



# The Comprehensive Economic Development Impacts of Venture Capital and Private Equity to the State of Florida

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January 3, 2023

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## I. Executive Summary

- The Washington Economics Group (WEG) was retained by Florida Venture Forum to conduct an independent economic impact Study of both the **qualitative** and **quantitative** economic benefits of Venture Capital and Venture Capital-Backed Private Equity (VC and VC-Backed PE) investment activities in the State of Florida. Florida's Venture Capital industry is essential for the economic development of the State as capital investment supports fast-growth, of technology-enabled companies that enhance industry diversification and high-wage job growth. Florida's VC industry has seen significant growth over the past decade, and this has and continues to support, create and sustain high-wage and high-skill jobs for Floridians.
- For the purpose of this Study, WEG analyzed the impact of all Venture Capital (VC) activity through Florida over the last 10 full years (2012–2021) based on data and investment category definitions provided by Pitchbook. WEG also included "VC-backed" private equity (PE), defined as private equity provided to any company that also received VC funding during this 10-year period. The **quantifiable** economic benefits of this activity include the following four broad categories:

- **Early Stage VC** includes Grants, Accelerator/Incubator investments, Angel, Seed, and all other Early Stage investments as defined by Pitchbook.
- **Later Stage VC** includes all remaining VC not in the "Early-Stage" categories as defined by Pitchbook.
- **Early Stage PE** includes Growth and Expansion Capital as defined by Pitchbook.
- **Later Stage PE** includes all PE not in the "Early-Stage" categories as defined by Pitchbook, including all Buyouts/Leveraged Buyouts (LBOs), Secondary Buyouts, Management Buy-In, Add-On Capital, Public to Private investment and PIPE (Private Investment in Public Equity).

- **The quantifiable economic impacts of VC and VC-Backed PE on Florida extend beyond what is *directly* related to these four categories of spending.** These "spillover" or multiplier impacts are primarily the result of the impact of local industries buying goods and services from other local industries (known as an *indirect* effect), as well as increased labor income and the propensity of households to spend income on goods produced within the State and local areas (known as an *induced* effect). WEG quantified and estimated the *direct*, *indirect* and *induced* comprehensive economic impacts utilizing the widely used IMPLAN Input / Output Methodology.

- **The Total Economic Impact of VC and VC-Backed PE on Florida is \$85.4 billion from 2012 to 2021.** Of this total, \$42.8 billion (or 50 percent) is due to *direct* economic effects, with \$42.6 billion (just under 50 percent) attributable to *indirect* and *induced* economic effects. In addition, this economic activity has supported **465,000 jobs**, generated **\$26.8 billion in Household Income**, **\$43.8 billion in GDP** and **\$9.8 billion in Federal, State & Local Fiscal Revenues** since 2012. This is detailed in Table ES-1 below, which totals these impacts in terms of *direct*, *indirect* and *induced* effects.

**Table ES-1. Summary of the Economic Impacts of VC and VC-Backed PE Investment Activities in the State of Florida by Impact Type (2012–2021)**

Impact on:	Direct	Indirect & Induced	Total Impact
Employment (Jobs)	218,211	246,792	<b>465,003</b>
Household Income (\$ Millions)	\$13,660	\$13,152	<b>\$26,811</b>
GDP (Value Added \$ Millions)	\$20,710	\$23,058	<b>\$43,768</b>
Total Economic Impact (\$ Millions)	\$42,826	\$42,572	<b>\$85,398</b>
Federal, State & Local Fiscal Revenues (\$ Millions)	\$4,536	\$5,252	<b>\$9,788</b>

Note: Total may not equal the sum of all due to rounding.

Source: The Washington Economics Group (WEG)

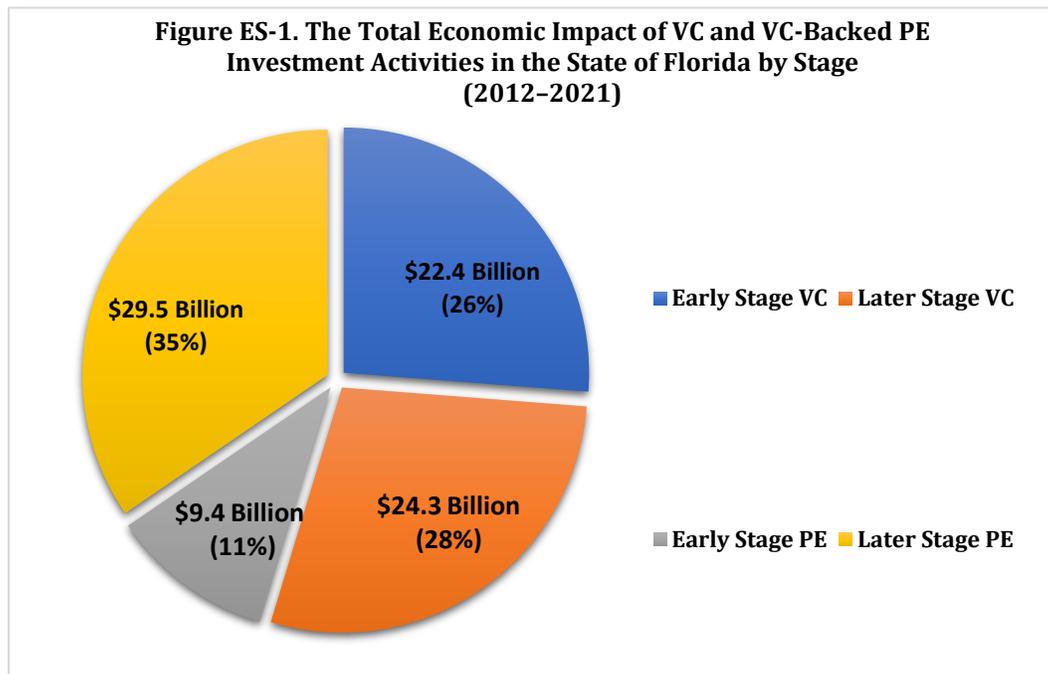
- Although not included as part of the previous table, there has been an additional **\$10.9 billion in VC-backed Mergers and Acquisitions (M&A) since 2012**. There has also been a total of **\$5.3 billion in debt financing** and **\$2.3 billion in Initial Public Offerings (IPOs)** for VC-backed companies throughout this same time period.
- In total, when including private equity that is *not* VC-backed, **there has been \$210 billion in PE funding for all Florida companies since 2012**. Although much of this \$210 billion does not have a tangible connection to the VC space and was thus excluded from the IMPLAN-derived impacts, this funding is very important to the broader financial ecosystem throughout the State. According to the American Investment Council and Ernst & Young, The US private equity sector comprises approximately 6.5 percent of GDP.<sup>1</sup>
- Table ES-2 below and Figure ES-1 on the following page total these impacts by investment stage, including both VC and PE. **Just under 55 percent of the \$85.4 billion in Total Economic Impact are from VC, with the remaining 45 percent of Total Economic Impact due to VC-Backed PE investment.**

<sup>1</sup><https://taxnews.ey.com/news/2021-1061-american-investment-council-releases-ey-report-on-the-economic-footprint-of-the-us-private-equity-sector>

**Table ES-2. Summary of the Economic Impacts of VC/VC-Backed PE Investment Activities in the State of Florida by Stage (2012-2021)**

Impact on:	Early Stage VC	Later Stage VC	Early Stage PE	Later Stage PE	Total Impact
Employment (Jobs)	121,844	132,378	50,310	160,472	<b>465,003</b>
Household Income (\$ Mill.)	\$7,025	\$7,633	\$2,901	\$9,253	<b>\$26,811</b>
GDP (Value Added \$ Mill.)	\$11,468	\$12,460	\$4,735	\$15,104	<b>\$43,768</b>
Total Economic Impact (\$ Mill.)	\$22,377	\$24,311	\$9,239	\$29,471	<b>\$85,398</b>
Federal, State & Local Fiscal Revenues (\$ Mill.)	\$2,565	\$2,787	\$1,059	\$3,378	<b>\$9,788</b>

