

THE ECONOMIC IMPACTS OF THE MDX FY 2015-2019 FIVE-YEAR WORK PROGRAM: PROVIDING MOBILITY SOLUTIONS TO THE MIAMI-DADE COUNTY COMMUNITY



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I. EXECUTIVE SUMMARY

- The Miami-Dade Expressway Authority (MDX) is an important enabler of economic development in Miami-Dade County, providing significant benefits to users and residents.
- MDX FY 2015-2019 Five-Year Work Program reflects the latest assessments of Miami-Dade's expressway transportation needs, and is a key foundation for building a "smart" network that is both technologically intelligent and interconnected with other modes of transportation, thus providing important connectivity, better access and time savings to the users of the MDX system.
- Major projects in the MDX FY 2015-2019 Five-Year Work Program include the expansion of State Road 836, completion of the State Road 826-836 Interchange, and improved connections between State Road 836 and Interstate 95 in downtown Miami. Also, selected improvements on State Roads 874 and 924 will increase their efficiency.
- The current MDX FY 2015-2019 Five-Year Work Program provides significant and positive economic impacts to the economy of Miami-Dade County as illustrated in Table ES-1 below:
 - The infrastructure improvements (capital projects) of the MDX FY 2015-2019 Five-Year Work Program have an estimated Total Economic Impact of close to \$1.5 billion over five years.
 - These capital projects will generate 10,426 jobs for Miami-Dade residents in a wide variety of occupations.

Table ES-1. Summary of the Economic Impacts of the MDX FY 2015-2019 Five-Year WorkProgram in Miami-Dade County

Impact on:	Direct	Indirect & Induced	Total Impact
Employment (Jobs)	5,436	4,990	10,426
Household Income (\$ Millions)	\$303	\$248	\$551
Gross Domestic Product (Value Added-\$ Millions)	\$391	\$400	\$791
State & Local Tax Revenues (\$ Millions)			\$152
Total Economic Impact (\$ Millions)	\$856	\$629	\$1,485

Note: Total may not equal the sum of all due to rounding. See detailed tables in Appendix II. Source: The Washington Economics Group, Inc. (WEG)

- Once completed, the FY 2015-2019 Five-Year Work Program will result in increased mobility and time savings to users of the system, with ongoing (recurring each year) improvements in Employment and Household Income for the benefit of Miami-Dade County residents as presented in Table ES-2 below.
 - Expected time savings from FY 2015-2019 Five-Year Work Program completion will support an estimated 5,951 jobs in Miami-Dade County on an annual recurring basis.
 - Valuing the improved mobility and time savings at the current average wage in Miami-Dade County of \$17.56 per hour, the direct time savings are valued at a minimum of over \$56.2 million per year in Household Income for MDX users. The total impact which includes *direct, indirect* and *induced* time savings will add \$71 million to the Household Income of Miami-Dade County residents each year.

Table ES-2. Summary of the Annually Recurring Economic Impacts Arising from the Improved Mobility & Time Savings of the MDX FY 2015-2019 Five-Year Work Program in Miami-Dade County

Impact on:	Direct	Indirect & Induced	Total Impact	
Employment (Jobs)	5,622	329	5,951	
Household Income (\$ Millions)*	\$56	\$15	\$71	
Gross Domestic Product (Value Added-\$ Millions)*	\$56	\$27	\$83	
State & Local Tax Revenues (\$ Millions)			\$16	
Total Economic Impact (\$ Millions)*	\$56	\$41	\$97	

*Direct Household Income quantifies the valuation of the traffic time savings resulting from the Work Program Completion.

Source: The Washington Economics Group, Inc. (WEG)

II. AN OVERVIEW OF THE MDX FY 2015-2019 FIVE-YEAR WORK PROGRAM

The MDX FY 2015-2019 Five-Year Program is an investment in improving the mobility of Miami-Dade County, while also increasing economic opportunities for residents and users of the system through the creation of jobs, improved mobility and time savings from the MDX system expansions. As funds are reinvested in our community to expand and operate the MDX expressway system, job opportunities, Household Income and economic activity also benefit the entire county.

The FY 2015-2019 Five-Year Work Program represents a prioritized ranking of capital improvement projects at different phases of project development (planning, design, ROW acquisition, construction) aimed at expanding and modernizing the expressway system of MDX. The Five-Year Work Program is regularly revised by MDX as the Authority determines current and prospective requirements for mobility in Miami-Dade County. The current MDX Five-Year Work Program consists of projects with expenditures totaling approximately \$856 million that impact all of the expressways operated by the Authority. Based on the Authority's priorities of Safety, System Preservation and Mobility Improvements, the objectives over the 2015-2019 period will be to complete ongoing projects; complete the procurement process for a system integrator of the Open Road Tolling systems; and the advancement of priority projects. In addition to the completion of several major projects currently underway, the program includes upcoming construction:

- On State Road 836, interchange modifications at 87th Avenue to improve connectivity to SR 836 and SR 826.
- Operational, Capacity and Interchange Improvements to State Road 836 at 57th, 42nd and 27th Avenues.
- Improvements to the Interchange between State Road 836 and Interstate 95 in downtown Miami.
- Construction of a ramp connection for State Road 874 to SW 128th Street.
- In northwest Dade plans are being made to extend State Road 924 further west to connect with the Homestead Extension of the Florida Turnpike near the point where it crosses State Road 27.

The map on the following page shows the locations of each of the projects that are a part of the FY 2015-2019 Five-Year Work Program.





III. THE ECONOMIC DEVELOPMENT IMPORTANCE OF THE MDX FY 2015-2019 FIVE-YEAR WORK PROGRAM ON THE STANDARD OF LIVING OF MIAMI-DADE COUNTY RESIDENTS

The MDX FY 2015-2019 Five-Year Work Program is fundamental to the integrated Transportation Improvement Program (TIP) and plays an essential role in the economic development of Miami-Dade County. The investments into the County's road construction, maintenance and improvements are felt in many ways beyond those quantified in the following economic analysis. These benefits include enhanced connectivity, greater mobility, improved standard of living and accelerated economic development.

Economic development is the generation of income and wealth, leading to an improving **standard of living** for citizens over time. Maximizing the generation of income and wealth requires the effective mobilization of factors of production such as land, labor, capital and entrepreneurship to increase the productivity, wages and incomes of Miami-Dade's labor force and businesses.

Economic development is the creation of income and wealth, leading over time to a rising standard of living for all residents of a community: MDX is a key foundation of economic development. In addition to the enabling role that an efficient transportation system plays in the standard of living of county residents, the Miami-Dade urban economy requires "smart" transportation investment to compete with other regional, national and global competitors which is essential to the retention, relocation and expansion of high-wage jobs via industry growth. Some of the County's competitors already offer or are building efficient transportation systems to attract high-wage industries. Therefore, accelerating economic development and improving the living standard of Miami-Dade's residents

necessitate the Work Program's significant, targeted and prioritized investments in intermodal and technologically "smart" transportation systems that efficiently connect people and industries with local and external marketplaces of the County.

