[2] Section 288.005(1), F.S.

[3] The previous reports can be found at EDR's website: http://edr.state.fl.us/Content/returnoninvestment/

[4] See the Methodology section for a description of the Statewide Model.

- **Equal To One (=1.0)**…the program breaks even; the return to the state in additional revenues equals the total cost of the investment.
- **Less Than One, But Positive (+, <1)**…the program does not break even; however, the state generates enough revenues to recover a portion of its cost of the investment.
- **Less Than Zero (-, <0)**…the program does not recover any portion of the investment cost, and state revenues are less than they would have been in the absence of the program. This typically occurs because taxable activity is shifted to non-taxable activity.

The numerical ROI can be interpreted as return in tax revenues for each dollar spent by the state. For example, a ROI of 2.5 would mean that $2.50 in tax revenues is received back from each dollar spent by the state.

The basic formula for ROI is always calculated in the same manner, but the inputs used in the calculation can differ depending on the needs of the investor. Florida law requires the return to be measured from the state's perspective as the investor, in the form of state tax revenues. In this regard, the ROI is ultimately shaped by the state's tax code.

Florida Exports

Although Florida's export market has weakened since the first report was released in 2015, it continues to play an important role in Florida's economy. In the first report, Florida was benchmarked with commodity exports that originated from the state totaling nearly $60.5 billion during 2013.[5] This compares to only $52.0 billion of commodities during the 2016 calendar year and $56.0 billion during the 2019 calendar year.[6] While 2019 saw a 7.7 percent increase over 2016, the new level was still 7.4 percent below the 2013 level. Despite the improvement since 2016, the goods export share of Florida's total Gross Domestic Product has continued to fall—from 7.5 percent in 2013 to 5.5 percent in 2016 to 5.1 percent in 2019. Relative to 2016, the export of transportation equipment saw the largest gain, while computer & electronic products, machinery and miscellaneous manufacturers stayed about the same and chemicals fell.[7] The Miami-Fort Lauderdale-West Palm Beach Metropolitan Statistical Area was by far the State's largest export hub, ranking 8th in the nation.[8] In that same year, the International Trade Administration estimated that about 223,000 jobs were dependent on Florida's export of goods; this was relative to 225,000 in 2016 and 262,000 on 2013.[9] Most (62 percent in 2016) of the exporters were characterized as small or medium sized. As in 2016, Brazil continues to be Florida's top goods export market, followed closely by Canada.

Foreign direct investment (FDI) plays an important role in Florida's economy as well. Estimated at nearly $81 billion in 2017 and ranking Florida 7th in the nation, the value of investments in gross plant, property

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[5] For all comparisons, the final complete calendar year of each review period is used (i.e., 2013, 2016 and 2019). For example, the 2015 report reviewed state fiscal years 2011-12, 2012-13 and 2013-14 containing two full calendar years (2012 and 2013) and two partial calendar years (2011 and 2014). The benchmark was set to 2013.

[6] U.S. Census Bureau, "2019 Exports by State of the Origin of Movement, Number of Exporting Companies, and Value for Small and Medium Sized Companies."

[7] International Trade Administration, "Florida Exports and Jobs." Last accessed December 2021.

[8] https://tse.export.gov/METRO/MetroChartDisplay.aspx?ReportID=1&Referrer=SelectReports.aspx&DataSource=Metro&ReportOption=Chart

[9] International Trade Administration, "U.S. Jobs Supported by Exports of All Goods, 2019." https://www.trade.gov/data-visualization/jobs-supported-state-exports. Also see "State Economy and Trade Factsheets," https://www.trade.gov/data-visualization/state-economy-and-trade-factsheets. These estimates represent jobs supported by exports from the state, not just supported directly within the state. Last accessed December 2021.

and equipment (all affiliates) is the most commonly used metric.[10] By 2019, roughly 366,000 Florida jobs were linked to Majority-owned U.S. affiliates (MOUSAs).[11] Outside of the direct employment benefits, FDI has been linked to technological and human capital advances that benefit the economy at large.[12]

Overall Results and Conclusions

Enterprise Florida, Inc. (EFI) is a public-private partnership that serves as the principal economic development organization for Florida. EFI's International Trade & Development division exposes Florida businesses and foreign investors to opportunities, facilitating exports from and direct foreign investment in the state.

For the purposes of EDR's analysis, the services offered by the International Trade & Development division are grouped into two program areas, which are analyzed separately in order to develop two calculations of Returns-on-Investment. First, the Export Diversification and Expansion Program includes the grants, scholarships and services offered to assist Florida firms that seek to export goods and services to international markets. The assistance is primarily directed to small-to-mid-sized businesses that have little or no history in exporting. Second, the International Offices Program includes the operation of Florida's 18 international offices, which are located in 16 countries, for the purpose of recruiting foreign direct investment.

The ROI for the Export Diversification and Expansion Program is projected at 0.04. For every dollar spent on services to exporters, the state of Florida received 4 cents back in tax revenue. In addition, Florida's Real GDP increased by about $397.98 million and Real Disposable Personal Income grew by $347.95 million during the review period. The economic benefit is attributable to the $178 million in export sales that were associated with the program during this period. These sales originated from Florida businesses that received assistance.

The ROI is lower than the 2018 analysis (1.05) primarily because of a decrease in the sales reported relative to the state payments. In this regard, the average actual sales reported in 2018 was $71.49 million relative to the $59.44 million used in this analysis, while the annual average state payment remained essentially the same. Of note, total exports of Florida goods actually increased over the beginning of the period – from $54.9 billion in the 2017 calendar year to $57.3 billion in 2018 – before falling in 2019 and 2020.

The ROI for the International Offices Program is projected at 4.44. For every dollar spent on the International Offices Program, the state of Florida received 4 dollars and 44 cents back in tax revenue. In addition, the state incentive caused Florida's Real GDP to increase by $1,058 million and caused Real Disposable Personal Income to grow by $848 million during the review period. The state's economic benefit is attributable to the output and capital investment associated with the foreign firms recruited by the international offices.

In the review period, the analysis attributes $217.6 million of output and $91.8 million in capital investment to these foreign-owned firms. This economic activity generates enough taxable revenue for the ROI to be 4.44, a return that is very similar to the 2018 report. Both the levels of output and capital

[10] https://www.enterpriseflorida.com/wp-content/uploads/report-florida-international-business-highlights.pdf
[11] https://www.bea.gov/sites/default/files/2021-08/imne0821.pdf
[12] E. Borensztein, J. De Gregorio and J.W. Lee, "How Does Foreign Direct Investment Affect Economic Growth?" Journal of International Economics, Vol. 45 (1998): 115-135.

investment reported by EFI were higher than ultimately used in the analysis. EDR had to make downward adjustments to address two issues.

The first issue relates to attribution. While the international offices serve as the initial contact for interested foreign firms, potential investment opportunities are subsequently referred to EFI's Business Development division. The services of the Business Development division are outside the scope of this analysis. Consequently, EDR attributed only one-half of the economic benefit to the International Offices Program. This bifurcation of responsibilities between the two divisions masks the full value of foreign direct investment across program areas.

Second, an additional amount of output and capital investment is omitted because 25 of the 121 projects are market and resource dependent. These are projects where the business' clients are primarily based in Florida or the business is dependent on Florida's resources to produce its products or services.[13] There is no increase in economic activity associated with this foreign direct investment since the firms—or similarly situated competitors—would have been here regardless.

It is important to note the ROIs only reflect the tangible economic benefit of these programs. There are also non-tangible and long-run benefits. One purpose of the Export Diversification and Expansion Program is to transform inexperienced firms into seasoned exporters. This benefits Florida in the long-run, but is not reflected in early export sales. Similarly, the international offices serve as Florida's ambassadors across the world, provide logistical support to the Export Diversification and Expansion Program, and represent Florida at local trade shows and events. These are duties of the International Offices Program that EDR's ROI does not measure, but that are still important to Florida.

[13] See the Methodology section for details.

OVERVIEW OF FLORIDA'S INTERNATIONAL TRADE AND RESEARCH SETTING

International trade continues to play an important role in Florida's economy. In 2019, Florida exported nearly $56 billion of commodities abroad.[14] This represented about 5.1 percent of Florida's total Gross Domestic Product.[15] While reflecting a time period that only partially influenced this report, the more recent data for 2020 showed a third year of consecutive declines, dropping the commodity export level to just over $45.7 billion. However, some caution should be used in interpreting the 2020 data, since it was heavily influenced by the COVID-19 pandemic.