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



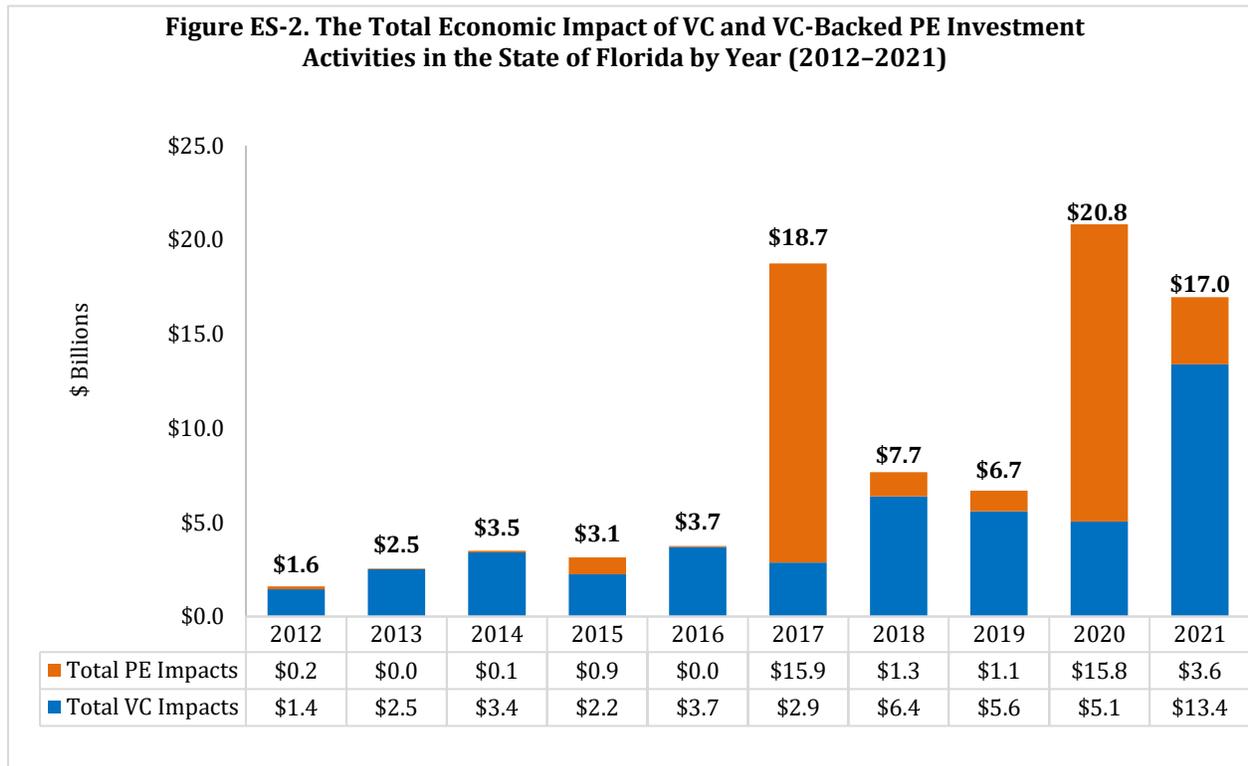
Source: The Washington Economics Group (WEG).

- Table ES-3 and Figure ES-2 on the next page total these impacts by 2-year increments and by individual years, respectively. **The Total Economic Impact has been steadily increasing since 2012, with especially large increases in PE funding since 2017, and large increases in VC funding since 2021.**

**Table ES-3. Summary of the Economic Impacts of VC and VC-Backed PE Investment Activities in the State of Florida by 2-Year Increments (2012–2021)**

Impact on:	2012-2013	2014-2015	2016-2017	2018-2019	2020-2021	Total Impact
Employment (Jobs)	23,016	36,113	120,615	78,939	206,319	<b>465,003</b>
Household Income (\$ Mill.)	\$1,305	\$2,147	\$7,027	\$4,678	\$11,653	<b>\$26,811</b>
GDP (Value Added \$ Mill.)	\$2,162	\$3,420	\$11,415	\$7,398	\$19,374	<b>\$43,768</b>
Total Economic Impact (\$ Mill.)	\$4,150	\$6,632	\$22,486	\$14,362	\$37,768	<b>\$85,398</b>
Federal, State & Local Fiscal Revenues (\$ Mill.)	\$499	\$774	\$2,582	\$1,676	\$4,256	<b>\$9,788</b>

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



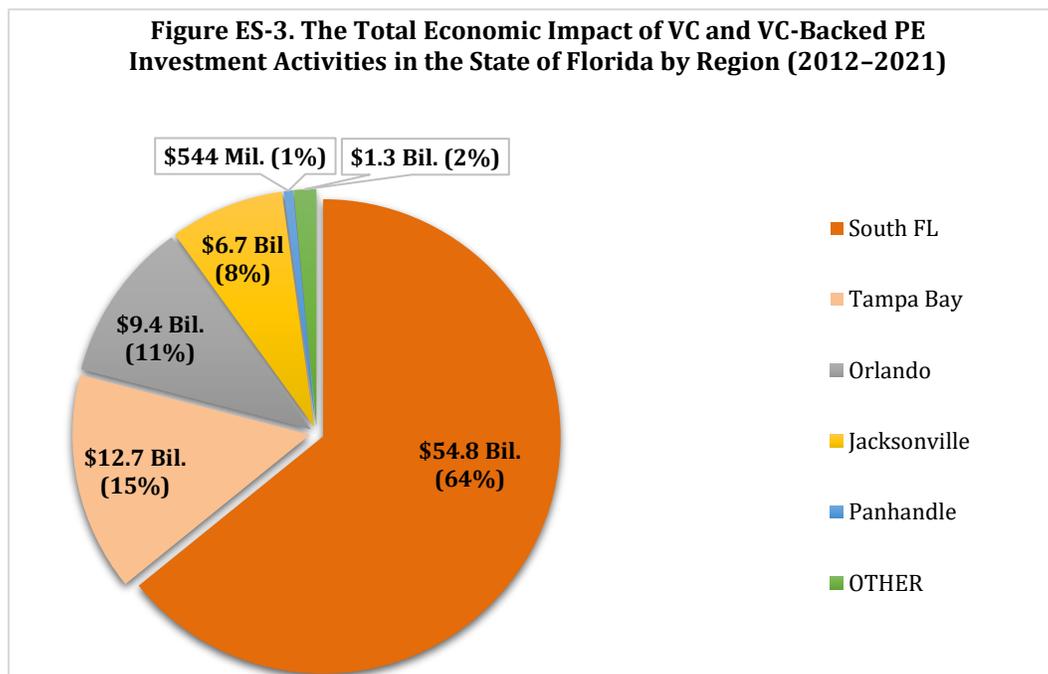
Source: The Washington Economics Group (WEG).

- In terms of regional impacts, **South Florida is the most significant region for VC and PE with \$54.8 billion (or 64 percent) of Total Economic Impacts since 2012. The next most important regions are Tampa Bay with \$12.7 billion (or 15 percent) and Orlando with \$9.4 billion (or 11 percent). The remaining 11 percent of the impacts occur in the Jacksonville area, Panhandle, and other areas of Florida as shown in Table ES-4 below and Figure ES-3 that follows.**

**Table ES-4. Summary of the Economic Impacts of VC and VC-Backed PE Investment Activities in the State of Florida by Region (2012–2021)**

Impact on:	South Florida	Tampa Bay	Orlando	Jacksonville	Panhandle	OTHER	Total Impact
Employment (Jobs)	298,361	69,301	50,959	36,272	2,965	7,146	<b>465,003</b>
Household Income (\$ Mill.)	\$17,203	\$3,996	\$2,938	\$2,091	\$171	\$412	<b>\$26,811</b>
GDP (Value Added \$ Mill.)	\$28,083	\$6,523	\$4,796	\$3,414	\$279	\$673	<b>\$43,768</b>
Total Economic Impact (\$ Mill.)	\$54,794	\$12,727	\$9,359	\$6,661	\$544	\$1,312	<b>\$85,398</b>
Federal, State & Local Fiscal Revenues (\$ Mill.)	\$6,280	\$1,459	\$1,073	\$764	\$62	\$150	<b>\$9,788</b>

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



Source: The Washington Economics Group (WEG).