The global marketplace that Miami faces is highly integrated and competitive. Geography alone is not sufficient to maximize the County's economic development potential. Scarce

investment capital and high paying jobs increasingly flow to economic regions that offer the highest net returns to business enterprises. These enterprises are the catalysts that create jobs, income and wealth; but are highly mobile in their investment, production and expansion decisions.

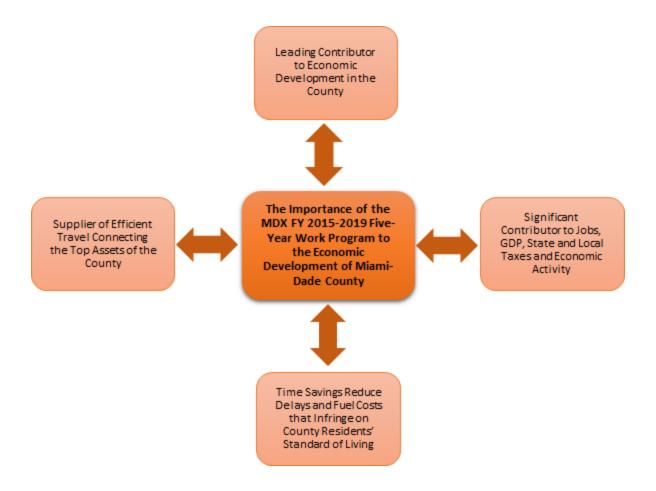
Therefore, to achieve maximum economic development potential and improve the standard of living of residents, the production of goods and services in Miami-Dade County must be efficiently connected in the intra-urban economy and to the external marketplace. These improvements lower the costs of production and distribution for business enterprises – allowing them to expand and create jobs, income and wealth to the benefit of County residents. An efficient intra-urban expressway system that provides **connectivity** among top assets in the County including the Port of Miami, the Miami Intermodal Center (MIC), Miami International Airport, and the interstate highways is as necessary a condition for achieving the maximum economic development potential as public investments in education, workforce and other transportation assets.

Miami-Dade County's external marketplace consists of the surrounding Florida counties, the national market and global economies where the County's products and services have a comparative advantage. In essence, a regional economy like Miami-Dade generates income and wealth by competitively "exporting" production outside its legal boundaries (e.g. outside of Miami-Dade County). **Productivity growth and seamless intra-urban connectivity to these external markets are both necessary conditions for maximizing economic development potential, and therefore, the standard of living of County residents.**

Furthermore, the MDX FY 2015-2019 Five-Year Work Program, through increased time savings of users (see quantification in Section V) noticeably facilitates economic development in Miami-Dade County by steadily decreasing the "dead-weight" costs on users, residents and businesses brought about by traffic congestion in key arterial roads throughout the local economy. The delays and additional fuel costs caused by congestion are critical variables in resident and industry decisions to locate and/or expand to Miami-Dade County. The Work Program plays an integral role in minimizing such inefficiencies thus increasing employment opportunities and Household Income of Miami-Dade County households.

The matrix on the next page highlights the importance of the MDX FY 2015-2019 Five-Year Work Program as a key component to the economic development of Miami-Dade County. These significant contributions to the economic development, that economists term "*externality benefits*" (intangible benefits) that accrue to the society are in addition to the following analysis that presents the quantifiable impacts.

The MDX FY 2015-2019 Five-Year Work Program A Key Foundation of Economic Development in Miami-Dade County



In conclusion, the FY 2015-2019 Five-Year Work Program plays a critical role in strengthening Miami-Dade County's infrastructure and transportation system, thus positioning Miami-Dade as a top business climate in the U.S. for high-wage jobs, providing growing Household Incomes and a higher standard of living for the County's residents and users of the modernized MDX systems.

IV. THE ECONOMIC IMPACTS OF THE MDX FY 2015-2019 FIVE-YEAR WORK PROGRAM: PROVIDING MOBILITY SOLUTIONS TO THE MIAMI-DADE COUNTY COMMUNITY

A. Methodology

The investments of the MDX FY 2015-2018 Five-Year Work Program generate economic impacts that extend beyond those directly related to the projects. These "spillover" or multiplier impacts are the result of each business activity's supply relationships with other firms operating within the region, the proportion of business value added¹ that accrues to households in the form of labor and capital income, and the propensity of households to spend income on goods produced within Miami-Dade County.

Economic models that explicitly account for inter-industry linkages (supply relationships), the generation of labor and capital income, and the spending of household income have been used since the 1960's to estimate the contribution that a particular business or industry makes to the general economy. These "input-output" models recognize that as an industry experiences an increase in the demand for its products or services, it in turn needs more goods and services from its suppliers and must increase its purchases from other industries in the economy. The effect on regional production resulting from successive rounds of inter-industry linkages is referred to as the *indirect* effect. The resulting increases in regional production also lead to expansions in employment and Household Income, and the increases in Household Income lead to increases in consumer spending, further expanding sales and production throughout the regional economy. The latter economic impacts are referred to as the *induced effects*. The successive waves of production, spending and more production result in economic *multiplier effects*, where the final or total increase in regional production, income and employment, respectively, is larger than the initial (or "*direct*") increase in production, income and employment. The total economic contribution of the MDX FY 2015-2019 Five-Year Work Program, therefore, is comprised of a direct effect, an indirect effect and an *induced* effect.

The IMPLAN Group, Inc. (IMPLAN) provides the software and basic data needed to formulate the economic multiplier model developed for this study. IMPLAN has been providing economic multiplier models for regional economic impact analysis since 1985². Models developed using IMPLAN software have been widely used by private

¹"Value added" refers to the difference between business revenues and the cost of non-labor and non-capital inputs used to produce goods and/or services.

²Information on the IMPLAN Group models and the company history can be found at <u>www.implan.com</u>

sector and academic economists and by Federal, State and Local government agencies. The Washington Economics Group, Inc. (WEG) IMPLAN model for the region is based on the latest U.S. input-output tables as well as income and employment data for Florida from the U.S. Department of Commerce.

B. Estimated Economic Impacts from the MDX FY 2015-2019 Five-Year Work Program

Based on the professionally accepted economic model for Miami-Dade County, the *direct* economic impact of MDX's Work Program is comprised of all the expenditures (investments) to be made during the FY 2015-2019 period. These expenditures include all amounts paid for project development, final design, construction and right-of-way (ROW) acquisition. With the assistance of MDX, WEG obtained information on expenditures for each phase of the planned highway construction projects. During the next five fiscal years (2015–2019), MDX expects to invest \$879.2 million on highway improvement projects. Of this total, \$23.5 million is budgeted for the acquisition of private real estate for highway ROW. These property acquisition expenditures for goods and services. The remaining \$856 million in expenditures constitute MDX's *direct* economic impact in generating Employment, Household Income and Total Economic Impact through the Work Program.