Table 1 lists Florida's top ten most exported products in 2020.[16] Due to Florida's geographical location, Florida is a top exporter of goods to and from Latin America. In fact, three of Florida's top international trading partners are located in South America (Brazil, Venezuela, and Columbia).[17] The Miami-Fort Lauderdale-Pompano Beach MSA is particularly well positioned to capture this trade, exporting 63.5 percent of all merchandise out of Florida in 2020.[18]

Table 1: Florida's Top Ten Most Exported Products, 2020
($ in Millions)

Rank	Description	2020 Value	% Share of FL Export Market
1	Civilian Aircraft, Engines and Parts	4,882	10.7
2	Cellular Phones	2,264	4.9
3	Electronic Processors and Controllers	1,110	2.4
4	Portable Digital Automatic Data Processing Machines	938	2.0
5	Machines for the Reception, Conversion And Transmission of Voice, Image and Data	882	1.9
6	Nitrogen and Phosphorus Fertilizers	628	1.4
7	Non-Monetary, Unfinished Gold	617	1.3
8	Engine and Parts for Civilian Aircraft	552	1.2
9	Medical and Surgical Instruments	519	1.1
10	Ammonium Phosphate	517	1.1

[14] This includes manufactured and non-manufacture commodities, and re-exports (goods imported, processed and re-exported without becoming subject to customs duties). It does not include the export of services. U.S. Census Bureau, "Origin of Movement of U.S. Exports of Goods by State by NAICS-Based Product Code Groupings, Not Seasonally Adjusted: 2020" https://www.census.gov/foreign-trade/statistics/state/origin_movement/exh2s_2012.pdf *Also see* https://www.trade.gov/data-visualization/state-economy-and-trade-factsheets For an explanation of the limitations in Origin of Movement data, see https://www.census.gov/foreign-trade/aip/elom.html For example, shipments of consolidated commodities are reported as exported from the consolidation point rather than the origin of movement. *Also see* International Trade Administration, "U.S. Jobs Supported by Exports, 2019." https://www.trade.gov/data-visualization/jobs-supported-us-exports

[15] U.S. Bureau of Economic Analysis estimated that in 2020, Florida's GDP was $1,095,888,000,000. https://fred.stlouisfed.org/series/FLNGSP

[16] U.S. Census Bureau, "Total U.S. Exports (Origin of Movement) from Florida, Top 25 6-Digit HS Commodities Based on 2020 Dollar Value" https://www.census.gov/foreign-trade/statistics/state/data/fl.html

[17] U.S. Census Bureau, "Total U.S. Exports (Origin of Movement) from Florida, Top 25 Countries Based on 2020 Dollar Value." https://www.census.gov/foreign-trade/statistics/state/data/fl.html

[18] U.S. Census Bureau, "U.S. Exports by Metropolitan Area." https://www.census.gov/foreign-trade/statistics/state/metroq12021.pdf

The International Trade Administration estimates that Florida exports of goods from the state supported over 223,000 jobs in 2019.[19] Export of manufactured goods was responsible for 93.2 percent of these jobs.[20] Moreover, wages in export-intensive industries tend to be higher than their non-exporting counterparts. In the manufacturing sector, it was estimated that exports contribute an additional 18% in workers' earnings.[21] The export-premium is seen predominately in the manufacturing industries like computers, machinery, electrical equipment, and transportation equipment.

International trade directly benefits other sectors of the economy as well. Florida's agricultural industry exported over $3.4 billion in 2019 (a 76% increase in value since 2000).[22] And while the exact percentage is unknown, the export of services is also of major importance to the state's economy.[23]

The benefits also spillover to the non-exporting sectors. For example, Florida's transportation sector gains because international trade requires trucks, distribution centers, and ports. One study estimated a significant employment impact on Florida's transportation sector from the state's exports, helping offset a general decline in the industry between 2003 and 2010.[24]

These benefits to Florida's transportation sector and Florida as a whole are evident in EDR's analysis of the Florida Department of Transportation's Work Program.[25] This report found ROIs greater than 1.0 for both the Seaports and Aviation programs during the review period running from FY 2013-14 to FY 2015-16 (1.76 and 1.37, respectively) and the forecasted Work Program for FY 2016-17 to FY 2020-21 (2.71 and 1.72, respectively). While a robust tourism sector helped the ROI for these programs, they both directly and indirectly benefit from Florida exports as well.

Florida has 15 public seaports. In a 2018 ranking of the nation's top 30 ports based on cargo volume, Miami, Port Everglades, Jacksonville, West Palm Beach and Tampa all made the list (#11, 12, 17, 21 and 27, respectively).[26] That same year, Florida seaports handled over 110 million tons of goods, with 17.9 million tons in exports.[27] Many jobs in Florida are directly tied these seaports; however, seaports also benefit related industries, such as rail and trucking.

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[19] International Trade Administration, "U.S. Jobs Supported by Exports of All Goods, 2019." https://www.trade.gov/data-visualization/jobs-supported-state-exports *Also see* "State Economy And Trade Factsheets," https://www.trade.gov/data-visualization/state-economy-and-trade-factsheets These estimates represent jobs supported by exports from the state, not just supported directly within the state.

[20] *Ibid.*

[21] David Riker, "Do Jobs in Export Industries Still Pay More? And Why?" *International Trade Administration Manufacturing and Services Economics Brief,* No. 2 July 2010: v. https://www.trade.gov/sites/default/files/2020-12/Do%20Jobs%20In%20Export%20Industries%20Still%20Pay%20More_0.pdf

[22] U.S. Agricultural Exports, Commodity Detail by State, USDA Economic Research Service (October 28, 2020). https://ers.usda.gov/data-products/state-agricultural-trade-data/

[23] While the International Trade Administration estimates the jobs supported by the service industry across the U.S., it does not publish the information by state. Nationally, it estimates that 67.6 percent of all jobs (an estimated 7.26 million of the 10.73 million jobs) supported by exports are in the service sector. International Trade Administration, "U.S. Jobs Supported by Exports, 2019." https://www.trade.gov/data-visualization/jobs-supported-us-exports

[24] David Riker, "International Trade and Local Transportation Employment" *International Trade Administration Manufacturing and Services Economics Brief,* No. 6, March 2012:3. https://www.trade.gov/sites/default/files/2020-12/International%20Trade%20and%20Local%20Transportation%20Employment.pdf

[25] The report can be found: http://edr.state.fl.us/Content/returnoninvestment/ROI_Transportation.pdf

[26] https://www.logisticsmgmt.com/article/top_30_u.s._ports_trade_tensions_determine_where_cargo_goes_next

[27] The Florida Department of Transportation, "2018 Update of the 2015 Florida Seaport System Plan" 2019: 4. https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/seaport/pdfs/2018-update-of-tables-and-figures-florida-seaport-system-plan-717752830.pdf?sfvrsn=e1879b60_2 These figures represent exports of goods produced in Florida, as well as goods originating outside the state and exported through Florida ports.

Florida's public-use airport system generates a significant amount of output and employs a large number of people on airport grounds. In 2014, the Florida Department of Transportation (FDOT) economic impact study estimated 170,000 jobs occur on airport grounds in Florida.[28] Additionally, some Florida industries are dependent on the Florida aviation system. These include air cargo operators that transport large amounts of goods to and from Florida on a daily basis. The 2014 FDOT study estimated over 52,000 jobs are linked to the air cargo industry in Florida.[29]

Florida's aviation-related businesses (aircraft maintenance, repair and production, etc.) have a significant impact on the state economy. The civilian aircrafts and parts industry was Florida's largest export business sector in 2020, with nearly $4.9 billion exported.[30] This represents about 10.7 percent of all commodities exported from Florida.[31] FDOT's 2014 economic impact study estimated aviation-related employment at over 76,000 jobs in Florida.[32]

Overview of State Export Promotion Programs

Almost all states have export promotion programs. Each state's program offers a unique array of services, but most of the programs focus on assisting small to mid-sized businesses (SMBs) to become regular exporters.[33] These programs focus on SMBs because they are less likely to be regular exporters than large-sized firms, which dominate the export market. While large-sized firms accounted for only one-third of one percent of all business establishments in the United States in 2017,[34] these firms exported 66.6 percent of all U.S. goods.[35]

There are numerous reasons why SMBs do not export or export less frequently. SMBs may be unaware of the market opportunities outside the United States or do not know how to market themselves outside the country.[36] International sales also introduce new business risks, such as foreign exchange fluctuations, tariffs, import quotas, and dealing with a foreign legal system.[37] As a general rule, managers at SMBs have less experience dealing with the complexities of exporting than managers at large-sized firms.[38] All of these issues can be successfully overcome, but an inexperienced firm may think the opposite and exaggerate the obstacles.