- Table ES-5 and Figure ES-4 on the next page show the distribution of the Total Economic Impact throughout a variety of Florida’s top industries, generating *directly* over \$42.8 billion. *Indirect* and *induced* impacts generate \$42.6 billion of the impacts (see Table ES-1, page 4). Of the \$85.4 billion in Total Economic Impact since 2012, \$56.8 billion (or 67 percent) occurs within the Knowledge-Based Services<sup>2</sup> industry sector. Other important

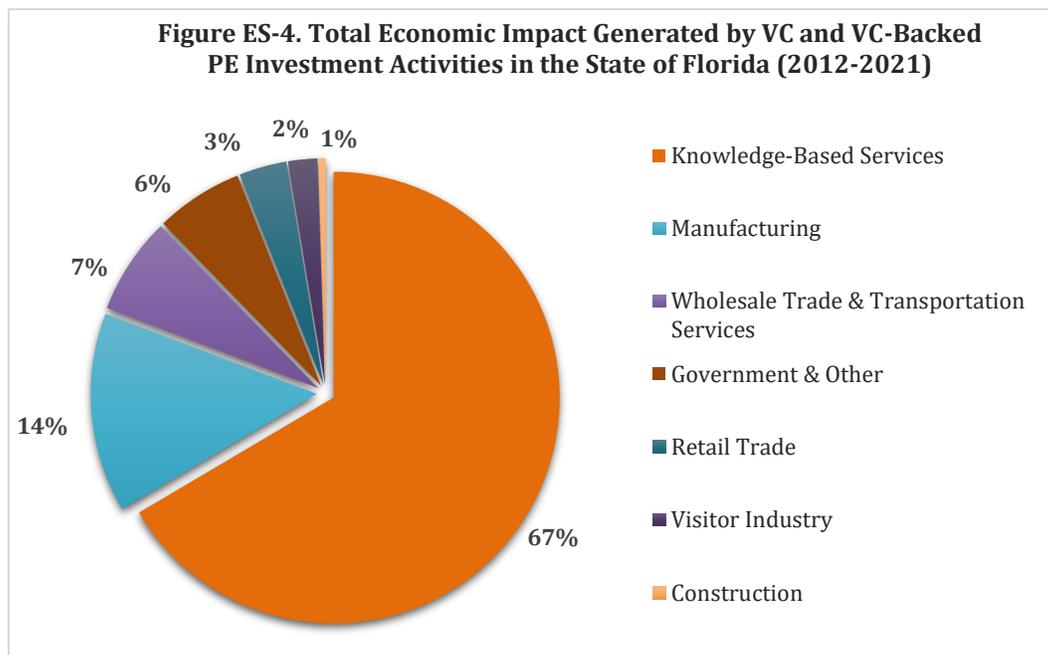
<sup>2</sup>Knowledge-Based Services include categories such as Information Technology, Professional Services, Real Estate and Finance, and jobs within this industry sector pay higher than the statewide average.

impact categories include Manufacturing with \$12.2 billion (or 14 percent) of the impacts, and Wholesale Trade & Transportation Services with \$5.9 billion (or 7 percent). The remaining \$10.5 billion (or 12 percent) is spread amongst various other industry sectors throughout Florida, such as Government & Other, Retail Trade, Visitor Industry, and Construction.

**Table ES-5. Total Economic Impact Generated by VC and VC-Backed PE Investment Activities in the State of Florida (2012-2021) (\$ Thousands)**

Industry	Total Impacts	% of Total
Knowledge-Based Services	\$56,789,938	67%
Manufacturing	\$12,192,186	14%
Wholesale Trade & Transportation Services	\$5,934,566	7%
Government & Other	\$5,340,606	6%
Retail Trade	\$2,904,936	3%
Visitor Industry	\$1,786,551	2%
Construction	\$449,137	1%
<b>Total</b>	<b>\$85,397,921</b>	<b>100%</b>

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



Source: The Washington Economics Group (WEG).

- Significant fiscal contributions arise as a result of the VC and PE funding. In total, more than **\$9.8 billion in tax revenues are generated within the State of Florida. Of this total, over \$6.6 billion flows to the Federal government, and just over \$3.1 billion (or 32 percent) flows to the State as well as Local governments within Florida** as shown in Table ES-6 below.

**Table ES-6. Fiscal Contributions Generated by VC and VC-Backed PE Investment Activities in the State of Florida (2012-2021) (\$ Thousands)**

Impact on:	Federal Taxes	State and Local Taxes	Total
Labor	\$3,100,986	\$6,755	\$3,107,741
Capital	\$58,446	\$0	\$58,446
Indirect Business Taxes	\$226,731	\$3,004,954	\$3,231,685
Households	\$2,915,949	\$27,062	\$2,943,011
Corporations	\$346,030	\$101,209	\$447,240
<b>Total Tax Revenues</b>	<b>\$6,648,142</b>	<b>\$3,139,981</b>	<b>\$9,788,122</b>

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

- The impacts of the Venture Capital and private equity industries in Florida are significant and growing, especially within the last 5 years. Most of these impacts occur in South Florida, however, there is significant investment activity in the fast-growing Tampa Bay and Orlando regions as well. This activity leaves Florida well-positioned to diversify its economy away from the more traditional tourism and agriculture industries, helping to make the State more competitive and a true leader in technological innovation within the 21<sup>st</sup> Century.



## II. The Economic Development Benefits of Venture Capital on Florida's Economy: The Critical Role of Florida Venture Forum

To best understand the economic benefits of an entire industry such as Venture Capital, it is important to analyze both quantitative and qualitative economic impacts. In this **qualitative assessment** Section, Florida's Venture Capital (VC) industry will be presented in terms of its economic development importance on the entire State. Florida's VC industry **quantitative economic impacts** are found in the following Section to complete this comprehensive analysis.

The **qualitative economic benefits** (also called "externality benefits") of Florida's VC industry are significant and numerous. These benefits accrue beyond what can be quantitatively measured. This Section focuses on Florida's VC industry as an important economic catalyst, significantly multiplying economic returns and impact. Florida's Venture Capital industry is essential for the economic development of the State as capital investment supports growth into technology companies that enhance industry diversification and high-wage job growth. Florida's VC industry has seen significant growth over the past decade, and this has and continues to support, create and sustain high-wage and high-skill jobs for Floridians. Lastly, this Section will present the roles VC and PE play in promoting the development of new businesses in Florida's targeted industries, thereby aligning with the economic development strategy of the State.

### Venture Capital and VC-Backed Private Equity (VC/PE) and their role with Technology Firms

The following excerpt is presented from the Florida Venture Forum's 2020 Florida Capital Yearbook<sup>3</sup>:

#### *Venture Capital 101*

Venture Capital facilitates and enables the growth and innovation required to support entrepreneurial ecosystems of the modern world by turning ideas into products and services. Venture Capital firms help entrepreneurs move from ideas to long term sustainable businesses that change society through innovations.

<sup>3</sup><https://docslib.org/doc/5925437/2020-florida-venture-capital-yearbook-provides-venture-capital-data-for-funds-and-venture-backed-companies-headquartered-in-florida>

### *Risk Capital for High-Growth Businesses*

Venture Capital (VC) firms are investment management firms that inject risk capital into innovative high growth companies. They look at investments that are unable to receive traditional financing with disruptive technologies that require a longer-term investment horizon. Venture Capital helps fuel the growth of innovative firms into the businesses of the future. These VC firms make equity investments in illiquid companies with the goal of capturing several years of “hypergrowth” that happens in a company before a liquidation event (IPO or buyout). Participating in the growth of these firms allows VC firms to make extraordinary returns for their investors. These companies tend to have several “follow on” rounds of funding, which allow them to continue to grow, raising more growth capital as needed, and at increasing levels of agreed valuation. Once a company is acquired or goes public, equity holders (including founders and management), receive (hopefully) a significant return on their equity investment. Successful VC firms with proprietary deal flow and effective due diligence are able to invest in companies that will continue to grow and prosper.

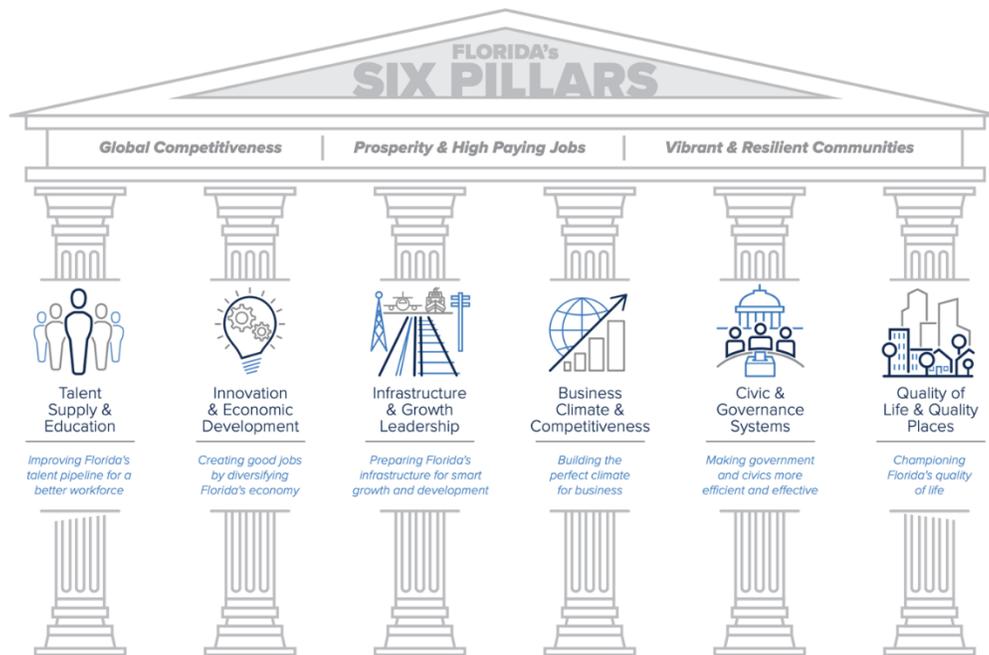
### *Partners, Not Just Investors*

VC investing differs from other types of investing in that VC’s provide numerous non-financial services and benefits, along with the capital. VC firms typically join the boards of companies in which they invest, providing guidance and access to their networks to help firms execute strategies to accelerate a company’s growth to create a higher probability of success. VC professionals are typically experts or have access to experts in the business ventures in which they invest. VC firms can help companies fill talent gaps and gain access to strategic partners. VC firms provide smart capital to enhance the firms’ ability thrive in a rapidly changing and competitive business environment.