The *direct, indirect* and *induced* economic impacts of the MDX FY 2015-2019 Five-Year Work Program investments were calculated using an extended input-output model of Miami-Dade County's economy. These comprehensive economic impacts are summarized in Table 1 below.

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Impact on:	Direct	Indirect & Induced	Total Impact
Employment (Jobs)	5,436	4,990	10,426
Household Income (\$ Millions)	\$303	\$248	\$551
Gross Domestic Product (Value Added-\$ Millions)	\$391	\$400	\$791
State & Local Tax Revenues (\$ Millions)			\$152
Total Economic Impact (\$ Millions)	\$856	\$629	\$1,485

Table 1. Summary of the Economic Impacts of the MDX FY 2015-2019 Five-Year WorkProgram in Miami-Dade County

Total may not equal the sum of all due to rounding. See detailed tables in Appendix II. Source: The Washington Economics Group, Inc. (WEG)

The Total Economic Impact resulting from MDX highway infrastructure investments and related activities are important to the County's overall economic well-being. An estimated 10,426 jobs result *directly* or *indirectly* from MDX's projects contained in the FY 2015-2019 Five-Year Work Program. The analysis that follows presents specific categories of the economic impacts summarized in Table 1 on the previous page.

C. Employment Impacts: MDX FY 2015-2019 Five-Year Work Program Supports 10,426 Jobs in Miami-Dade County

The number of jobs created by the MDX Five-Year Work Program investments and activities is summarized in Table 2. Of the 5,436 jobs *directly* generated by the Work Program (shown in Table 1), 83 percent are in Construction sector and related industries that supply the goods and services used in construction, while the remaining 17 percent are in the broadly defined category of Knowledge-Based Services, such as Engineering, Architecture, Legal Services and others. **The total number of jobs**, *directly* or *indirectly*, supported by MDX Work Program spending is estimated at 10,426 – making a significant contribution to employment opportunities for Miami-Dade residents.

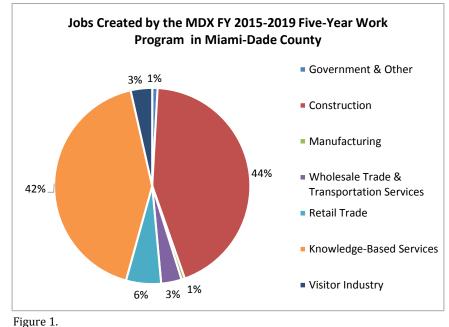
Industry	Jobs Supported
Construction	4,559
Knowledge-Based Services*	4,394
Retail Trade	602
Visitor Industry	369
Wholesale Trade & Transportation Services	352
Government & Other	92
Manufacturing	57
Total	10,426

Table 2. Employment Impacts Created by the MDX FY 2015-2019 Five-Year WorkProgram in Miami-Dade County

Note: Total may not equal the sum of all due to rounding. See detail in Appendix II, Table A-1. Source: The Washington Economics Group, Inc. (WEG)

As illustrated in Figure 1 on the next page, employees supported by the economic activities of the MDX FY 2015-2019 Five-Year Work Program investments are found in a wide variety of industries and represent a broad spectrum of occupations. Forty-four

percent (44) of the jobs are in the Construction sector. Forty-two percent (42) are in the Knowledge-Based Services sector, such as jobs found in engineering, architectural and business services firms. About 6 percent are in the Retail Trade sector, with the remainder spread throughout other sectors of the region's economy. **Therefore, these investments are an important provider of job opportunities for Miami-Dade County residents in a wide variety of occupations**.



Source: The Washington Economics Group, Inc. (WEG)

D. Generator of Household Income: The FY 2015-2019 Five-Year Work Program Contributes to County Residents' Pay Checks

MDX's Five-Year Work Program is also an important generator of Household Income for Miami-Dade residents. This is quantified in Table 3 on the next page. The Work Program Investments for MDX capital projects will generate approximately \$551 million in Household Income in the County between 2015 and 2019. An estimated \$246 million, or 44 percent, is created in the Construction Sector and construction-related industries. The broadly defined Knowledge-Based Services sector creates \$240 million, or 43 percent, of the total Household Income impact as shown in Figure 2 in the following page.

Industry	Total Impact
Construction	\$245,653
Knowledge-Based Services*	239,602
Retail Trade	21,809
Wholesale Trade & Transportation Services	20,398
Visitor Industry	10,614
Government & Other	9,317
Manufacturing	3,357
Total	\$550,750

Table 3. Household Income Impacts Arising from the MDX FY 2015-2019 Five-YearWork Program in Miami-Dade County (\$ Thousands)

Note: Total may not equal the sum of all due to rounding. See detail in Appendix II, Table A-2. Source: The Washington Economics Group, Inc. (WEG)

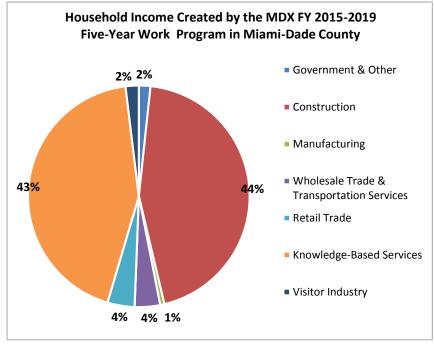


Figure 2.

Source: The Washington Economics Group, Inc. (WEG)

^{*}Major industries under this category are: Information, Finance and Insurance, Real Estate, Professional, Administrative Services and Arts, Entertainment & Recreation.

E. Gross Domestic Product (Value-Added) Impacts of MDX: Significant for Local Productivity and Competitiveness

Value added is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes³. Value added is also the principal source of income to households and a key measure of the MDX FY 2015-2019 Five-Year Work Program investments contribution to Miami-Dade's economy. Miami-Dade County's economic output is measured by its aggregate value added or Gross Domestic Product (GDP). Table 4 below highlights the value-added impacts generated by MDX's Work Program. These investments will produce a net contribution to Miami-Dade's GDP of \$791 million. By this measure the Five-Year Work Program facilitates the County's drive to create a high-value added, high-wage economy.

The greatest value-added impacts are generated in the Knowledge-Based Services sector where close to \$351 million, or 44 percent, of the total is created. The Construction sector generates \$333 million, or 42 percent, followed by the Wholesale Trade and Transportation Services sector, which generates \$34 million, or 4 percent, with the remainder spread throughout other sectors of the region's economy, illustrated in Figure 3 that follows on the next page.