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[28] Florida Department of Transportation, "Florida Statewide Aviation Economic Impact Study Update," 8-2014: 5. file:///C:/Users/COOPER.DAVID/Downloads/FloridaEcon_ExecSummary_09-10-14%20(1).pdf Annual updates of this required 5-year plan do not include the specificity of the 2014 report. Transportation Planning Studies (floridatransportationplan.com)

[29] *Ibid*, 7.

[30] U.S. Census Bureau, "Total U.S. Exports (Origin of Movement) from Florida, Top 25 6-Digit HS Commodities Based on 2020 Dollar Value" https://www.census.gov/foreign-trade/statistics/state/data/fl.html

[31] *Ibid.*

[32] Florida Department of Transportation, "Florida Statewide Aviation Economic Impact Study Update," 2014: 8.

[33] The definition of small or mid-sized business varies by government program, taking into account number of employees, average annual receipts and industry classification. As defined by the U.S. Census Bureau, any business with fewer than 500 employees falls into the small to mid-sized category. *See* Footnote (4) at https://www.census.gov/foreign-trade/Press-Release/edb/2017/tab6a.pdf

[34] U.S. Census Bureau's "The Number of Firms and Establishments, Employment, Annual Payroll, and Receipts by Industry and Enterprise Employment Size: 2017" https://www.census.gov/data/tables/2017/econ/susb/2017-susb-annual.html

[35] U.S. Census Bureau's "2017 Exports by State of the Origin of Movement, Number of Exporting Companies, and Value for Small and Medium Sized Companies." https://www.census.gov/foreign-trade/Press-Release/edb/2017/tab6a.pdf

[36] A. Diamantopoulos, B.B. Schlegelmich and Ky. Katy Tse "Understanding the Role of Export Marketing Assistance: Empirical Evidence and Research Needs" *European Journal of Marketing,* Vol. 27 Iss. 4 (1993): 5-18.

[37] Stuart Cooper and Inke Nyborg, "The Financing and Information Needs of Smaller Exporters" *Bank of England Quarterly Bulletin (1998): 166-172.*

[38] June N.P. Francis and Colleen Marie Collins, "The Impact of Firms? Export Orientation on the Export Performance of High-Tech Small and Medium-Sized Enterprises" *Journal of International Marketing,* Vol. 21 Iss: 4 (2004): 474-495.

Export promotion programs typically provide services to SMBs at all stages of the export process. At the early stage, SMBs may require assistance with finding relevant trade statistics, establishing a marketing plan for its product, and identifying attractive foreign markets. Additionally, early-stage SMBs may need to reorient the manager's mindset or improve the manager's confidence about participating in the export market. At the later stages, once the SMBs have decided to export and likely know where they want to export, the firms may need assistance with finding customers. At this stage, export promotion programs assist the SMBs by sponsoring trade missions and trade shows in the foreign countries.

Research has modeled how an export promotion program can be successful.[39] Much less research has studied its real world effectiveness, with Seringhaus concluding that export-measured success may be too challenging to measure.[40] Instead, Seringhaus advocated non-tangible performance measures, with a focus on the knowledge and competence gains from users of the programs.[41] The research into non-tangible performance measures has generally shown that firms become more knowledgeable and confident about exporting after using promotion programs.[42] Whether this leads to additional exporting is open to debate.[43]

Actual empirical research on export promotion programs' impact on export sales has been mixed. Bernard and Jenson found no relationship between a state's expenditures on export promotion and the amount manufacturing exports from the state.[44] A study of Argentina's export promotion programs found a relationship between the programs and exports by SMBs.[45] A similar paper on Columbia's export subsidy program also fund an increase in exports from SMBs.[46]

Studies of Canadian export promotion programs have found contradictory results. One study examined the export outcomes of 500 technology firms in Canada. They found no correlation between the use of an export promotion program with either an increase in total export sales or the firm's export intensity (export sales/total sales)[47] although the researchers did find a correlation between SMB usage and non-

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[39] F.H. Rolf Seringhaus, "Trade Missions in Exporting: State of the Art" *Management International Review,* Vol. 29 No. 2 (2nd Quarter 1989): 5-16.

[40] *Ibid*. See also: June N.P. Francis and Colleen Marie Collins, "The Impact of Firms? Export Orientation on the Export Performance of High-Tech Small and Medium-Sized Enterprises" *Journal of International Marketing,* Vol. 21 Iss: 4 (2004): 474-495. Francis asserts that export promotion programs are one of several factors that affect exporting behavior.

[41] *Ibid.*

[42] *See* C.N. Wheeler, "Stimulating Scottish and United Kingdom Economics Through Export Promotion Programs" *International Perspectives on Trade Promotion and Assistance,* Quorum, New York, NY (1990): *102-111. See also:* H.W. Vanderleest, "What New Exporters Think About US Government-sponsored Export Promotion Services and Publications", *Multinational Business Review*, Vol. 4 No. 2 (1996): 21-29.

[43] E.E. Marandu, "Impact of Export Promotion on Export Performance: A Tanzanian Study" *Journal of Global Marketing* Vol. 9 No. ½ (1995): 9-39. See also: D. Crick and M.R. Czinkota, "Export Assistance: Another Look at Whether We are Supporting the Best Programs", *International Marketing Review* Vol. 12 No. 3 (1995): 61-72. See also: Jim Blythe, "The Evaluation of Non-Selling Activities at British Trade Exhibitions: An Exploratory Study", *Marketing Intelligence & Planning,* Vol. 14 Iss. 5 (1996): 20-24.

[44] Andrew B. Bernard and J. Bradford Jenson, "Why Some Firms Export", *The Review of Economics and Statistics,* Vol. 86, No. 2 (May 2004): 561-569.

[45] Christian V. Martincus, Jeronimo Carballo, and Pablo Garcia, "Firm Size and the Impact of Export Promotion Programs", *Trade Policy Research.* (2010): 191-244.

[46] Christian Helmers and Natalia Trofimenko, "Export Subsidies in a Heterogeneous Firm Framework", *Working Paper No. 147 (*September 2010).

[47] June P. Francis and Colleen Marie Collins, "Impact of Export Promotion Programs on Firm Competencies, Strategies and Performance: The Case of Canadian High-Technology SMEs", *International Marketing Review.*

tangible markers of export success.[48] In another study, researchers found that Canadian firms that accessed export promotion programs were, on average, exporting 17.9 percent more than a typical Canadian firm. This benefit tends to continue years after the initial assistance.[49]

Research looking specifically at trade missions has also found mixed results. A 2001 study of U.K. trade missions found that trade sales were up in the years following a trade mission.[50] The study found that the business leads developed during the trade mission led to later sales. However, the researchers cautioned that the firms needed to stay active overseas (e.g., hire an overseas agent, attend trade shows, contact leads often) to be successful.[51] Two earlier studies did not find a relationship between trade missions and export sales. Seringhaus found no relationship between export sales and trade missions' attendance.[52] Wilkinson found a negative relationship between U.S. state trade missions and state export sales. The study concluded that trade missions might not be a productive activity for generating more export sales; but rather, better suited towards attracting foreign direct investment.[53]

Regarding trade shows, research shows that they pay off for participants. Seringhaus' 2000 study of trade shows found a positive correlation between attendance and export sales, although the correlation was lower for companies that received a grant to attend the trade show.[54] A case study of a single trade show participant found an increase in both sales and profits after trade show attendance; however, this case study might be less relevant to this analysis since the studied firm was an experienced exporter. Wilkinson saw a positive relationship between a state's total export sales and the number of trade shows sponsored by the state's export promotion department. His study estimated that for every trade show sponsored by a U.S. state, the state saw an additional $189 million in export sales.[55]

With respect to the presence of international offices, very little research has been done into the effectiveness of state international offices in attracting foreign direct investment. The first reason is the limited availability of data. State international offices did not begin to proliferate until the early 1980s. Most studies exclude data prior to the 1980s and limit the analysis to a narrow-subset of foreign countries where foreign offices are common (notably Japan and Germany).