## **Alignment with Florida’s Economic Development Priorities**

Florida is widely considered an “economic miracle” as it has expanded, developed and grown significantly over the past 50 years. Today, Florida boasts a \$1.2 trillion economy making it the 15<sup>th</sup> largest economy in the world (tied with the entire country of Mexico). According to the Florida Chamber Foundation, Florida’s aims are to be the 10<sup>th</sup> largest economy in the world by 2030, welcoming 4 million new residents (on top of the 22 million who currently reside in the State). As Florida continues to grow and diversify its economy away from tourism/hospitality and agriculture (two industries from the last century), it is important to

understand where elected officials and stakeholders are positioning Florida’s economic priorities. According to Florida’s Department of Economic Opportunity (DEO), Florida’s vision is to “*have the nation’s top-performing economy and be recognized as the world’s best place to live, learn, play, work and do business.*” This is supported by the 6-pillar framework illustrated by the Florida Chamber Foundation’s matrix below.



**Florida’s Venture Capital industry throughout the Forum multiplies its economic impact because its multifaceted activities are directly aligned with the economic development strategies and goals of the State.**

Florida’s VC industry is one of the reasons why the State has diversified and grown significantly over the years. The VC industry supports Florida’s global competitiveness, prosperity and higher paying jobs, and contributes to building vibrant and resilient communities. The presentation below supports this alignment.

- **Talent Supply & Education:** Florida seeks to educate, attract and retain top talent. Florida’s VC industry supports knowledge-intensive jobs attracting and retaining top talent. But for Florida’s VC firms and their capital injection, this talent would likely move elsewhere.

- **Innovation & Economic Development:** A key component in supporting economic development is business branding. Florida's business brand changed significantly over the Covid-19 pandemic and is now seen as a mature diversified economy well-positioned for the growth of technology firms. Florida's VC industry supported this effort and is one of the main reasons why the State was able to attract and retain so many technology firms over the past few years.
- **Business Climate & Competitiveness:** Florida has stated that it is important to encourage industry diversification to ensure a sustainable business climate. Florida's VC industry is instrumental in making Florida's economy more competitive and well-positioned to adjust to the constant changes it will face in the 21<sup>st</sup> Century.
- **Civic & Governance Systems:** Florida's goal is to strengthen local, regional and statewide partnerships and integrate long-term investment strategies. Florida's VC industry, through its leading organizations like the Florida Venture Forum, partners with multiple organizations to enhance its impact.
- **Quality of Life & Quality of Places:** Florida's objective is to increase and sustain its attractiveness to workers, residents and visitors. By attracting and retaining higher wage jobs, Florida's VC industry improves the quality of life for each community and its residents.

According to a recent study by the University of North Carolina, employment at U.S. VC-backed companies grew 960 percent from 1990 to 2020, 8x compared to non-VC-backed companies<sup>4</sup>. This same study had VC-backed companies' employment in Florida at over 152,000 direct jobs<sup>5</sup>. This number is likely much higher due to the significant growth of VC-backed companies who moved to and have been growing in Florida over the past two years. VC-backed companies pay higher than average wages and are, therefore, essential to the economic development of Florida's communities.

The Florida Venture Forum is essential to technology firms. Technology and IT is a targeted industry according to Enterprise Florida, the State's economic development organization. Today, technology companies in Florida directly employ over 311,000 individuals with clusters emerging across the State. From simulations, to photonics, to traditional industries

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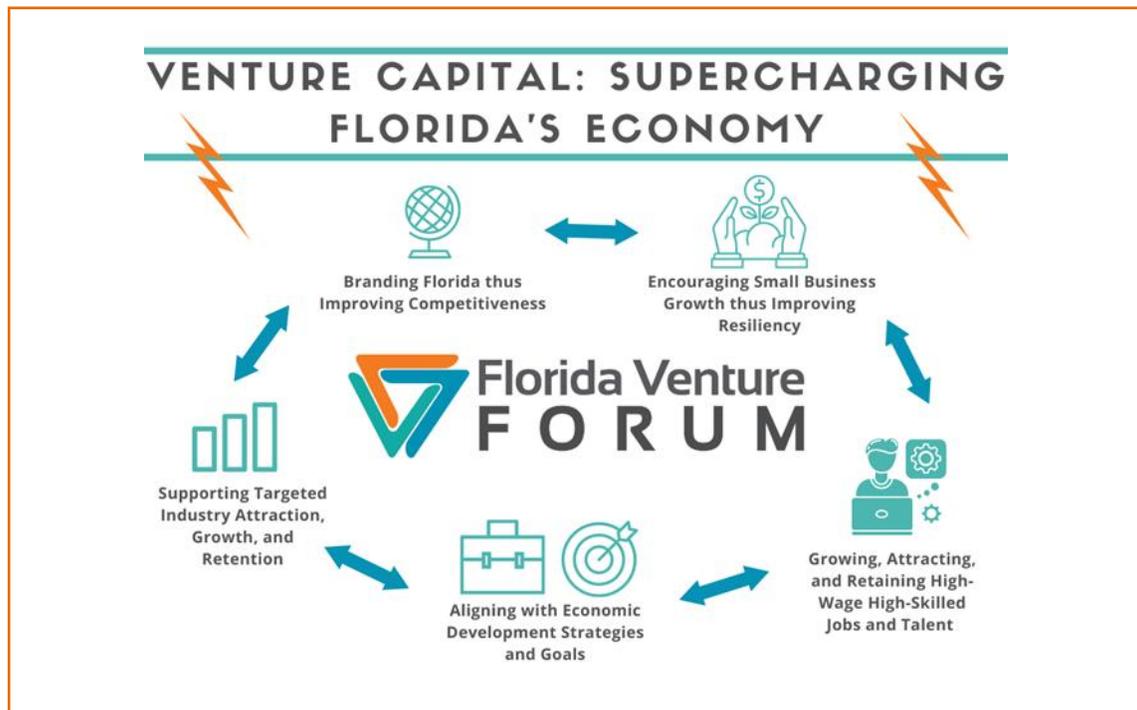
<sup>4</sup><https://www.prnewswire.com/news-releases/employment-at-us-vc-backed-companies-grew-960-from-1990-to-2020-8x-compared-to-non-vc-backed-companies-301482892.html>.

<sup>5</sup><https://nvca.org/employment-dynamics/>

(Life Sciences, Aviation/Aerospace), in essence, Florida’s VC industry is essential to support companies with high potential in the State.<sup>6</sup>

### Florida VC Fund Spotlight: The Florida Opportunity Fund

*“The Enterprise Florida-sponsored Florida Opportunity Fund provides venture capital for early-stage and growth businesses. State venture capital programs often take one of two forms: a state-run venture capital fund (which may include other private investors) that invests directly in businesses; or a fund of funds, which is a fund that invests in other venture capital funds that in turn invest in individual businesses. Many factors, particularly resources and available talent, inform a state’s decision on which form to choose.”<sup>7</sup>*



To best understand the overall impact of Florida’s Venture Capital industry, the Venture Capital Florida economic matrix is presented above. This virtuous cycle is important to understand as it shows why Florida’s VC industry true economic impact is greater than what can be quantitatively assessed in the following Section. By building Florida’s business brand,

<sup>6</sup><https://www.enterpriseflorida.com/industries/information-technology/>

<sup>7</sup><https://www.bizjournals.com/bizjournals/partner-insights/florida-the-future-is-here/enterprise-floridas-capital-programs-support-small.html>

by growing small businesses into larger enterprises, by supporting targeted industry, growth and by increasing, attracting and retaining high wages, Florida's VC industry is essential for the State's continued economic development.

In conclusion, Florida's Venture Capital industry has been a catalyst for economic growth and diversification in the State. While the industry has significant quantitative economic impacts that will be presented in the following Section, the real number is higher because of all the attributes previously presented. Florida's VC industry's alignment with the stated economic development goals and aims of the State produces a synergistic effect where the impact goes beyond what can be measured.