Industry	Total Impact		
Knowledge-Based Services*	\$350,669		
Construction	332,660		
Wholesale Trade & Transportation Services	34,262		
Retail Trade	32,900		
Government & Other	18,652		
Visitor Industry	14,860		
Manufacturing	6,946		
Total	\$790,949		

Table 4. GDP (Value-Added) Impacts Arising from the MDX FY 2015-2019 Five-YearWork Program in Miami-Dade County (\$ Thousands)

Note: Total may not equal the sum of all due to rounding. See detail in Appendix II, Table A-3. Source: The Washington Economics Group, Inc. (WEG)

³Aggregate value added also includes compensation to government workers.

^{*}Major industries under this category are: Information, Finance and Insurance, Real Estate, Professional, Administrative Services and Arts, Entertainment & Recreation.

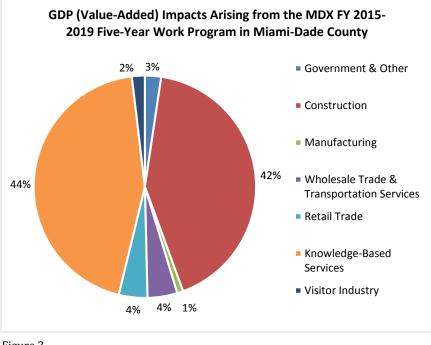


Figure 3. Source: The Washington Economics Group, Inc. (WEG)

F. The Total Economic Impact of the MDX FY 2015-2019 Five-Year Work Program Investment is a Significant \$1.5 Billion

A comprehensive measure of the Total Economic Impact is *Gross Economic Output* representing the sum of gross revenues (receipts) of private firms plus the value of government services (valued at cost). Table 5 on the following page highlights the Total Economic Impact of MDX's Five-Year Work Program. The Work Program investments will create close to \$1.5 billion in Total Economic Impact benefiting Miami-Dade County and its residents.

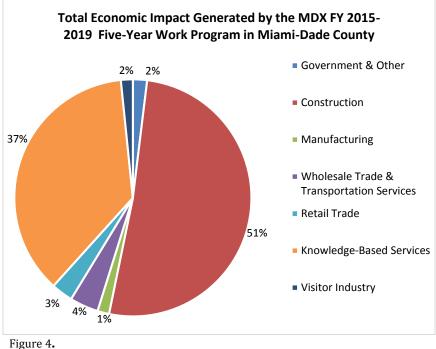
As shown in Figure 4 on the next page, the greatest value-added impacts are generated in the Construction sector where \$762 million, or 51 percent, of the total is created. The Knowledge-Based Services sector generates \$545 million, or 37 percent, followed by the Wholesale Trade and Transportation Services sector, which generates \$58 million, or 4 percent, with the remainder spread throughout other sectors of the region's economy.

Table 5. Total Economic Impact Generated by the MDX FY 2015-2019 Five-Year Work Program in Miami-Dade County (\$ Thousands)	
Inductor	Total Impact

. .

Industry	Total Impact
Construction	\$761,582
Knowledge-Based Services*	544,656
Wholesale Trade & Transportation Services	57,977
Retail Trade	43,917
Government & Other	28,665
Visitor Industry	24,145
Manufacturing	23,593
Total	\$1,484,535

Note: Total may not equal the sum of all due to rounding. See detail in Appendix II, Table A-4. Source: The Washington Economics Group, Inc. (WEG)



Source: The Washington Economics Group, Inc. (WEG)

^{*} Major industries under this category are: Information, Finance and Insurance, Real Estate, Professional, Administrative Services and Arts, Entertainment & Recreation.

G. The MDX FY 2015-2019 Five-Year Work Program Investment Also Results in Significant Fiscal Contributions

The increases in economic activity generated by the MDX Five-Year Work Program investments produce significant Fiscal Revenues for Federal, State and Local governments as highlighted in Table 6 below. Over \$152 million of total Fiscal Revenues result from the Work Program investments. Of this total, more than \$109 million, or 72 percent, flow to the Federal government, with the remaining \$43 million, or 28 percent, of tax revenues allocated to the State of Florida and Miami-Dade County governments.

Taxes Paid By:	Federal Taxes	State/Local Taxes	Total Taxes			
Labor	\$45,301	\$848	\$46,150			
Capital	\$4,552	\$0	\$4,552			
Indirect Business Taxes	\$6,251	\$37,022	\$43,273			
Households	\$40,299	\$3,592	\$43,891			
Corporations	\$12,958	\$1,617	\$14,575			
Total:	\$109,361	\$43,079	\$152,441			

Table 6. Fiscal Contributions Arising from the MDX FY 2015-2019 Five-
Year Work Program in Miami-Dade County (\$ Thousands)

Note: Total may not equal the sum of all due to rounding. Source: The Washington Economics Group, Inc. (WEG)

V. ANNUAL (RECURRING) ECONOMIC IMPACTS OF THE IMPROVED MOBILITY ARISING FROM THE MDX FY 2015-2019 FIVE-YEAR WORK PROGRAM FOR MIAMI-DADE COUNTY

When the MDX FY 2015-2019 Five-Year Work Program is completed, significant benefits, both quantifiable and non-quantifiable, will accrue to the community **on an ongoing basis** (each year, recurring). The primary benefits of the Work Program are the increased mobility and greater connectivity that the improved MDX Highway network provides to the residents of communities that it serves, creating positive economic development impacts. MDX and their advisors estimate that when the 2015-2019 Five-Year Work Program is completed, the improved mobility will translate into 8,767 hours of travel time savings daily for travelers utilizing the MDX System and 3,200,000 hours of time saved annually. **Valuing these time savings at the current average wage in Miami-Dade County of \$17.56 per hour, these time savings are valued at a minimum of over \$56.2 million per year for users of the MDX system.**

The annual, recurring benefits encompass all MDX system users and constitute the *direct* impacts of the increased mobility from the FY 2015-2019 Five-Year Work Program. The benefits of these time savings ultimately accrue to households, either through improved productivity in employment-related activities that utilize the MDX highway system, or directly to households in the form of faster transit times while commuting or undertaking leisure activities in Miami-Dade County or elsewhere. The IMPLAN economic model of the County economy attributes all of these benefits to households (where they are reflected in *direct* Household Income), and then flows through undiminished to *direct* GDP (Value Added) and ultimately to Total Economic Impact on the County.

In addition to the *direct* impacts, *indirect* and *induced* economic impacts resulting from the improved mobility were calculated using an extended input-output model of the Miami-Dade County economy. These comprehensive *direct, indirect* and *induced* economic impacts are summarized in Table 7 on the following page.