The second reason is that researchers tend to bundle the operation of international offices with other export promotion expenditures. These studies show a positive relationship between a state's export

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[48] Non-tangible markers can include: better export strategies, improved knowledge of the export market, and greater managerial experience regarding exports.
[49] Johannes Van Biesebroeck, Emily Yu and Shenji Chen, "The Impact of Trade Promotion Services on Canadian Exporter Performance", *Center for Economic Studies-Discussion Papers* (April 2010): 1-46.
[50] Martine M Spence, "Evaluating Export Promotion Programmes: U.K. Overseas Trade Missions and Export Performance" *Small Business Economics.* Vol.20 No.1 (February 2003): 96
[51] *Ibid.*
[52] F.H. Rolf Seringhaus, "The Use of Trade Missions in Foreign Market Entry of Industrial Firms", *Industrial Marketing Purchasing,* Vol. 2 No. 1, (1987): 43-60.
[53] Timothy Wilkinson and Lance E Brouthers, "An Evaluation of State Sponsored Promotion Programs", *Journal of Business Research,* Vol. 47 *(March 2000): 229-236.*
[54] F.H. Rolf Seringhaus and Philip J. Rosson, "Exhibitors at International Trade Fairs: The Influence of Export Support" *Nordic Journal of Business.* Vol. 4 (2000): 505-516.
[55] Timothy Wilkinson and Lance E. Brouthers, "An Evaluation of State Sponsored Promotion Programs", *Journal of Business Research,* Vol. 47 (March 2000): 229-236.

promotion expenditures and FDI within the state.[56] However, the research does not separate the impact between international offices and other export promotion expenditures.[57]

The final reason is that FDI research tends to focus on other state economic variables such as tax, labor, and geographical metrics. Labor variables can include the percentage of workers in a union, educational attainment, the unemployment rate, and measures of labor productivity. Geographical variables can include relative proximity to large markets, proximity to major interstates or ports, and proximity to similar industries.[58] Tax variables can include the presence of a state corporate income tax and the state's relative tax burden compared to other states. The bulk of the analysis related to FDI in the United States focuses on these other variables, with little discussion about state international offices.

There are three studies that measured the impact of international offices on foreign direct investment. Two of the three studies found a positive, significant relationship. Woodward studied Japanese-affiliated manufacturing investments in the U.S. between 1980 and 1989.[59] Woodward looked at whether the establishment of a foreign office before 1984 was associated with higher foreign investment in a later period and found a strong positive relationship.[60]

Bobonis looked at a larger dataset (eight foreign countries) and also found a strong, positive relationship. Bobonis' study included additional state incentive variables (labor and capital subsidies), but only the presence of international offices was significant.[61] The paper estimated that for every 1 percent increase in the number of years a foreign office is open, the state sees an additional 0.27 percent increase in FDI in the state.[62]

In contrast, Coughlin (2000) did not find a positive relationship. Instead, the study found a negative, but not significant, relationship between FDI and international offices.[63] Coughlin's study looked at newly-built, foreign-owned manufacturing plants in the United States from 1989 to 1995.

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[56] See: Cletus C. Coughlin, Joseph T Terza and Vachira Arromdee, "State Characteristics and the Location of Foreign Direct Investment within the United States" *The Review of Economics and Statistics,* Vol. 4. (November 1991): 675-683. See also, Joseph Friedman, Daniel Gerlowski and Johnathan Silberman, "What Attracts Foreign Multinational Corporations? Evidence from Branch Plant Location in the United States" *Journal of Regional Science,* Vol. 32, No. 4 (1992): 403-418. See also, Joseph Friedman, Hung-Gay Fung, Daniel Gerlowski and Johnathan Silberman, "A Note on State Characteristics and the Location of Foreign Direct Investment within the United States" *The Review of Economics and Statistics,* Vol. 78, No. 2 (May 1996): 367-368.
[57] *Ibid.*
[58] Also called Industrial Clustering. This is a geographic area where a large concentration of similar firms operate. Additional firms will relocate there, because the area will already contain the skilled workforce and suppliers needed by the firm.
[59] Douglas P. Woodward, "Determinants of Japanese Manufacturing Start-Ups in the United States" *Southern Economic Journal,* Vol. 58, No. 3 (January 1992): 609-708.
[60] *Ibid.*
[61] Gustavo J. Bobonis and Howard J. Shatz, "Agglomeration, Adjustment, and State Policies in the Location of Foreign Direct Investment in the United States" *The Review of Economics and Statistics,* Vol. 89, No. 1 (Feb 2007): 30-43.
[62] *Ibid*, at 39.
[63] Cletus C. Coughlin and Eran Segev, "Location Determinants of New Foreign-Owned Manufacturing Plants" *Journal of Regional Science,* Vol. 40, No. 2 (2000): 323-351.

OVERVIEW OF PROGRAMS

Enterprise Florida (EFI) is a public-private partnership that serves as the principal economic development organization for Florida. There are two divisions within Enterprise Florida that support international trade and business development programs. The International Trade and Development division offers export assistance to Florida businesses and operates Florida's international offices. The Business Development division develops foreign direct investment projects recruited and referred by the international offices. Because the Business Development division is not included in the statutory review directive, its economic benefit is not evaluated in this report. The report focuses solely on the services provided by the International Trade & Development division.

The International Trade and Development division has two principal programs: the Export Diversification and Expansion program and International Offices program. The Florida Legislature has appropriated $6.6 million in annual funding for the division, for a total of $19.8 million in the review period (FY 2017-18, FY 2018-19 and FY 2019-20.) Of the total, $4.55 million dollars was designated annually for grant assistance and related programs, with the remaining designated for the International Programs and Offices. The Division also received $3.8 million in event revenue and other income during the review period.

The Export Diversification and Expansion Program provides the following services:

- Florida's Export Directory: a directory that connects international buyers with Florida-based suppliers. An interested party can search by industry. Each listing contains a short description and contact information for the registered supplier.
- International Trade Statistics: a database of Florida's trading partners; export destinations and commodities; state-of-origin exports; and a summary of U.S. trade statistics.
- International Trade Shows & Trade Missions: a variety of events to accommodate business development delegations comprised of private and public sector leaders who visit target markets of high opportunity.
- Trade Grant Programs and Export Marketing Plan Scholarships.
- Miscellaneous Services: a variety of technical assistance to Florida exporters such as helping a company find a distributor or sales representative, assisting with regulatory issues and licensing, and preparing Certificates of Free Sale and Good Manufacturing for exporting firms.

Certificates of Free Sale are documents indicating that the exporting products are legally sold or distributed in the open market and approved by the regulatory authorities in the country of origin. Some countries require such documents as a condition of importing goods into their country. Types of imports that would require a Certificate of Free Sale include, among others, biologics, food, drugs, medical devices, and veterinary medicine.

In 2018, EFI assumed primary responsibility for issuing Certificates of Free Sale for the State of Florida.[64] Previously, the Florida Department of Agriculture and Consumer Services, the Florida Department of Health, private entities, and EFI all issued Certificates to requesting businesses. The International Trade and Development division has automated the process through EFI's website and offers on-line or telephonic assistance to applicants upon request.[65] EFI charges $15 for a digital certificate, and an

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[64] *See* Appendix for details.

[65] *See* [*Certificate of Free Sale (enterpriseflorida.com)*]

additional $10 for a paper version. Fees are paid at the time of application. From Fiscal Year 2017-18 through 2019-20, EFI processed 31,566 Certificates.[66]

The available grants and scholarships to small or medium-sized Florida companies include:[67]

- Target Sector Trade Grants provide financial assistance to help Florida businesses in target sectors attend qualified trade shows or exhibitions around the world.[68] Eligible companies may be reimbursed up to $7,500 for expenses.
- Gold Key/Matchmaker Grants serve as a market development tool for businesses in target sectors that are new or infrequent exporters by subsidizing the cost of meeting with pre-screened and pre-qualified buyers, agents, importers, and representatives with an interest in their products or services. The grant covers 100 percent of the participation fee for Enterprise Florida trade missions, or the full cost of a stand-alone Gold Key-Matchmaker service.
- Export Marketing Plan Scholarships provide near full-funding of the cost of a customized export marketing plan for eligible companies. The export marketing plan provides the company with an in-depth strategic assessment of the firm's export opportunities. Eligible companies receive a $4,500 grant to cover most of the cost ($5,000) of a customized export marketing plan developed by a Small Business Development International Trade Specialist.
- Florida Online Global—Website Localization Grants provide up to $8,000 of the cost to create a localized website to help Florida new or infrequent exporters establish or expand their overseas presence.
- International Registration Grants provide 50 percent of the international registration/certification application fee, up to a maximum of $10,000, to medium-sized manufacturers to offset the costs of obtaining international product registrations, certifications or markings that may be required to do business overseas.