### III. The Economic Impacts of Venture Capital (VC) and VC-Backed Private Equity (PE) Investment Activities in the State of Florida: Background and Methodology for Impact Analysis

The comprehensive economic impacts of all Venture Capital (VC) investment in Florida from 2012 to 2021, including VC-Backed Private Equity (PE) investment activity, include both **qualitative** and **quantitative** categories. **Qualitative** benefits, (also called “externality benefits”) are those positive economic benefits VC and VC-backed PE investments provide that accrue beyond what can be quantitatively measured. Examples of these benefits include the branding of Florida as a high-tech innovation hub, the attraction of high-wage jobs and talent that result, and supporting the growth of industries targeted by economic development organizations throughout the State. For more discussion on the **qualitative** benefits of this investment activity, see the previous Section. The **quantifiable** economic impacts of VC investment throughout Florida are discussed below, and consist of the following four broad categories of economic impacts:

- **Early Stage VC** includes Grants, Accelerator/Incubator investments, Angel, Seed, and all other Early Stage investments as defined by Pitchbook.
- **Later Stage VC** includes all remaining VC not in the “Early-Stage” categories as defined by Pitchbook.
- **Early Stage PE** includes Growth and Expansion Capital as defined by Pitchbook.
- **Later Stage PE** includes all PE not in the “Early-Stage” categories as defined by Pitchbook, including all Buyouts/Leveraged Buyouts (LBOs), Secondary Buyouts, Management Buy-In, Add-On Capital, Public to Private investment and PIPE (Private Investment in Public Equity).

For the purposes of this Study, WEG analyzed the impact of all VC activity through Florida over the last 10 full years (2012–2021) based on data and investment category definitions provided by Pitchbook. WEG also included “VC-backed” private equity (PE), defined as private equity provided to any company that also received VC funding during this 10-year period.

**The quantifiable economic impact of VC and VC-Backed PE investment extends beyond what is *directly* related to these four categories of spending.** These “spillover” or multiplier impacts are primarily the result of the impact of local industries buying goods and

services from other local industries (known as an *indirect* effect), as well as increased labor income and the propensity of households to spend income on goods produced within the State and local areas (known as an *induced* effect). The following sections estimate the positive economic impacts of *direct*, *indirect*, and *induced* effects in terms of:

- A. *Employment (Jobs)*
- B. *Household Income*
- C. *Gross Domestic Product (Value Added)*
- D. *Total Economic Impact (Gross Economic Output)*
- E. *Public Revenues (taxes) for State and Local Governments*

Based on the research previously presented, WEG quantified and estimated the comprehensive economic impacts utilizing the professionally accepted and widely used IMPLAN Input/Output Methodology. The IMPLAN Group, LLC. (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 1985.<sup>8</sup> IMPLAN models are widely used by both public and private-sectors decision makers throughout Florida.

**The *direct*, *indirect* and *induced* economic effects provided by the IMPLAN model were combined in the tables and figures that follow.** These impacts are presented in 2022 dollars. The following text provides a technical description of the *direct*, *indirect* and *induced* multiplier effects. For more information on the IMPLAN model, see Methodology below.

#### ***Input/Output Methodology: Technical Description***

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 leads to expansions in employment and labor income, and the increases in labor income leads to increases in consumer spending, further expanding sales and production throughout the regional economy. The latter economic impacts are referred to as the

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<sup>8</sup>Information on the IMPLAN Group, LLC models and the company history can be found at [www.implan.com](http://www.implan.com).

*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 quantitative economic contribution of these activities, therefore, is comprised of a *direct effect*, an *indirect effect* and an *induced effect*.

### A. Summary of Economic Impacts

The Total Economic Impact of VC and VC-Backed PE on Florida is \$85.4 billion from 2012 to 2021. Of this total, \$42.8 billion (or 50 percent) is due to *direct* economic effects, with \$42.6 billion (just under 50 percent) attributable to *indirect* and *induced* economic effects.

In addition, this economic activity has supported **465,000 jobs**, generated **\$26.8 billion in Household Income**, **\$43.8 billion in GDP** and **\$9.8 billion in Federal, State & Local Fiscal Revenues since 2012**. This is detailed in Table 1 below, which totals these impacts in terms of *direct*, *indirect* and *induced* effects. Although not included as part of the below table, there has been an additional **\$10.9 billion in VC-backed Mergers and Acquisitions (M&A) since 2012**. There has also been a total of **\$5.3 billion in debt financing** and **\$2.3 billion in Initial Public Offerings (IPOs)** for VC-backed companies throughout this same time period.

**Table 1. Summary of the Economic Impacts of VC and VC-Backed PE Investment Activities in the State of Florida by Impact Type (2012–2021)**

Impact on:	Direct	Indirect & Induced	Total Impact
Employment (Jobs)	218,211	246,792	<b>465,003</b>
Household Income (\$ Millions)	\$13,660	\$13,152	<b>\$26,811</b>
GDP (Value Added \$ Millions)	\$20,710	\$23,058	<b>\$43,768</b>
Total Economic Impact (\$ Millions)	\$42,826	\$42,572	<b>\$85,398</b>
Federal, State & Local Fiscal Revenues (\$ Millions)	\$4,536	\$5,252	<b>\$9,788</b>

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

In total, when including private equity that is *not* VC-backed, **there has been \$210 billion in PE funding for all Florida companies since 2012**. Although much of this \$210 billion does not have a tangible connection to the VC space and was thus excluded from the IMPLAN-derived impacts, this funding is very important to the broader financial ecosystem

throughout the State. According to the American Investment Council and Ernst & Young, The US private equity sector comprises approximately 6.5 percent of GDP.<sup>9</sup>

As detailed in the previous Section, the quantifiable economic impacts are primarily driven by four categories of spending:

- **Early Stage VC,**
- **Later Stage VC,**
- **Early Stage PE, and**
- **Later Stage PE.**

Each of these categories can be referred to as distinct stage in the investment process. Table 2 and Figure 1 on the next page total these impacts by investment stage, including both VC and VC-Backed PE.

**Just under 55 percent of the \$85.4 billion in Total Economic Impact are from Venture Capital, with the remaining 45 percent of Total Economic Impact due to VC-Backed PE investment.**

In addition, 52 percent of Venture Capital funding throughout Florida from 2012 to 2021 can be considered “later stage”, while a larger 76 percent of private equity funding throughout this same period is later stage PE.

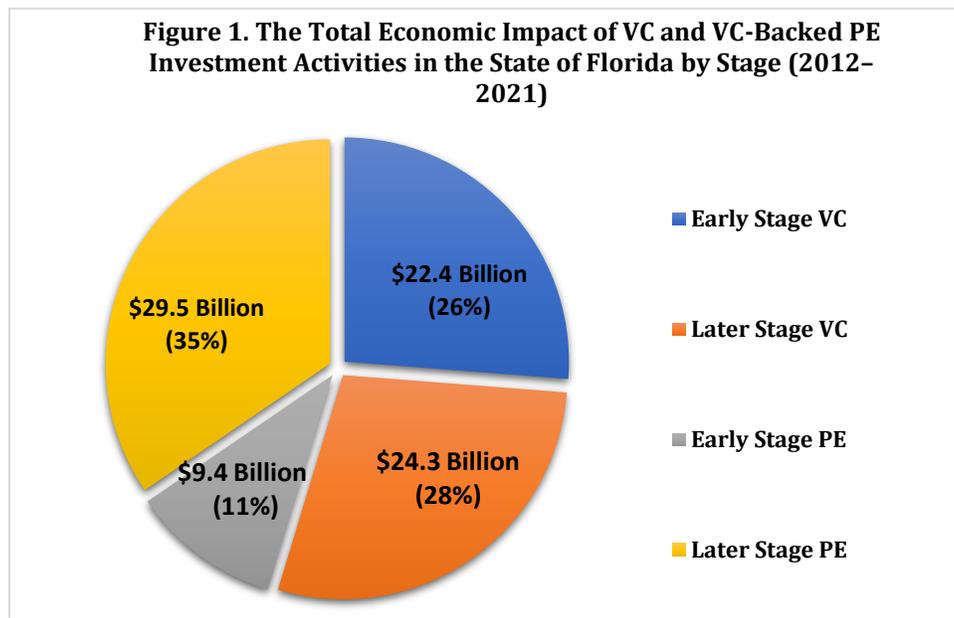
**Table 2. Summary of the Economic Impacts of VC and VC-Backed PE Investment Activities in the State of Florida by Stage (2012–2021)**

Impact on:	Early Stage VC	Later Stage VC	Early Stage PE	Later Stage PE	Total Impact
Employment (Jobs)	121,844	132,378	50,310	160,472	<b>465,003</b>
Household Income (\$ Mill.)	\$7,025	\$7,633	\$2,901	\$9,253	<b>\$26,811</b>
GDP (Value Added \$ Mill.)	\$11,468	\$12,460	\$4,735	\$15,104	<b>\$43,768</b>
Total Economic Impact (\$ Mill.)	\$22,377	\$24,311	\$9,239	\$29,471	<b>\$85,398</b>
Federal, State & Local Fiscal Revenues (\$ Mill.)	\$2,565	\$2,787	\$1,059	\$3,378	<b>\$9,788</b>