Table 7. Summary of the Annually Recurring Economic Impacts Arising from the Improved Mobility & Time Savings of the MDX FY 2015-2019 Five-Year Work Program in Miami-Dade County

Impact on:	Direct	Indirect & Induced	Total Impact
Employment (Jobs)	5,622	329	5,951
Household Income (\$ Millions)*	\$56	\$15	\$71
Gross Domestic Product (Value Added \$ Millions)*	\$56	\$27	\$83
State & Local Tax Revenues (\$ Millions)			\$16
Total Economic Impact (\$ Millions)*	\$56	\$41	\$97

**Direct* Household Income quantifies the valuation of the traffic time savings resulting from the Work Program completion.

Note: Total may not equal the sum of all due to rounding. Source: The Washington Economics Group, Inc. (WEG)

A. Employment Impacts: Improved Mobility Resulting from the MDX FY 2015-2019 Five-Year Work Program Supports 5,951 Permanent Jobs on an Ongoing Basis

The number of permanent jobs arising from the completion of the MDX FY 2015-2019 Five-Year Work Program is a significant 5,951. An estimated 5,622 jobs are *directly* generated by the improved mobility provided by the FY 2015-2019 Work Program and an additional 329 jobs are supported via *indirect* and *induced* effects. Most of these jobs are expected to occur in the surrounding communities of the project and in other communities throughout Miami-Dade County. **The total number of jobs**, *directly*, *indirectly* or *induced*, supported by the improved mobility arising from the MDX FY 2015-2019 Five-Year Work Program is estimated at 5,951 – making a significant contribution to employment opportunities for Miami-Dade County residents.

B. The Increased Mobility Resulting from the MDX FY 2015-2019 Five-Year Work Program will be an Important Generator of Household Income that Improves the Standard of Living of Residents

The completion of the MDX FY 2015-2019 Work Program and the associated increased mobility will result in opportunities that will be important generators of Household Income for working families in Miami-Dade. In addition to the \$56 million of Household Income *directly* generated each year by the improved mobility, \$15 million

or 21 percent, is created by *indirect* and *induced* economic activities. In total, the improved mobility will generate over \$71 million in Household Income each year once the Work Program is completed.

C. The Recurring Gross Domestic Product (Value-Added) Impacts Arising from the Improved Mobility is a Significant Increase in Countywide Economic Activity

Recurring value added is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes on an annual basis. Value added is also the principal source of income to households and a key measure of the MDX FY 2015-2019 Five-Year Work Program's ongoing contributions to the economy. An area's economic output is measured by its aggregate value added or Gross Domestic Product (GDP). The value-added recurring impacts generated by the improved mobility resulting from the MDX FY 2015-2019 Work Program create a net contribution to the Miami-Dade economy of close to \$83 million per year. By this measure, completion of the improved mobility that results from the MDX FY 2015-2019 Five-Year Work Program aids in the County's drive to create and sustain a high- value added, high-wage economy.

D. The Recurring Total Economic Impact Arising from the Improved Mobility Associated with the MDX FY 2015–2019 Five-Year Work Program is a Positive \$97 Million Each Year

A comprehensive measure of Total Economic Impact is Gross Economic Output, representing the sum of gross revenues (receipts) of private firms plus the value of government services (valued at cost). The improved mobility results in economic activities that represent a significant \$97 million in annual Total Economic Impact to the economy.

E. Annual Fiscal Contributions of the Resulting Economic Activities are Also Important

The recurring economic activities attributable to the improved mobility resulting from the MDX FY 2015-2019 Five-Year Program will result in significant tax and other government revenues each year for Federal, State and Local governments as shown in Table 8 on the next page. Over \$16 million of Fiscal Revenues are generated each year by these activities. Of this total, over \$13 million, or 82 percent, flows to the Federal government, with the remaining \$3 million, or 18 percent, of tax revenues allocated to State and Local governments.

Table 8. Fiscal Contributions Arising from the Improved Mobility & Time
Savings of the MDX FY 2015-2019 Five-Year Work Program
in Miami-Dade County (\$ Thousands)

in Main Date County (\$ 11003an03)							
Taxes Paid By:	Federal Taxes	State/Local Taxes	Total Taxes				
Labor	\$7,354	\$138	\$7,492				
Capital	\$74	\$0	\$74				
Indirect Business Taxes	\$394	\$2,333	\$2,727				
Households	\$5,076	\$452	\$5,528				
Corporations	\$581	\$73	\$654				
Total:	\$13,479	\$2,996	\$16,475				

Note: Total may not equal the sum of all due to rounding. Source: The Washington Economics Group, Inc. (WEG) APPENDIX I: Methodology

IMPLAN Model

The multiplier impacts calculated by the IMPLAN model are based on input-output methodology, which explicitly considers the inter-industry linkages that exist within an economy. Each industry needs labor and inputs from other industries in order to produce economic output. Whenever an industry experiences an increase in the demand for its output, many other industries within that economy indirectly experience an increase in demand as well because of these inter-industry linkages. This increase in demand that results from the need for material inputs is called the *indirect effects*. In addition, an increase in production within a region also leads to an increase in household income through the hiring of workers, which in turn generates further demands for goods and services within the region. Firms also need to expand their base of physical capital to meet higher levels of demand, and this too stimulates regional economic growth. The latter effects are referred to as *induced effects*. The inter-industry linkages and the induced effects on consumer and capital spending lead to successive rounds of production, and this process results in an increase in output that exceeds the initial change in demand, or a *multiplier effect*. Similarly, the increase in household income will exceed the initial payroll increase encountered in the industry that experienced the original increase in demand. The total change in employment in the regional economy is a multiple of the direct change in employment.

The following represents the system of equations that comprise the regional economy in an extended input-output model like IMPLAN:

$$\begin{aligned} x_1 &= a_{11}x_1 + a_{12}x_2 + a_{13}x_3 + \dots + a_{1k}x_k + a_{1h}x_h + a_{1i}x_i + f_1 \\ x_2 &= a_{21}x_1 + a_{22}x_2 + a_{23}x_3 + \dots + a_{2k}x_k + a_{2h}x_h + a_{2I}x_I + f_2 \\ x_3 &= a_{31}x_1 + a_{32}x_2 + a_{33}x_3 + \dots + a_{3k}x_k + a_{3h}x_h + a_{3i}x_i + f_3 \\ \vdots \\ x_k &= a_{k1}x_1 + a_{k2}x_2 + a_{k3}x_3 + \dots + a_{kk}x_k + a_{kh}x_h + a_{ki}x_i + f_k \\ x_h &= a_{h1}x_1 + a_{h2}x_2 + a_{h3}x_h + \dots + a_{hk}x_k + a_{hh}x_h + a_{hi}x_i + f_h \\ x_i &= a_{i1}x_1 + a_{i2}x_2 + a_{i3}x_h + \dots + a_{ik}x_k + a_{ih}x_h + a_{ii}x_i + f_i \end{aligned}$$

The variables x_1 to x_k represent total production of output in each industry. The coefficients a_{ij} represent the purchases from industry "i" that are needed to produce a dollar of output in industry "j". These are known as the *direct requirement* coefficients. The variable x_h refers to household income and the coefficients a_{ih} refer to the average amount of household income spent on purchases from industry "i", or the *average propensities to consume*. The coefficients a_{hi} are similar to the inter-industry purchases (a_{ij} 's), but they represent the household income that is generated from each dollar of output produced in industry "i". Similarly the variable x_i represents regional spending on capital goods, and the coefficients a_{ij} represents the spending on capital goods for each dollar spent on capital goods within the region. The variables f_j represent the exogenous final demand faced by each industry, respectively.