In response to the travel constraints imposed during the pandemic in 2020, the Export Diversification and Expansion Program offered Virtual Business Matchmaking (VBM) Grants or Services, which provided reimbursement for the full cost of virtual matchmaking services with up to five pre-screened and pre-qualified agents, distributors, or partners to businesses in target sectors. In addition, the program offered Virtual Trade Show Grants to provide businesses in target sectors reimbursable trade grants of up to $2,500 to cover the cost of participating in virtual trade shows. [69]

The **International Offices Program** includes services provided through Florida's 18 international trade offices in 16 countries.[70] The international offices provide local assistance to Florida firms in the foreign countries; provide international market information; and assist and coordinate EFI-sponsored trade shows and trade missions. These services support efforts to increase state exports into the host country.

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[66] Information regarding the volume of Certificates of Free Sale and Good Manufacturing submitted by EFI, on file with EDR.
[67] See Explore the Trade Grants in Florida (enterpriseflorida.com) *See* EFI's Annual Report, 2019-20, p. 33. Annual-Report-2020.pdf (enterpriseflorida.com)
[68] Currently, target sectors include Architecture/Construction/Engineering Services; Aviation Services; Computer Services; Education/Training Services; Financial Services; Healthcare Services; Information Services; Investment Services; Management Consulting Services; Oil/Gas/Mineral Exploration Services; Operations/Management Services; Telecommunications Services; and Water Resources Equipment Services.
[69] EFI's Annual Report, 2019-20, p. 33. Annual-Report-2020.pdf (enterpriseflorida.com)
[70] *See* https://www.enterpriseflorida.com/for-international-companies/ As reported in 2021, Florida's international offices are located in Brazil, Canada (Toronto and Montreal), Mexico, Japan, Taiwan, Singapore, China (Hong Kong and Shanghai), France, Belgium, Czech Republic, Germany, Spain, United Kingdom, Israel, Kenya, and South Africa. https://www.enterpriseflorida.com/wp-content/uploads/Florida-International-Business-Advantages-Brief.pdf

Arguably, the most important economic function of Florida's International Offices is to promote and develop opportunities for foreign direct investment, with potential investment opportunities referred to EFI's Business Development division.

Foreign direct investment (FDI) is defined as the full or partial ownership by a foreign investor of a business operating in the domestic country.[71] Foreign direct investment can involve either a new business or an established company whose shares are bought by a foreign company. In 2019, the total stock of FDI in the United States was $4.46 trillion.[72] In 2020, expenditures for acquisitions were $116.3 billion, expenditures to establish new U.S. businesses were $1.9 billion, and expenditures to expand existing foreign-owned businesses were $2.4 billion.[73]

The U.S. Bureau of Economic Analysis (BEA) reports that in 2019, expenditures by foreign direct investors to acquire, establish or expand U.S. businesses totaled $221 billion.[74] Acquisitions of existing businesses accounted for 97.6 percent of these expenditures. Of the national total, FDI in Florida accounted for 2 percent ($4.5 billion). The BEA also reports that 285,200 jobs were associated with FDI nationally in 2019, with Florida accounting for 11,600 of these jobs (4 percent).[75]

In 2018, an estimated 359,000 Florida jobs were affiliated with foreign-owned firms in Florida.[76] The top ranked investor-countries associated with these jobs included the United Kingdom, Canada, Germany, France and Switzerland.[77] Nationally, 34 percent of the jobs associated with FDI are in manufacturing.[78] The next largest industries are retail trade and wholesale trade (10 percent, respectively).[79]

Besides direct employment benefits, a state can benefit from FDI through a spillover effect from new technology inputs and the human capital training required to operate the new technology.[80] Technology spillover occurs through competing domestic businesses adopting the new technology. These spillovers tend to make the economy more efficient and competitive in the long-run. Additionally, advances in human capital occur through FDI employee training and worker turnover that spreads the benefit to

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[71] The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of a foreign direct investment. *OECD Benchmark Definition of Foreign Direct Investment,* 4th Edition (2008), Glossary of FDI Terms and Definitions, p. 7. https://www.oecd.org/daf/inv/investment-policy/2487495.pdf and https://www.bea.gov/sites/default/files/2021-06/fdi0721.pdf

[72] Bureau of Economic Analysis, "Direct Investment by Country and Industry, 2019." https://www.bea.gov/data/intl-trade-investment/direct-investment-country-and-industry

[73] Bureau of Economic Analysis, "New Foreign Direct Investment in the United States; 2020." (July 2020) https://www.bea.gov/news/2021/new-foreign-direct-investment-united-states-2020 and https://www.bea.gov/sites/default/files/2021-06/fdi0721.pdf

[74] fdi0721.pdf (bea.gov)

[75] EFI reports there were 43 foreign investment projects established in Florida in FY 2019-20 through their International Offices Program, with $89.2 million in actual capital investment, and 1,213 new and retained jobs. EFI International Offices Annual Report, FY 2019-20, p. 8. COUNTRY (enterpriseflorida.com)

[76] International Trade Administration, "State Economy And Trade Factsheets," https://www.trade.gov/data-visualization/state-economy-and-trade-factsheets

[77] Enterprise Florida, Inc. "Foreign Direct Investment in Florida," June 2020. https://www.enterpriseflorida.com/wp-content/uploads/foreign-direct-investment-in-florida.pdf
Also see International Trade Administration, "Florida Exports, Jobs, and Foreign Investment", *U.S. Department of Commerce*.

[78] "Activities of U.S. Affiliates of Foreign Multinational Enterprises in 2017" *U.S. Bureau of Economic Statistics* (December 2019). https://apps.bea.gov/scb/2019/12-december/1219-affiliates.htm

[79] *Ibid.*

[80] E. Borensztein, J. De Gregorio and J.W. Lee, "How Does Foreign Direct Investment Affect Economic Growth?" *Journal of International Economics,* Vol. 45 (1998): 115-135.

new employers. Academic research has shown that this benefit is especially true in the manufacturing sector.[81]

Another benefit is the local linkages established by the FDI business. When the company is a new entrant into the domestic market, the foreign firm is likely to establish ties with both upstream suppliers of raw and intermediate goods and downstream buyers of the firm's product. Besides the effect of increasing overall demand, foreign firms may share general technology advice to both upstream and downstream associates.[82] This can improve general business practices, lower costs, and increase profits. In the long-run, these benefits may foster a stronger, more robust local economy.[83]

[81] Laura Alfaro, "Foreign Direct Investment and Growth: Does the Sector Matter?" *Harvard University, Harvard Business School, (2003).*

[82] Ronald Findlay, "Relative Backwardness, Direct Foreign Investment and the Transfer of Technology: A Simple Dynamic Model", *Quarterly Journal of Economics,* Vol. 92, (1978): 1-16.

[83] *Ibid.* Also, research on the benefit of FDI spillover is mixed. See: H. Gorg and D. Greenaway, "Much Ado About Nothing? Do Domestic Firms Really Benefit from Foreign Direct Investment?" *IZA Discussion Paper,* No. 944*,* (November 2003): 1-38.

DESCRIPTION OF THE DATA

The analysis relies on data provided by EFI's Division of International Trade & Development for Fiscal Years 2017-18, 2018-19 and 2019-20. This includes state appropriations and other division revenue, as well as division expenditures.

For the Export Diversification and Expansion Program, EFI provided identification of and contact information for firms that received export assistance during the review period; the services, grants and scholarships provided to the firms; and the reported actual and expected sales resulting from the assistance provided in trade shows or trade missions during the review period. The sales information is collected from a report that businesses submit to EFI representatives immediately following each trade event.

EFI also identified projected foreign direct investments, the dollar amount of any capital investment, total employment (retained and new), and average wages associated with projects in Florida facilitated by the international offices during the review period.

METHODOLOGY

Statewide Model

EDR used the Statewide Model to evaluate the economic impact of the programs under review. The Statewide Model is a dynamic computable general equilibrium (CGE) model that simulates Florida's economy and government finances.[84] The Statewide Model is enhanced and adjusted each year to reliably and accurately model Florida's economy. These enhancements include updating the base year the model uses, as well as adjustments to how the model estimates tax collections and distributions.[85]

Among other things, the Statewide Model captures the indirect and induced economic activity resulting from the direct program effects. This is accomplished by using large amounts of data specific to the Florida economy and fiscal structure. Mathematical equations[86] are used to account for the relationships (linkages and interactions) between the various economic agents, as well as likely responses by businesses and households to changes in the economy.[87] The model also has the ability to estimate the impact of economic changes on state revenue collections and state expenditures in order to maintain a balanced budget by fiscal year.