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

<sup>9</sup><https://taxnews.ey.com/news/2021-1061-american-investment-council-releases-ey-report-on-the-economic-footprint-of-the-us-private-equity-sector>

**Figure 1. The Total Economic Impact of VC and VC-Backed PE Investment Activities in the State of Florida by Stage (2012–2021)**



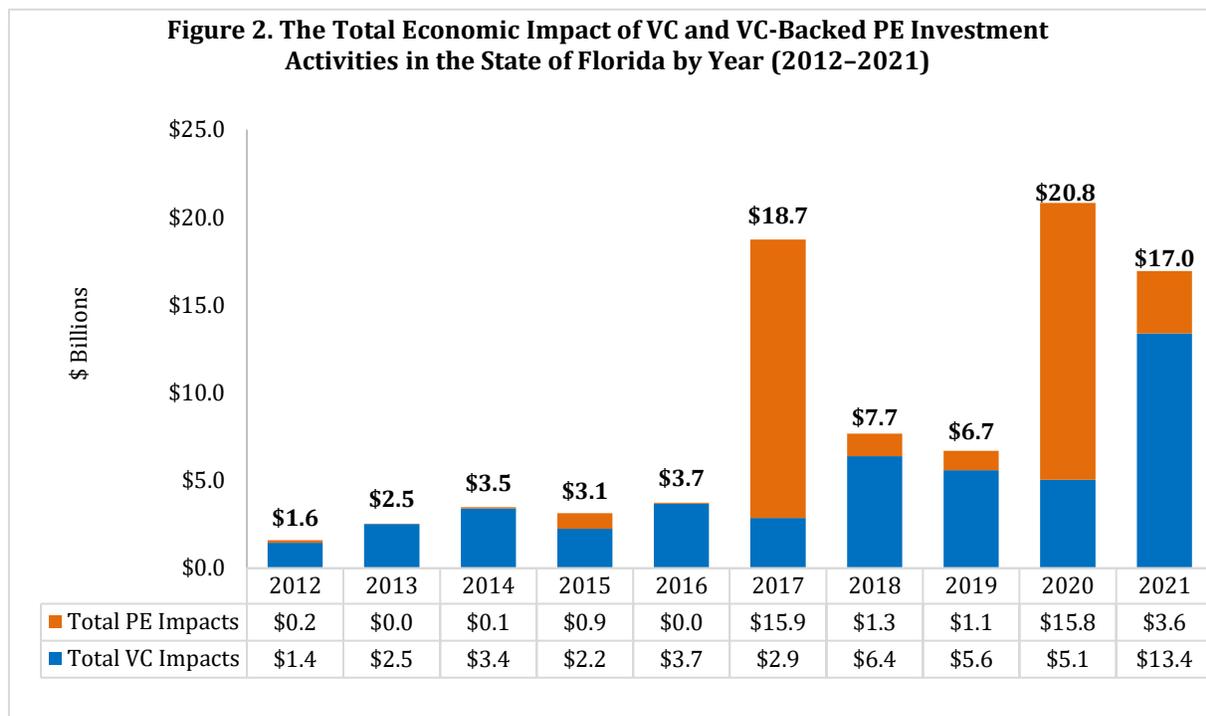
Source: The Washington Economics Group (WEG).

Table 3 below and Figure 2 on the next page total these impacts by 2-year increments and by individual years, respectively. **The Total Economic Impact has been steadily increasing since 2012, with especially large increases in PE funding since 2017 and large increases in VC funding since 2021.** In 2017 and in 2020 there were significant private equity buyouts of over \$15 billion total each year. In 2021, there was an increase in venture capital funding of over \$8 billion compared to 2020. This could be attributed in large part to the ongoing shift towards digital services during the COVID-19 pandemic.

**Table 3. Summary of the Economic Impacts of VC and VC-Backed PE Investment Activities in the State of Florida by 2-Year Increments (2012–2021)**

Impact on:	2012-2013	2014-2015	2016-2017	2018-2019	2020-2021	Total Impact
Employment (Jobs)	23,016	36,113	120,615	78,939	206,319	<b>465,003</b>
Household Income (\$ Mill.)	\$1,305	\$2,147	\$7,027	\$4,678	\$11,653	<b>\$26,811</b>
GDP (Value Added \$ Mill.)	\$2,162	\$3,420	\$11,415	\$7,398	\$19,374	<b>\$43,768</b>
Total Economic Impact (\$ Mill.)	\$4,150	\$6,632	\$22,486	\$14,362	\$37,768	<b>\$85,398</b>
Federal, State & Local Fiscal Revenues (\$ Mill.)	\$499	\$774	\$2,582	\$1,676	\$4,256	<b>\$9,788</b>

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



Source: The Washington Economics Group (WEG).

The impacts of VC and PE are concentrated in different areas throughout Florida. In terms of regional impacts, **South Florida is the most important region for VC and VC-Backed PE, with \$54.8 billion (or 64 percent) of Total Economic Impacts since 2012. The next most important regions are Tampa Bay with \$12.7 billion (or 15 percent) and Orlando with \$9.4 billion (or 11 percent). The remaining 11 percent of the impacts occur in the Jacksonville area, Panhandle and other areas of Florida as shown in Table 4 and Figure 3 below.**

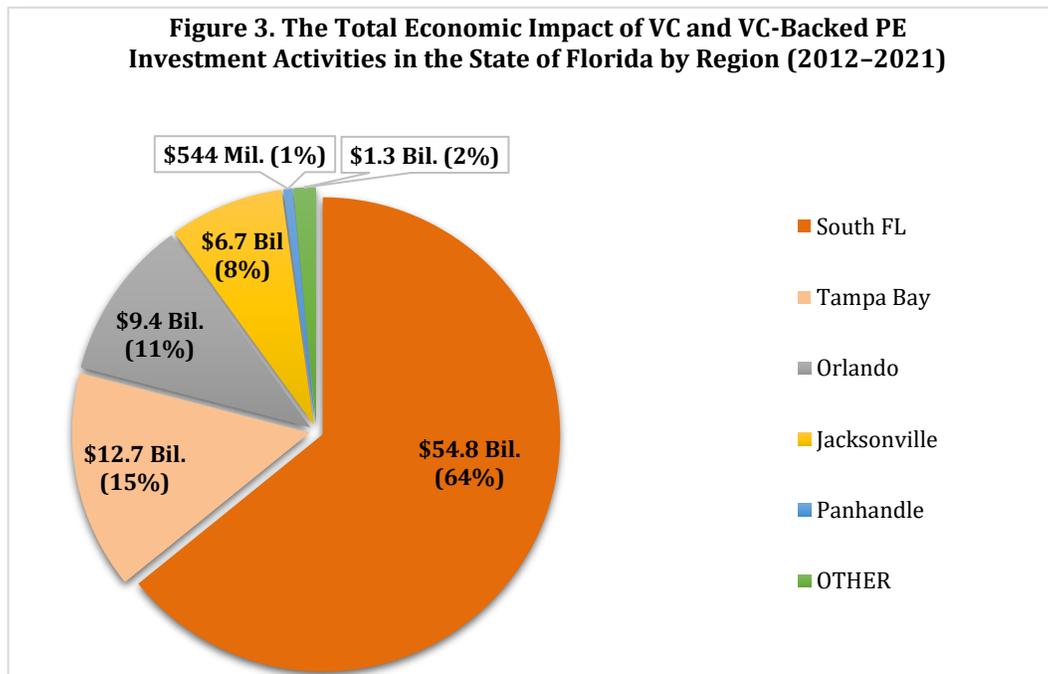
**Table 4. Summary of the Economic Impacts of VC and VC-Backed PE Investment Activities in the State of Florida by Region (2012–2021)**

Impact on:	South Florida	Tampa Bay	Orlando	Jacksonville	Panhandle	OTHER	Total Impact
Employment (Jobs)	298,361	69,301	50,959	36,272	2,965	7,146	<b>465,003</b>
Household Income (\$ Mill.)	\$17,203	\$3,996	\$2,938	\$2,091	\$171	\$412	<b>\$26,811</b>
GDP (Value Added \$ Mill.)	\$28,083	\$6,523	\$4,796	\$3,414	\$279	\$673	<b>\$43,768</b>
Total Economic Impact (\$ Mill.)	\$54,794	\$12,727	\$9,359	\$6,661	\$544	\$1,312	<b>\$85,398</b>
Federal, State & Local Fiscal Revenues (\$ Mill.)	\$6,280	\$1,459	\$1,073	\$764	\$62	\$150	<b>\$9,788</b>

Note: Total may not equal the sum of all due to rounding.