This system of equation reduces, using matrix notation, to the following solution for industry output and household income:

$$X = (I - A)^{-1} F$$

X is the vector of industry outputs plus household income and F is a vector of exogenous final demands. The "output multipliers" (i.e., the change in industry output and household income that results from a change in final demand for the output of a particular industry) are given in the columns of the (I-A)⁻¹ matrix. The IMPLAN software calculates these multipliers for counties, states and other sub-state regions. These multipliers can be used to provide a sense of the economic importance of an industry or an economic activity in a given region. The multipliers impacts for gross state product, labor and capital income and the government revenue impacts are derived from the basic output multipliers given by (I-A)⁻¹.

The IMPLAN model uses historical relationships between public-sector revenues and regional economic output in order to estimate the public-sector revenue impact resulting from the establishment of a new, or expansion of an existing economic activity.

APPENDIX II: DETAILED IMPACT TABLES

DETAILED IMPACT TABLES

Within the main portion of the study the economic impacts are presented at a summary level. *Direct, Indirect,* and *Induced* Impacts are aggregated into the Total Impact, and Industries are summarized by function. The following tables present detailed impacts at the two-digit NAICS industry classification level.

The following industry summarizations are used in the study:

- 1. **Government and Other** is the sum of: Agriculture & Forestry, Mining, Utilities, Company Management, and Government & Other
- 2. **Knowledge-Based Services** is the sum of: Information, Finance & Insurance, Real Estate, Professional Services, Administrative, Educational Services, Health & Social Services, Arts, Entertainment & Recreation, and Other Services
- 3. **Wholesale Trade & Transportation Services** is the sum of: Wholesale Trade, and Transportation & Warehousing
- 4. The Accommodation and Food Services sector was renamed to Visitor Industry

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Industry	Impacts			
muusuy	Direct	Indirect	Induced	Total
Agriculture & Forestry	0.0	0.3	1.5	1.8
Mining	0.0	4.9	1.8	6.7
Utilities	0.0	5.2	6.7	11.9
Construction	4,513.9	28.1	17.2	4,559.1
Manufacturing	0.0	48.2	9.0	57.2
Wholesale Trade	0.0	100.7	75.7	176.3
Retail Trade	0.0	153.5	448.9	602.4
Transportation & Warehousing	0.0	111.4	64.5	175.9
Information	0.0	41.5	36.8	78.3
Finance & Insurance	0.0	157.1	206.1	363.2
Real Estate	0.0	132.3	149.0	281.4
Professional Services	922.4	848.3	102.6	1,873.3
Company Management	0.0	21.0	8.4	29.4
Administrative	0.0	434.6	146.8	581.4
Educational Services	0.0	1.9	98.5	100.4
Health & Social Services	0.0	0.0	569.0	569.0
Arts, Entertainment & Recreation	0.0	20.4	78.5	98.9
Accommodation & Food Services	0.0	98.9	270.0	369.0
Other Services	0.0	222.1	226.0	448.1
Government & Other	0.0	16.1	26.2	42.3
Total:	5,436.3	2,446.5	2,543.2	10,426.0

Industry	Impacts			
muustry	Direct	Indirect	Induced	Total
		<i>ф</i> 4 4 0	#00.0	#0 C 4
Agriculture & Forestry	\$0.0	\$14.2	\$82.2	\$96.4
Mining	0.0	278.4	19.2	297.6
Utilities	0.0	666.1	869.7	1,535.8
Construction	243,170.3	1,494.4	987.9	245,652.6
Manufacturing	0.0	2,868.0	488.5	3,356.5
Wholesale Trade	0.0	7,477.2	5,620.1	13,097.3
Retail Trade	0.0	5,723.3	16,085.2	21,808.5
Transportation & Warehousing	0.0	4,502.2	2,798.8	7,301.0
Information	0.0	3,854.1	3,246.0	7,100.1
Finance & Insurance	0.0	11,048.9	13,566.2	24,615.1
Real Estate	0.0	5,451.7	3,098.3	8,550.0
Professional Services	59,975.3	58,528.3	7,849.0	126,352.6
Company Management	0.0	2,666.7	1,064.6	3,731.3
Administrative	0.0	11,980.3	3,989.1	15,969.4
Educational Services	0.0	82.3	4,212.4	4,294.7
Health & Social Services	0.0	1.6	30,802.2	30,803.8
Arts, Entertainment & Recreation	0.0	777.1	2,585.9	3,363.0
Accommodation & Food Services	0.0	2,852.2	7,761.8	10,614.0
Other Services	0.0	10,235.1	8,318.5	18,553.6
Government & Other	0.0	1,406.3	2,249.4	3,655.7
Total:	\$303,145.6	\$131,908.4	\$115,695.0	\$550,749.0

Industry	Impacts			
	Direct	Indirect	Induced	Total
Agriculture & Forestry	\$0.0	\$19.0	\$103.9	\$122.9
Mining	0.0	841.9	17.6	859.5
Utilities	0.0	4,085.3	5,377.3	9,462.6
Construction	329,196.4	2,043.9	1,419.2	332,659.5
Manufacturing	0.0	5,965.5	980.9	6,946.4
Wholesale Trade	0.0	14,015.3	10,534.3	24,549.6
Retail Trade	0.0	8,348.7	24,551.5	32,900.2
Transportation & Warehousing	0.0	5,881.0	3,830.9	9,711.9
Information	0.0	9,352.0	7,147.3	16,499.3
Finance & Insurance	0.0	21,998.4	22,754.9	44,753.3
Real Estate	0.0	19,156.4	46,058.0	65,214.4
Professional Services	62,056.7	67,928.1	10,426.7	140,411.5
Company Management	0.0	3,123.3	1,246.9	4,370.2
Administrative	0.0	13,789.1	4,711.0	18,500.1
Educational Services	0.0	91.0	4,707.5	4,798.5
Health & Social Services	0.0	2.6	34,560.2	34,562.8
Arts, Entertainment & Recreation	0.0	977.0	3,793.2	4,770.2
Accommodation & Food Services	0.0	4,002.4	10,857.3	14,859.7
Other Services	0.0	11,734.7	9,424.4	21,159.1
Government & Other	0.0	1,445.1	2,391.8	3,836.9
Total:	\$391,253.1	\$194,800.7	\$204,894.8	\$790,948.6