When using the Statewide Model to evaluate programs like the ones under review in this report, the model is shocked[88] using the results from static analysis which identified the initial or direct effects attributable to the projects funded by the program. In this report, the annual direct effects are different for each program.

The Export Diversification and Expansion Program's direct effects ("shocks") are:

- Removal of the costs from the state budget.
- Increase in demand for Florida goods ("exports") from outside the state.

The International Offices Program direct effects ("shocks") are:

- Removal of the costs from the state budget.
- Capital investment by foreign firms.
- Increase in output based on jobs and payroll associated with foreign firms.[89]

After the direct effects are developed and estimated, the model is then used to estimate the additional—indirect and induced—economic effects generated by the program, as well as the supply-side responses to the new activity, where the supply-side responses are changes in investment and labor

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[84] The statewide economic model was developed using GEMPACK software with the assistance of the Centre of Policy Studies (CoPS) at Monash University (Melbourne, Australia).

[85] Reports prior to January 1, 2017 have used 2009 as the base year. Reports as of January 1, 2017 have used 2011 as the base year.

[86] These equations represent the behavioral responses to economic stimuli – to changes in economic variables.

[87] The business reactions simulate the supply-side responses to the new activity (e.g., changes in investment and labor demand).

[88] In economics, a shock typically refers to an unexpected or unpredictable event that affects the economy, either positively or negatively. In this regard, a shock refers to some action that affects the current equilibrium or baseline path of the economy. It can be something that affects demand, such as a shift in the export demand equation; or, it could be something that affects the price of a commodity or factor of production, such as a change in tax rates.

[89] Jobs are multiplied by the average wage for the project and by an "employer benefits contribution" multiplier to determine the total wage bill for each year. IMPLAN output-to-compensation ratios are then used to estimate the annual output from the total wage bill.

demand arising from the new activity. Indirect effects are the changes in employment, income, and output by local supplier industries that provide goods and services to support the direct economic activity. Induced effects are the changes in spending by households whose income is affected by the direct and indirect activity.

All of these effects can be measured by changes (relative to the baseline) in the following outcomes:

- State government revenues and expenditures
- Jobs
- Personal income
- Florida Gross Domestic Product
- Gross output
- Household consumption
- Investment
- Population

EDR's calculation of the Return on Investment (ROI) used the model's estimate of net state revenues and expenditures. Other required measures for this report include the number of jobs created, the increase or decrease in personal income, and the impact on gross domestic product, all of which are included in the model results.[90]

Evaluation Considerations

EDR is charged with evaluating the International Trade and Business Development programs in the same way it evaluates other state economic development programs. To enable this evaluation, EFI provided related state program expenditures and projected export sales and foreign direct investments associated with the programs.

EDR's approach to the calculation of ROI is based on the net economic impact rather than the gross economic activity generated by or attributed to program projects. The impact is due to new economic activity induced by a state subsidy after taking account of what would have occurred in the absence of this particular investment. EDR employs a number of approaches to isolate the new economic activity, including an assessment of the "but-for" assertion[91] and culling "Market and Resource Dependent" projects.[92] The resulting net economic benefit may then be proportionately attributed to all project contributors. Culling "Market and Resource Dependent" projects and proportionally attributing the

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[90] For an overview of Issues that shape EDR's Analysis of Economic Development Incentive Programs and Calculation of Return on Investment, See Appendix One, "Economic Evaluation for Select State Economic Development Incentive Programs," Office of Economic & Demographic Research, November 2021.
http://edr.state.fl.us/Content/returnoninvestment/ROISELECTPROGRAMS2020final_Revised%2011-29-21.pdf

[91] This is the claim that "but for" the program subsidy, the initiation of economic activity would not have otherwise occurred – the incentive is the primary, or at least the determining factor, in business decisions. To some extent, culling "Market and Resource Dependent" projects addresses the "but-for" assertion.

[92] Culling refers to removing the economic benefit of a particular project if it is determined to rely on Florida's markets or resources and would have existed in Florida in the absence of the incentive. These are projects where the business' clients are predominantly based in Florida or the business is dependent on Florida's resources to produce its products or services. [General examples of market dependent projects include retail establishments and distribution centers.] Any new activity induced by the incentives simply displaces other employment and economic activity that would have occurred in the absence of the incentive. There is no net economic expansion, as one of two events occurs: (1) existing businesses shed jobs as their market share decreases; or, (2) a competitor that would have filled the same vacuum without receiving an incentive is displaced. In these cases, neither economic benefits nor a return to the state should be assigned to the projects.

economic benefit are strategies used to derive a credible estimate of the programs' ROI. To the extent it exists, the new economic activity generated by or attributed to programs under review includes wage growth of trained employees, job creation, and business capital investment associated with construction, renovation and purchase of equipment or buildings.

As with previous evaluations, this analysis assumes "but for" the Export Diversification and Expansion Program, the Florida firms would not have completed the export sale(s). For the International Offices Program, the analysis assumes "but for" the services of the international offices, the foreign firm would have chosen a different state or country in which to invest.

Twenty-five of the 121 firms recruited by the International Offices have been determined to be Florida market and resource dependent. The businesses cannot claim that "but for" the program benefit, they would not have undertaken the business activity. Consequently, no economic benefit is attributed to these projects.

The international offices are the initial contact points for international businesses that are interested in investing in Florida. The international office meets with the foreign company and provides the company with preliminary information. If the foreign firm decides to pursue Florida as an option for investment (FDI), the international office forwards the lead to Business Development division, which then develops the potential project. Because of this shared responsibility, this analysis evenly apportions the economic benefits of the FDI—attributing one-half of the economic benefit to the International Offices Program.

While the international offices do assist at the trade shows and trade missions, the analysis attributes all actual sales arising from those events to the Export Diversification and Expansion Program. The first reason is that majority of the sales (94.5%) are tied to Florida firms that received an Export Marketing Plan or a Trade Grant in the past. Both the scholarship and the grants are administered by the Export Diversification and Expansion Program. Second, the international offices provide support, but the Export Diversification and Expansion Program is the main organizer of the trade shows and trade missions.

KEY ASSUMPTIONS

The following general assumptions are used in the Statewide Model to determine the outcomes of the programs under review. Some of the assumptions are used to resolve ambiguities in the literature, while others conform to the protocols and procedures adopted for the Statewide Model.

1. The analysis assumes all data provided by Enterprise Florida and other entities is complete and accurate. The data was not independently audited or verified by EDR.

2. The analysis assumes, given the time span under review, applying discount rates would not prove material to the outcome.

3. The analysis assumes the state's budgetary allocation for the programs is a redirection from the general market basket of goods and services purchased by the state. Similarly, any revenue gains from increased business activities are fully spent by the state.

4. The analysis assumes the relevant geographic region is the whole state, not individual counties or regions. The Statewide Model does not recognize that any economic benefit arises from intrastate relocation. However, the model accounts and makes adjustments for the fact that industries within the state cannot supply all of the goods, services, capital, and labor needed to produce the state's output.

5. The analysis assumes businesses treated the assistance as subsidies that lowered the cost of operation for each individual firm.

6. The analysis assumes distribution of capital purchases by each business is the same as the industry in which it operates. This assumption is made because data is not available regarding the specific capital purchases associated with each project. It is also assumed that the businesses within a program are not large enough to affect the rate of return on capital within the industries in which the businesses operated.

7. The analysis assumes the output from projects does not displace the market for goods and services of existing Florida businesses. To do this, output associated with the businesses is assumed to be exported to the rest of the world. The "rest of the world" is defined as other states or the international market.

8. The analysis assumes the export assistance to the firms was the determining factor in the businesses' decision to export.

9. The analysis assumes the assistance given to the international firms by the international offices was the determining factor in investing in Florida and not a competing state.

KEY TERMS

In the pages that follow, diagnostic tables describing the composition and statistics of the analysis precede the discussion. Key terms used in the tables are described below:

State Payments Used in Analysis $(M) – Represents the amount of state payments made to the program in each fiscal year.

Total Net State Revenues $(M) – Represents the amount of new state revenue generated by the program in each fiscal year.

Personal Income (Nominal $(M)) – Reflects income received by persons from all sources. It includes income received from participation in production as well as from government and business transfer payments. It is the sum of compensation of employees (received), supplements to wages and salaries, proprietors' income with inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj), rental income of persons with CCAdj, personal income receipts on assets, and personal current transfer receipts, less contributions for government social insurance.