Source: The Washington Economics Group (WEG)

**Figure 3. The Total Economic Impact of VC and VC-Backed PE Investment Activities in the State of Florida by Region (2012–2021)**



Source: The Washington Economics Group (WEG).

The regional impacts also include investments in areas adjacent to the main Metropolitan Statistical Areas (MSAs) in which they are defined. For example, the Orlando region includes the Port St. Lucie MSA, and the Tampa Bay region includes the North Point-Sarasota-Bradenton MSA.

***B. Jobs Supported by Venture Capital (VC) and VC-Backed Private Equity (PE) Investment Activities in Florida Are Significant***

**In total, 465,003 jobs have been supported in Florida from 2012 to 2021 by VC and VC-Backed PE investment activities.** Of these, 218,211 (or 47 percent) are supported through *direct* economic effects, while 246,792 (or 53 percent) are supported through *indirect* and *induced* effects. (See Table 1, page 16.)

The jobs supported by this investment activity are within many different industry sectors. The most important industry sector is Knowledge-Based Services<sup>10</sup>, with 315,288 jobs supported (or 68 percent). The next most important sectors are Government & Other with 8 percent of the impacts (35,237 jobs), Wholesale Trade & Transportation Services with 7 percent (30,230 jobs), and Retail Trade with 6 percent (29,935 jobs). The remaining 12

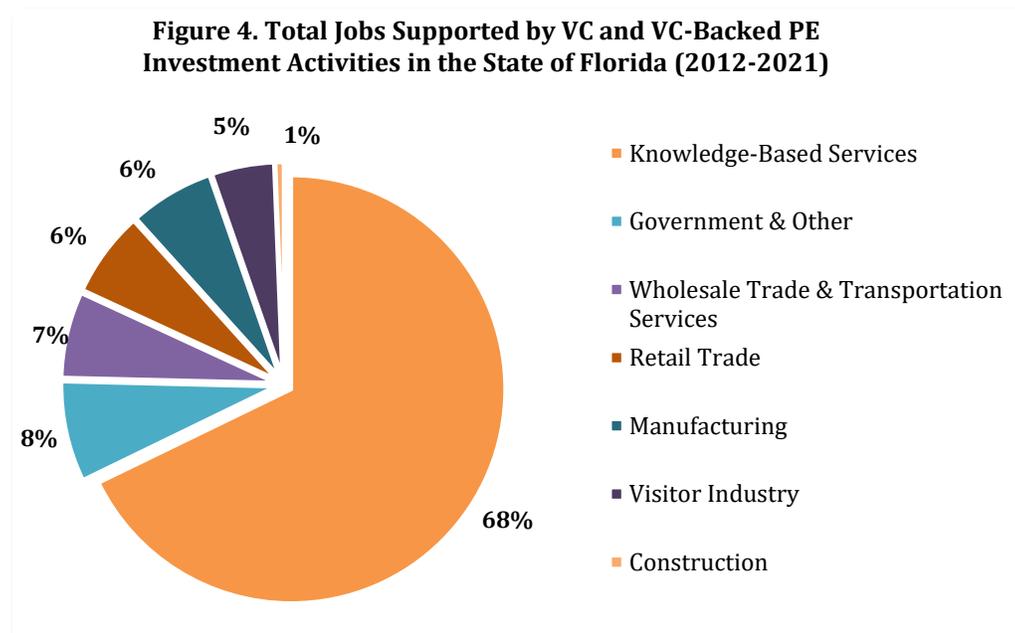
<sup>10</sup>Major industries under this category are Information, Finance and Insurance, Real Estate, Professional, Administrative Services & Arts, Entertainment & Recreation and Healthcare Services, Education. Jobs within this industry sector pay higher than the statewide average.

percent of employment is distributed among various other sectors of the economy such as Manufacturing, Visitor Industry and Construction, as shown in Table 5 and Figure 4 below.

**Table 5. Total Jobs Supported by VC and VC-Backed PE Investment Activities in the State of Florida (2012-2021)**

Industry	Jobs Supported	% of Total
Knowledge-Based Services	315,288	68%
Government & Other	35,237	8%
Wholesale Trade & Transportation Services	30,230	7%
Retail Trade	29,935	6%
Manufacturing	29,574	6%
Visitor Industry	21,846	5%
Construction	2,893	1%
<b>Total</b>	<b>465,003</b>	<b>100%</b>

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



Source: The Washington Economics Group (WEG).

**C. Venture Capital (VC) and VC-Backed Private Equity (PE) Investment Activity Create \$27 Billion in Household Income in Florida**

The *direct*, *indirect*, and *induced* impacts of VC and VC-Backed PE generate income for employees throughout the State and their proprietors. **In total, just under \$27 billion in Household Income in Florida has been generated as a result of VC and VC-backed PE investments.** Of this total, \$13.7 billion (or 51 percent) is *directly* generated, while \$13.2 billion (or 49 percent) is generated through *indirect* and *induced* effects. (See Table 1, page 16.)

As with the jobs supported, the largest share of Household Income is within the high-wage Knowledge-Based Services<sup>11</sup> sector, comprising \$19.1 billion (or 71 percent) of the impacts. Manufacturing is the next most important sector with almost \$2.3 billion (or 8 percent) in total Household Income for Florida residents, and Government & Other generates close to \$1.9 billion (or 7 percent) in Household Income. The remaining around 13 percent is spread throughout the Wholesale Trade & Transportation Services, Retail Trade, Visitor Industry and the Construction sectors as shown in Table 6 below and in Figure 5 on the next page.

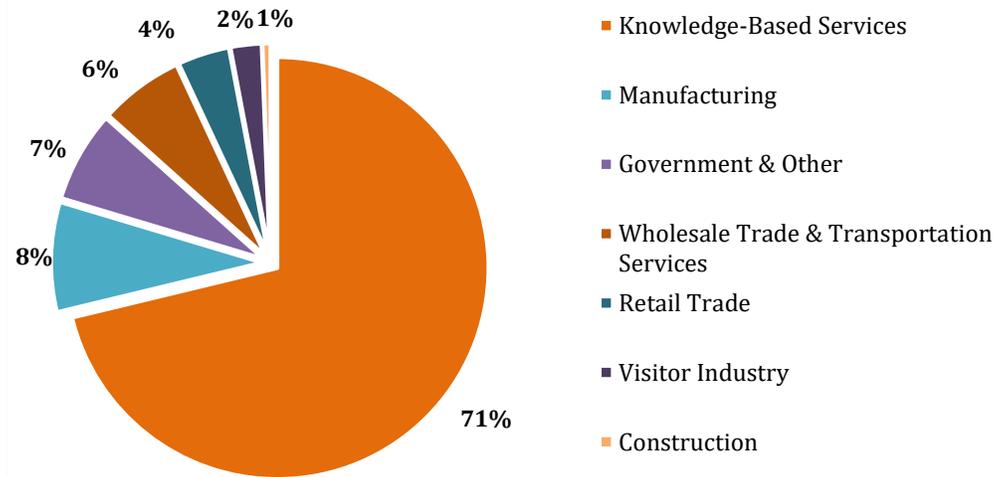
**Table 6. Household Income Created by VC and VC-Backed PE Investment Activities in the State of Florida (2012-2021) (\$ Thousands)**

Industry	Total Impacts	% of Total
Knowledge-Based Services	\$19,096,814	71%
Manufacturing	\$2,255,870	8%
Government & Other	\$1,871,308	7%
Wholesale Trade & Transportation Services	\$1,724,753	6%
Retail Trade	\$1,062,795	4%
Visitor Industry	\$635,293	2%
Construction	\$164,548	1%
<b>Total</b>	<b>\$26,811,381</b>	<b>100%</b>

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

<sup>11</sup>Ibid.

**Figure 5. Household Income Created by VC and VC-Backed PE Investment Activities in the State of Florida (2012-2021)**



Source: The Washington Economics Group (WEG).

***D. Gross Domestic Product (Value-Added) Impacts Generated by Venture Capital (VC) and VC-Backed Private Equity (PE) Investment Activities in Florida Are Over \$43 Billion***

Gross Domestic Product (Value Added) is the portion of business revenue that is available to pay compensation to workers, capital income and indirect business taxes, capital income and indirect business taxes<sup>12</sup>. **GDP is also the principal source of income to households and a key measure of the contribution to the economy made by VC and VC-Backed PE, resulting in a contribution to the Florida economy of \$43.8 billion** over the last 10 full years (2012–2021). Of this total, \$20.7 billion (or 47 percent) is due to *direct* impacts, while \$23.1 billion (or 53 percent) is due to *indirect* and *induced* impacts. (See Table 1, page 16.)