To do store	Impacts			
Industry	Direct	Indirect	Induced	Total
		* 4 4 0		+20 C 0
Agriculture & Forestry	\$0.0	\$44.8	\$161.2	\$206.0
Mining	0.0	1,405.2	268.5	1,673.7
Utilities	0.0	5,933.7	7,635.8	13,569.5
Construction	754,608.0	4,196.1	2,777.5	761,581.6
Manufacturing	0.0	19,779.7	3,813.3	23,593.0
Wholesale Trade	0.0	21,260.7	15,980.2	37,240.9
Retail Trade	0.0	11,224.1	32,692.6	43,916.7
Transportation & Warehousing	0.0	13,070.3	7,665.4	20,735.7
Information	0.0	18,077.7	13,817.0	31,894.7
Finance & Insurance	0.0	36,497.2	43,516.1	80,013.3
Real Estate	0.0	27,353.4	60,123.8	87,477.2
Professional Services	101,089.0	100,467.1	13,465.7	215,021.8
Company Management	0.0	4,724.6	1,886.2	6,610.8
Administrative	0.0	21,442.7	7,612.9	29,055.6
Educational Services	0.0	138.6	6,929.0	7,067.6
Health & Social Services	0.0	3.5	53,975.9	53,979.4
Arts, Entertainment & Recreation	0.0	1,462.2	5,618.6	7,080.8
Accommodation & Food Services	0.0	6,504.1	17,641.2	24,145.3
Other Services	0.0	18,231.1	14,834.5	33,065.6
Government & Other	0.0	2,337.6	4,267.7	6,605.3
Total:	\$855,697.0	\$314,154.4	\$314,683.1	\$1,484,534.5

Appendix III:

The Washington Economics Group, Inc. Project Team and Qualifications



J. Antonio Villamil Founder and Principal Advisor

Tony Villamil is a nationally recognized economist, with over thirty-five years of successful career as a business economist, university educator and high-level policymaker for both federal and state governments. He was appointed by President George H. W. Bush as US Undersecretary of Commerce for Economic Affairs, receiving full US Senate confirmation of the Presidential appointment. Tony is the Founder and Principal of a successful economic consulting practice, The Washington Economics Group, Inc. (WEG), a Florida-based firm established in 1993 upon his return to the State from his public service in Washington, D.C.

Dr. Villamil is the immediate past Chairman of the Governor's Council of Economic Advisors of Florida, and during 1999-2000, he was selected by Governor Bush as his first Director for Tourism, Trade and Economic Development. Presently, he is on the Board of Directors of the Spanish Broadcasting System (SBS), Mercantil Commercebank, NA, and Pan-American Life Insurance Group (PALIG). He was most recently appointed by the US Secretary of Commerce to serve in the Florida District Export Council.

Among other professional and civic leadership positions, Tony was selected in 2008 as the founding Dean of the School of Business of St. Thomas University, serving successfully until December 31st, 2013 at which time he resigned to return full time to his growing economic consulting practice. He is currently Chairman of the Economic Roundtable of the Beacon Council—Miami-Dade County's official economic development organization. Dr. Villamil is also Senior Research Fellow of Florida TaxWatch, an established fiscal and policy research organization of the State.

Tony earned bachelor and master degrees in Economics from Louisiana State University (LSU), where he also completed coursework for the PhD degree. In 1991, Florida International University (FIU) awarded him a doctoral degree in Economics (hc), for "distinguished contributions to the Nation in the field of economics." He frequently speaks to business, government and university audiences on economic topics.

Dr. Villamil is resident of Coral Gables, Florida, where he lives with his family, traveling frequently throughout Florida, the US and globally to conduct research and presentations for clients of the Washington Economics Group.



Charles K. Yaros Associate Consultant for Economics

Chuck Yaros is an Associate Consultant for Economics at The Washington Economics Group, Inc. (WEG). He serves as economic consultant in the areas of financial economics and economic impact studies. Prior to joining WEG he was a Vice President and Portfolio Strategist at Shay Financial Services in Miami where he specialized in developing, implementing and managing interest rate risk and capital optimization strategies for financial institutions.

Mr. Yaros has over 20 years of experience as a business and financial economist, having worked in a number of positions of progressive responsibility in the South Florida business community. Additionally, he has spoken and taught courses on financial risk management.

Chuck received his undergraduate degree in Economics with Honors from Trinity College and his Master's degree in Economics from Duke University, where he also completed course work for the Ph.D. degree. Chuck and his family are residents of Coral Gables, Florida.



Verity Finch Manager of Client Services

Verity Finch is the Manager of Client Services at The Washington Economics Group, Inc. (WEG). She serves as WEG's client liaison, working with clients to facilitate their business interests and achieve their goals through exclusive economics and market research advisor services.

Verity began her career in England as a data analyst at Equity Insurance Group, an international specialist motor insurer. Most recently, she served as Assistant for marketing and research to J. Antonio Villamil in his former role as Dean at St. Thomas University, School of Business. In her role in the Dean's Office at St. Thomas University, Verity served as the coordinator of the Business Executives Advisory Council, managed the successful Entrepreneurship Week Program in liaison with executives and faculty, and conducted numerous research and marketing assignments.

Verity is recognized for her leadership, serving as President of the Business Club of St. Thomas University and as a speaker on business and women career issues.

Verity received her Master of Business Administration (MBA) degree from St. Thomas University in Miami, and holds a first-class Law Degree (LLB) from Anglia Ruskin University, School of Law, in England.



Haydee M. Carrion Executive and Senior Research Assistant

Haydee M. Carrion is Executive and Senior Research Assistant at The Washington Economics Group, and has been Executive Assistant to Dr. Villamil since the firm's founding in 1993. She has senior level expertise in multi-media presentations and in the preparation and design of complex reports and documents for clients, utilizing the latest technologies

In 2012, WEG promoted her to Senior and Project Research Assistant to the firm, given outstanding performance in web-based research and in assistance to the firm's Principal in the preparation of audio-visual presentations for clients and in desktop publishing. Ms. Carrion is fluent in Spanish, with experience in the preparation of economics and business documents in the language.

Ms. Carrion has been with WEG for 20 years. Ms. Carrion holds degrees in Business Administration and Office System Technologies from Miami-Dade College.

The Washington Economics Group, Inc. (WEG) has been successfully meeting client objectives since 1993 through economic consulting services for corporations, institutions and governments of the Americas. We have the expertise, high-level contacts, and business alliances to strengthen your competitive positioning in the growing marketplaces of Florida and Latin America.