Real Disposable Personal Income (Fixed 2016-17 $(M)) – Reflects total after-tax income received by persons; it is the income available to persons for spending or saving.

Real Gross Domestic Product (Fixed 2016-17 $(M)) – Measures the state's output; it is the sum of value added from all industries in the state. GDP by state is the state counterpart to the Nation's gross domestic product.

Consumption by Households and Government (Fixed 2016-17 $(M)) – Reflects the goods and services purchased by persons plus expenditures by governments consisting of compensation of general government employees, consumption of fixed capital (CFC), and intermediate purchases of goods and services less sales to other sectors and own-account production of structures and software. It excludes current transactions of government enterprises, interest paid or received by government, and subsidies.

Real Output (Fixed 2016-17 $(M)) – Consists of sales, or receipts, and other operating income, plus commodity taxes and changes in inventories.

Total Employment (Jobs) – Provides 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.

Population (Persons) – Reflects first of year estimates of people, including survivors from the previous year, births, special populations, and three types of migrants (economic, international, and retired).

PROGRAM FINDINGS

Export Diversification and Expansion Program

The analysis of the Export Diversification and Expansion Program examines the economic benefit of export assistance services, including the grant programs, the scholarship program, and other miscellaneous services. The analysis does not assign an economic benefit to the export directory or international trade statistics. While these services are useful to Florida firms, the economic benefit is ambiguous and difficult to measure because no data are available for either service. Additionally, the assistance provided through the existence of the export directory and international trade statistics is relatively minor and not likely to be the determining factor in a firm's decision or ability to export.[93]

In addition, the analysis does not assign an economic benefit to the sales reported on Certificates of Free Sale for the following reasons. Primarily, EDR's analysis is limited by statute to the services funded through the International Trade and Promotion Trust Fund. Fee revenue from Certificates of Free Sale are not included in the Trust Fund. Second, EFI significantly expanded this automated, ministerial service in the second year of the review period. Consequently, economic output attributed to the program would significantly skew the program ROI as compared to previous analyses. Finally, measuring the economic impact of this service would be a challenge, as it simply shifts access to this service from other public and private entities to EFI.[94]

The analysis attributes all actual sales to the Export Diversification and Expansion Program. This amounts to $178.32 million in export sales over the review period. Actual sales is defined as any sale recorded by companies receiving export assistance, as reported when deals are negotiated.[95] The much higher expected sales figure ($2,151 million) is not attributed to the program for several reasons. The first reason is related to timing. The expected sales are projected to occur sometime in the future, but without an exact date, it cannot be determined that the sales occurred within the review period. Second, attribution becomes problematic. It is true that the Export Diversification and Expansion Program likely facilitated the initial encounter between buyer and seller, but the research suggests that a firm's doggedness to pursue the sale over months, if not years, is what leads to a final sale.[96] Third, whether the anticipated sales actually occur is an issue, too. One researcher found that only 21 percent of trade show sales leads convert to actual sales.[97]

The Florida firms were industries ranging from computer electronic manufacturing to textiles. They affect 41 out of the 77 industries in the Statewide Model. Six percent of sales occurred in FY 2017-18, 25 percent in FY 2018-19, and 69 percent in FY 2019-20.

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[93] See the "But For" Requirement discussion in the Methodology section. Another source of free Florida trade statistics is the U.S. Census Bureau and the International Trade Administration.

[94] *See* Appendix for details.

[95] For a discussion of issues related to the reported projected (or expected) and actual sales reported by firms, see "Florida Economic Development Program Evaluations – Year 9" OPPAGA Report No. 21-09, December, 2021, pp. 87-88, 102-103. https://oppaga.fl.gov/Documents/Reports/21-09.pdf

[96] Martine M Spence, "Evaluating Export Promotion Programmes: U.K. Overseas Trade Missions and Export Performance" *Small Business Economics.* Vol. 20 No. 1 (February 2003): 83-103.

[97] Jim Blythe, "The Evaluation of Non-Selling Activities at British Trade Exhibitions: An Exploratory Study", *Marketing Intelligence & Planning,* Vol. 14 Issue 5 (1996): 20-24.

Appropriations related to the International Trade and Business Development division, excluding appropriations for the international offices, were deemed to be the state's investment for the purposes of this calculation. [98]

Economic Model Impact Projections of the Export Diversification and Expansion Program

		FY2018	FY2019	FY2020	Total
State Payments in the Window	Nominal $ (M)	4.55	4.55	4.55	13.65
Total Net State Revenues	Nominal $ (M)	0.16	(0.67)	1.03	0.52
Return-on-Investment by Year		0.04	(0.15)	0.23	
Return-on-Investment for the 12 year period					0.04

		FY2018	FY2019	FY2020	Total		Average per Year
Personal Income	Nominal $ (M)	148.88	121.81	159.13	429.81		143.27
Real Disposable Personal Income	Fixed 2016-17 $ (M)	123.12	98.47	126.36	347.95		115.98
Real Gross Domestic Product	Fixed 2016-17 $ (M)	159.62	106.95	131.41	397.98		132.66
Consumption by Households and Government	Fixed 2016-17 $ (M)	126.27	97.73	122.32	346.32		115.44
Real Output	Fixed 2016-17 $ (M)	312.85	216.07	261.23	790.14		263.38

		FY2018	FY2019	FY2020	Minimum	Maximum	Average per Year
Total Employment	Jobs	816	422	714	422	816	651
Population	Persons	0	346	594	0	594	313

The ROI for the Export Diversification and Expansion Program is projected at 0.04. For every dollar spent on services to exporters, the state of Florida received 4 cents back in tax revenue. In addition, Florida's Real GDP increased by about $397.98 million, and Real Disposable Personal Income grew by $347.95 million during the review period. These economic benefits are attributable to the $178 million in export sales that are associated with the program. These sales originated from Florida businesses that received assistance.

The ROI is lower than the 2018 analysis (1.05) primarily because of a decrease in reported sales, as shown in the table below. Of note, the average actual sales reported in the 2018 analysis was $71.49 million compared to $59.44 million in this analysis, while the average state payment remained essentially the same.

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[98] In previous analyses, expenditures were deemed by EDR to be the state's investment. Such expenditures included income from events and other sources. The expansion of EFI's Certificate of Free Sale service informed our reevaluation of this approach. Using appropriations is consistent with the methodology used in reviews of other programs.

State Payments and Actual Sales of the Export Diversification and Expansion Program		
Fiscal Year	**State Payments (Millions $)**	**Actual Sales (Millions $)**
2014-15	4.09	90.17
2015-16	4.65	62.50
2016-17	4.79	61.79
Total	13.53	214.46
Annual Average	4.51	71.49
2017-18	4.55	62.36
2018-19	4.55	53.03
2019-20	4.55	62.92
Total	13.65	178.32
Annual Average	4.55	59.44

International Offices

This analysis relies on data provided by the Business Development division. The data contains 121 successful FDI projects in Florida within the review period. Each project was referred to the Business Development division by one of Florida's international offices. The data includes the amount of capital investment, total employment, and average wage for each project.

The data is problematic. First, it is not verified by EFI. There is no requirement that the company submit proof of employment numbers or capital purchases. [However, if the company receives other state incentives for their investments, the Business Development division does track job creation and capital investment figures as a condition of receiving the incentives.] Second, the investment and employment numbers reflect what the company expects to create over the next three years but does not attribute the activity to specific years. As a result, the analysis spreads the data uniformly across the three-year review period. Any investment and employment projected outside of the review period is excluded. Third, the analysis requires NAICS codes to estimate output.[99] Because NAICS codes are not included in the data, each company had to be researched in order to assign it a NAICS code.

The output is evenly apportioned (1:1) between the International Offices Program and Business Development division, meaning that only one-half of the output is attributed to the international offices.

As discussed in the Methodology section, the output from businesses determined to be dependent on Florida resources to produce or Florida markets to sell their products or services are excluded from the analysis. Twenty-five of 121 firms in this review period were determined to be Florida market or resource dependent. There is no new state revenue resulting from these projects since the businesses are otherwise tied to Florida, meaning the state would have already been their (or a competitor's) location choice.

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[99] North American Industry Classification System (NAICS) is the coding system used by the Federal Government in classifying business establishments.

Appropriations related to the international offices were deemed to be the state's investment in recruiting foreign investment for the purposes of this calculation. [100]

The estimated total direct output from the program over the review period is $217.6 million. In addition, the foreign firms made capital investment purchases of $91.8 million over the three-year review period. Eighteen of the 77 industries in the Statewide Model are impacted by the program. The industries range from manufacturing to retail.

Statewide Economic Model Impact Projections of the International Offices Program

		FY2018	FY2019	FY2020	Total
State Payments in the Window	Nominal $ (M)	2.05	2.05	2.05	6.15
Total Net State Revenues	Nominal $ (M)	0.20	8.29	18.79	27.28
Return-on-Investment by Year		0.10	4.04	9.17	
Return-on-Investment for the 3 year period					4.44

		FY2018	FY2019	FY2020	Total		Average per Year
Personal Income	Nominal $ (M)	76.31	324.31	656.75	1,057.38		352.46
Real Disposable Personal Income	Fixed 2016-17 $ (M)	62.78	262.22	523.04	848.05		282.68
Real Gross Domestic Product	Fixed 2016-17 $ (M)	78.72	332.29	647.20	1,058.22		352.74
Consumption by Households and Government	Fixed 2016-17 $ (M)	65.33	267.77	503.80	836.89		278.96
Real Output	Fixed 2016-17 $ (M)	144.59	592.58	1,172.89	1,910.06		636.69

		FY2018	FY2019	FY2020	Minimum	Maximum	Average per Year
Total Employment	Jobs	383	1,463	2,599	383	2,599	1,481.67
Population	Persons	0	200	986	0	986	395.33

The ROI for the International Offices Program is projected at 4.44. For every dollar spent on the International Offices Program, the state of Florida received 4 dollars and 44 cents back in tax revenue. In addition, the activity induced by the state incentive caused Florida's Real GDP to increase by $1,058 million and caused Real Disposable Personal Income to grow by $848 million in the review period.

The ROI for this program is high for two reasons. First, the international offices recruited firms with higher-than-average economic multipliers. Industries like finance and manufacturing have a greater impact on Florida's economy than traditional Florida industries, like retail and food service. In large part, this is because they tend to have larger input purchases, which leads to greater indirect and induced impacts within the economy. Additionally, these industries have higher wages,[101] which leads to a greater impact on Florida's economy.

The second reason is capital investment. Investment activity is a direct impact that generates considerable tax revenue through material purchases and the indirect activity of construction workers. In the review period, 93 percent of all the firms had capital investment. Their capital investment after

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[100] In previous analyses, expenditures were deemed by EDR to be the state's investment. Such expenditures included income from events and other sources. The expansion of EFI's Certificate of Free Sale service informed our reevaluation of this approach. Using appropriations is consistent with the methodology used in reviews of other programs.

[101] The average reported wage of the firms in the analysis was $62,247. Florida's 2019 average wage was $54,102 (Source: The Florida Economic Estimating Conference, July 2021).

apportionment ranged from $17.5 million to a thousand dollars; but, regardless of the amount, the cumulative capital investment contributed to a strong ROI.

The ROI is higher than the 2018 analysis (4.28) primarily because of the increased direct output attributed to the program in this review period, $217.6 million compared to $145.5 million in the 2018 analysis. The marginal increase in the state's investment, $6.15 million to $5.8 million in the 2018 analysis, did not offset the impact of the increase in output.

Submitted by Enterprise Florida, Inc.:

International Trade & Development (ITD)
Enterprise Florida, Inc.

Executive Summary

The International Trade & Development (ITD) unit at Enterprise Florida (EFI) has consistently excelled and achieved its stated objectives and goals. ITD's program has done this over the years by being innovative and adapting to a diversifying economy and new market conditions. As Florida has grown significantly, so has ITD's services and offerings. One such program that has been developed and expanded is the Certificates of Free Sale program. Because of the success of the program, and because of ITD's ability to listen to market needs, the International Trade & Development division of EFI has big plans to expand its Certificates programs and other new innovative programs into the next decade.

Certificate of Free Sale History

A Certificate of Free Sale, sometimes called a "Certificate for Export" or "Certificate to Foreign Governments," is evidence that certain goods – such as food items, cosmetics, biologics, or medical devices – are legally sold or distributed in the open market, freely without restriction, and approved by the regulatory authorities in the country of origin (United States). The Certificate is required by some, but not all, foreign countries in order for a shipment to be exported to that country.

Enterprise Florida created a Certificate of Free Sale (CFS) program to provide this export assistance service in June 2012. The CFS program was added to an existing and ever-growing suite of export assistance options for ITD's Florida-based clients. The paper-administered service provided approximately 150 Certificates per year for roughly five years. The Florida Department of Agriculture and Consumer Services

(FDACS) also offered this service to Florida companies (as do other entities in Florida). On November 28, 2017, Brenda Morris of the FDACS Division of Food Safety contacted Enterprise Florida to discuss merging the two Certificates of Free Sale programs together, with Enterprise Florida taking over the entire program on behalf of the state of Florida. The rationale was that 98% of the users of the program were in Miami and that providing the service in Miami rather than Tallahassee would better serve industry needs with timely turnarounds. The program would then be housed in Enterprise Florida's existing International Trade & Development office in Coral Gables, Florida since it was already an existing offering for ITD's clients.

Discussions between EFI, the FDACS and the Executive Office of the Governor were ongoing from February through October 2018 to understand what would be required of EFI and the impact on our limited resources. On August 1, 2018, the transition to Enterprise Florida was complete. Now under EFI's purview, a new online application was designed and implemented over a six-month period by EFI staff that decreased the turnaround-time from one week to one day. The cost of the program remained $15.00 per certificate with an additional $10.00 charge for notarized, printed copies, which is the same price each agency/organization was charging before the transition. The number of Certificates being handled by EFI after the merger increased exponentially and required the hiring of two new full-time staff members to manage the program. More than 13,000 Certificates were handled in each of the last three fiscal years (18-19 to 20-21) and generated more than $300,000 per fiscal year in revenue for Enterprise Florida's general operating fund. Note that, currently, those revenues are not returned to directly fund ITD operations.

Additionally, the Florida Department of Health's Miami office was also providing their own Certificates of Free Sale during this time. As a direct result of the merger between Enterprise Florida and the Florida Department of Agriculture and Consumer Service's Certificates of Free Sale programs, it was decided by the Governor's office to merge the Florida Department of Health program with Enterprise Florida's. As of December 18, 2018, the merger was complete and Enterprise Florida's International Trade & Development office became the official, primary provider of Certificates of Free Sale for the state under authorization from the Governor's Office.

ITD’s Program Future

The International Trade & Development Division at EFI prides itself on its innovative offerings and responding to market needs. Our trade managers and client-facing positions view themselves as consultants – working toward finding unique solutions to the needs of Florida companies. In 2021, Manuel “Manny” Mencia retired after 25 years serving as Senior Vice President of International Trade & Development at EFI. TJ Villamil, the new SVP and supervisor of Florida’s international business development efforts, started in the same position on August 23rd, 2021.

With much respect to the highly regarded institution built under Manny’s leadership, TJ is seeking to take IT&D’s program into the future. The world is rapidly changing, and the pace of change is accelerating. Technology is fueling paradigm shifts in every industry and economy. What does the future of economic development look like? What industries are going to support the continued growth of Florida’s economy for the next decade and beyond? The answers to these questions are impossible to say with certainty but are actively being pursued by EFI’s ITD leadership team.

One thing remains certain – the future for us as a statewide international business development program continues to depend on meeting the needs of the market. As the market digitizes, and as new services are required, we at ITD will be there to provide unique solutions. Already, ITD at EFI is working on the following:

- Expanding the Certificates of Free Sale program through increasing prices and expanding offerings of different Certificates. This includes potentially charging more for expediting the service, creating an Apostille service, and reviving our old Certificate of Good Manufacturing Practices.
- Increasing resources for marketing, advertising, and promoting the CFS and Certificate-like programs. Already ITD’s trade managers talk to Florida companies during consultations but we imagine a digital advertising push that will expand existing numbers and revenues.
- Seeking partnerships with Global accelerators and incubators – a Florida Accelerator Bridge. The rise of global technology companies and startups in

important industries of the future is mission critical for us in Florida to attract. While we traditionally seek Capital Expenditures metrics in economic development, we at EFI ITD understand that companies in important future industries are critical to remaining competitive in a global economy.

The above-mentioned ideas are already in motion. ITD at EFI is sure to have more initiatives that develop over the next three years as Florida's economy diversifies and becomes more robust. It is very important for us to know that Florida's government supports these and future initiatives. Our goal is to diversify our economy and attract and retain high-paying jobs. That's how Florida and Floridians win. We in ITD at EFI are committed to this principle and will continue to work our hardest to support Floridians and Florida companies. Florida leads from the front, and our international business development program is no exception.