Our roster of satisfied clients, over the past 20 years, includes multinational corporations, financial institutions, public entities, and non-profit associations expanding their operations in the Americas.

EXCLUSIVE CONSULTING APPROACH

Each client is unique to us. We spend considerable time and effort in understanding the operations, goals, and objectives of clients as they seek our consulting and strategic advice. We are not a mass-production consulting entity nor do we accept every project that comes to us. We engage a limited number of clients each year that require customized consulting services in our premier areas of specialization. These premier and exclusive services are headed by former U.S. Under Secretary of Commerce, Dr. J. Antonio Villamil, with over thirty-five years of experience as a business executive and as a senior public official of the U.S. and most recently of Florida.

PREMIER CONSULTING SERVICES

<u>Comprehensive Corporate Expansion Services</u>. Our seamless and customized service includes site selection analysis, development of incentive strategies and community and governmental relations.

<u>Economic Impact Studies</u> highlight the importance of a client's activities in the generation of income, output and employment in the market area serviced by the entity. These studies are also utilized to analyze the impact of public policies on key factors that may affect a client's activities such as tax changes, zoning, environmental permits and others.

<u>Strategic Business Development Services</u>. These services are customized to meet client objectives, with particular emphasis in the growing marketplaces of Florida, Mexico, Central and South America. Recent consulting assignments include customized marketing strategies, country risk assessments for investment decisions and corporate spokesperson activities and speeches on behalf of the client at public or private meetings.

For a full description of WEG capabilities and services, please visit our website at: <u>www.weg.com</u>

The Washington Economics Group, Inc. **Representative Client List 1993-2014**

Multinational Corporations

Ameritech International Bureau Veritas (BIVAC) Carrier Esso Inter-America FedEx Latin America Genting Group Hyatt IBM Joseph E. Seagram & Sons, Inc. (Vivendi) KPMG Lockheed Martin

Lucent Technologies MasterCard International MediaOne/AT&T Medtronic Merck Latin America Microsoft Latin America Motorola Phelps Dodge SBC Communications Telefonica Data Systems Visa International

Construction and Real Estate Development Firms

Areas USA, Inc. Barron Collier Companies Berkowitz Development Group Boca Developers CDS International Century Homebuilders Codina Realty Empire World Towers, LLC Ferro Investment Group, LLC Flagler Development Florida East Coast Realty Inc. Inland Port Systems, LLC

Landstar Development LXR Luxury Resorts Miami Asset Management Company, Inc. Miapolis, LLC Odebrecht Construction, Inc. Palazzo Las Olas Group, LLC The Allen Morris Company The Related Group, Inc. The Rouse Company The St. Joe Company Trammel Crow Company WCI Development Companies

Rocky Mountain College of Art and Design

UM's Rosenstiel School of Marine and Atmospheric Science

Sistema Universitario Ana G. Méndez

Universidad Politécnica de Puerto Rico

University of South Florida/ENLACE

Kimley-Horn and Associates

Parsons Brincherhoff

St. Thomas University

University of Florida

University of Miami

Engineering, Planning and Design Firms Golder Associates

College and Universities

AECOM (DMJM Harris) Atkins (PBSJ) CDM Smith (Wilbur Smith Associates)

Alabama State University Barry University Embry-Riddle Aeronautical University Florida Agricultural & Mechanical University Florida International University Full Sail University Keiser University Los Angeles Film School Miami-Dade College

Carlton Fields Colson Hicks Eidson DLA Piper Dunbar & Dunbar

Becker & Poliakoff

Gloria Roa Bodin, Esq. Greenberg Traurig, LLP Holland & Knight, LLP Steel Hector & Davis Tew Cardenas, LLP

Financial Institutions

Law Firms

ABN-AMRO Bank Advantage Capital Allen & Company **BNP** Paribas Bank Atlantic Corp. BankUnited, FSB Banque Nationale de Paris Barclays Bank ESJ Capital Partners Espirito Santo Bank Fiduciary Trust International First Union National Bank (Wells Fargo)

Hemisphere National Bank HSBC/Marine Midland International Bank of Miami (First United Bank) Lazard Freres & Co. Mercantil Commercebank N.A. Pan American Life Insurance Group PointeBank, N.A. Seitlin Insurance Sun Trust Corporation The Equitable/AXA Advisors Union Planters Bank of Florida (Regions)

Florida-Based Companies

AmericanAirlines Arena BMI Companies Communikatz Daytona International Speedway Dosal Tobacco Farm Stores Fishkind & Associates Florida Hospital Florida More & Light Flo-Sun Sugar Corp. Greater Miami Convention & Visitors Bureau Greater Fort Lauderdale Alliance

Darlington Raceway Georgia Retail Federation Illinois Retail Merchant Association Indiana Retail Council Kansas Speedway Martinsville Speedway Homestead Miami Speedway Iberia Tiles International Speedway Corporation Jungle Island Mercy Hospital Miami Dolphins Resorts World Miami (RWM) Ron Sachs Communications Sprint of Florida Technology Foundation of the Americas The Biltmore Hotel The Heat Group Ultra Musical Festival

Non-Florida-Based Institutions

Progress Energy Richmond International Raceway Talladega Superspeedway Washington Retail Association Watkins Glen International

Public Institutions and Non-Profit Organizations

Baptist Health South Florida Citizens of Clean Energy City of Plantation City of West Palm Beach Economic Development Commission of Collier County Economic Development Commission of Lee County Economic Development Commission of Mid-Florida Enterprise Florida, Inc. Farm Share, Inc. Flagler Development Florida Bankers Association Florida Citrus Mutual Florida International Bankers Association Florida League of Cities Florida Nursing Homes Alliance Florida Outdoor Advertising Association Florida Ports Council Florida Retail Association Florida Sports Foundation Friends of Miami Marine Stadium Independent Colleges and Universities of Florida (ICUF) Inter-American Development Bank

Jackson Health Systems Jacksonville Chamber of Commerce Louisiana Committee for Economic Development Miami Marine Stadium Miami Museum of Science Miami-Dade County Public Schools Miami-Dade Expressway Authority Miami Downtown Development Authority Port of Miami SEUI Healthcare Florida Space Florida State of Florida SW Florida Regional Chamber of Commerce Sylvester Comprehensive Cancer Center Tampa-Hillsborough Expressway Authority The Beacon Council The Florida Bar The Florida Chamber Foundation United Nations Economic Development Program United Teachers of Dade Visit Florida Zoological Society of Florida

Latin America-Based Institutions

Allied-Domecq, Mexico Association of Peruvian Banks Federation of Inter-American Financial Institutions (FIBAFIN) Fonalledas Enterprises, Puerto Rico Mercantil Servicios Financieros, Venezuela Peruvian Management Institute (IPAE) The Brunetta Group of Argentina