The most important industry sector affected is Knowledge-Based Services<sup>13</sup>, with \$30.7 billion (or 70 percent) of the impacts. The next most important industry sectors are Manufacturing with \$3.9 billion (or 9 percent) and Wholesale Trade & Transportation Services with \$3.1 billion (or 7 percent) of the impacts, respectively. Government & Other industries also contribute an important \$3 billion (7 percent) or GDP. The remaining 7

<sup>12</sup>Value added also includes compensation to government workers.

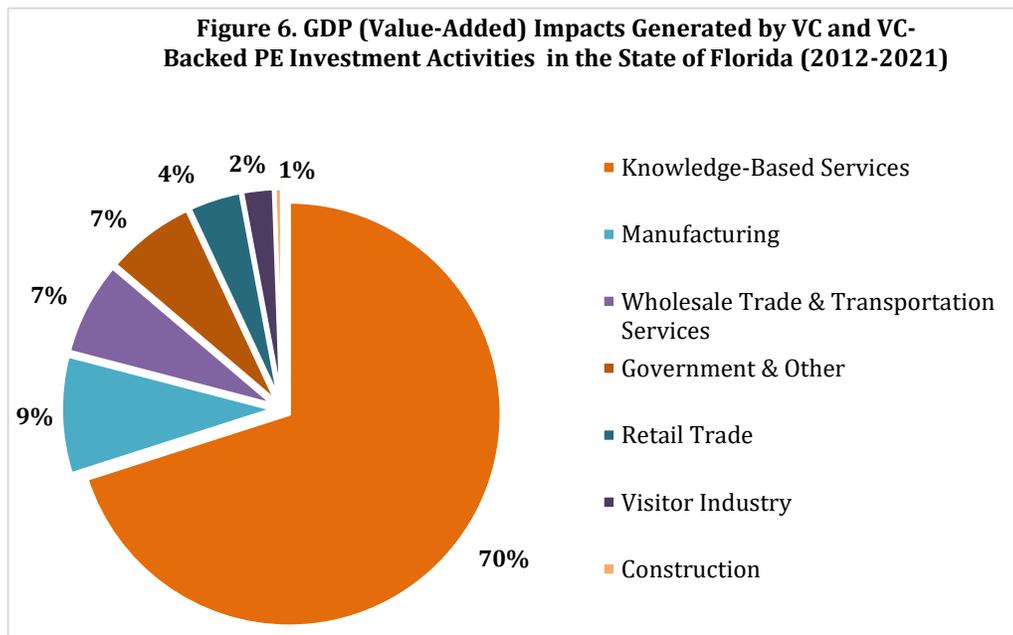
<sup>13</sup>Ibid.

percent is spread among various other industry sectors such as Retail Trade, Visitor Industry and Construction as shown in Table 7 and in Figure 6 below.

**Table 7. GDP (Value-Added) Impacts Generated by VC and VC-Backed PE Investment Activities in the State of Florida (2012-2021) (\$ Thousands)**

Industry	Total Impacts	% of Total
Knowledge-Based Services	\$30,662,689	70%
Manufacturing	\$3,941,430	9%
Wholesale Trade & Transportation Services	\$3,132,385	7%
Government & Other	\$2,988,251	7%
Retail Trade	\$1,755,009	4%
Visitor Industry	\$1,043,226	2%
Construction	\$244,753	1%
<b>Total</b>	<b>\$43,767,742</b>	<b>100%</b>

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



Source: The Washington Economics Group (WEG).

**E. The Total Economic Impact of Venture Capital (VC) and VC-Backed Private Equity (PE) Investment Activities in Florida is a Significant \$85.4 Billion**

A comprehensive measure of the impacts of VC and VC-Backed PE investments is *Gross Economic Output*, representing the sum of gross revenues (receipts) of private firms plus the value of government services (valued at cost). **Table 8 below and Figure 7 on the next page show the distribution of the Total Economic Impact throughout a variety of Florida’s top industries, generating directly over \$42.8 billion. Indirect and induced impacts generate \$42.6 billion of the impacts.** (See Table 1, page 16.)

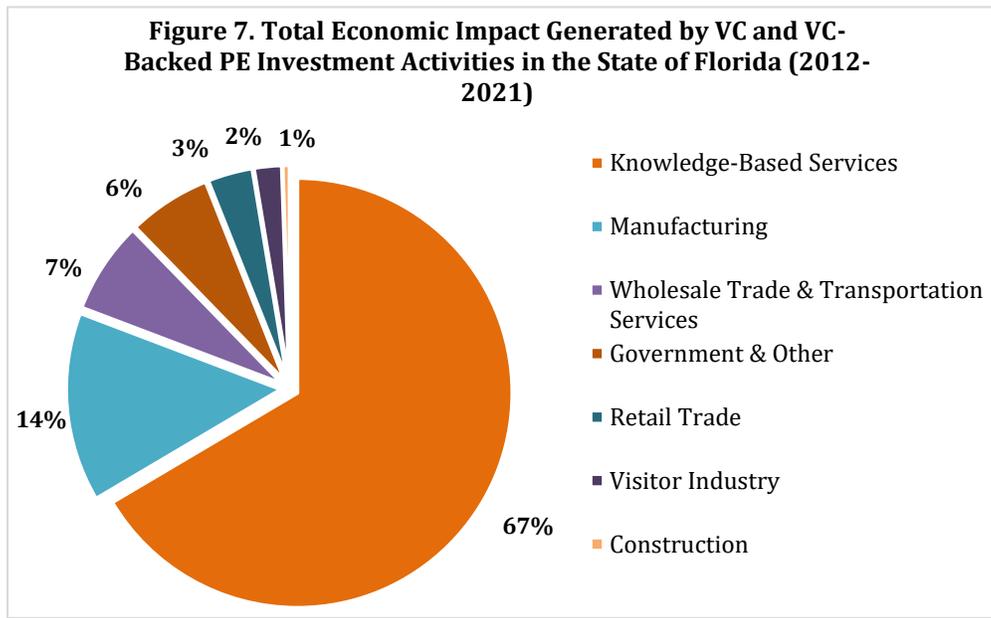
Of the \$85.4 billion in Total Economic Impact since 2012, \$56.8 billion (or 67 percent) occurs within the Knowledge-Based Services<sup>14</sup> industry sector. Other important impact categories include Manufacturing with \$12.2 billion (or 14 percent) of the impacts, and Wholesale Trade & Transportation Services with \$5.9 billion (or 7 percent). The remaining \$10.5 billion (or 12 percent) is spread amongst various other industry sectors throughout Florida, such as Government & Other, Retail Trade, Visitor Industry and Construction sectors as presented in Table 8 below and in Figure 7 on the following page.

**Table 8. Total Economic Impact Generated by VC and VC-Backed PE Investment Activities in the State of Florida (2012-2021) (\$ Thousands)**

Industry	Total Impacts	% of Total
Knowledge-Based Services	\$56,789,938	67%
Manufacturing	\$12,192,186	14%
Wholesale Trade & Transportation Services	\$5,934,566	7%
Government & Other	\$5,340,606	6%
Retail Trade	\$2,904,936	3%
Visitor Industry	\$1,786,551	2%
Construction	\$449,137	1%
<b>Total</b>	<b>\$85,397,921</b>	<b>100%</b>

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

<sup>14</sup>Major industries under this category are Information, Finance and Insurance, Real Estate, Professional, Administrative Services & Arts, Entertainment & Recreation and Healthcare Services, Education. Jobs within this industry sector pay higher than the statewide average.



Source: The Washington Economics Group (WEG).

**F. Federal, State and Local Fiscal Revenues Generated by Venture Capital (VC) and VC-Backed Private Equity (PE) Investment Activities in Florida**

The economic impacts of VC and VC-Backed PE investment result in annually recurring Fiscal Revenues for Federal, State & Local governments. These arise via *direct, indirect* and *induced* economic effects due to increased economic activity. **In total, \$9.8 billion in Fiscal Revenues have been generated between 2012 and 2021. Of this total, over \$6.6 billion (or 68 percent) flows to the Federal government, and just over \$3.1 billion (or 32 percent) flows to the State as well as Local governments within Florida as shown in Table 9 below.**

**Table 9. Fiscal Contributions Generated by VC and VC-Backed PE Investment Activities in the State of Florida (2012-2021) (\$ Thousands)**

Impact on:	Federal Taxes	State and Local Taxes	Total
Labor	\$3,100,986	\$6,755	\$3,107,741
Capital	\$58,446	\$0	\$58,446
Indirect Business Taxes	\$226,731	\$3,004,954	\$3,231,685
Households	\$2,915,949	\$27,062	\$2,943,011
Corporations	\$346,030	\$101,209	\$447,240
<b>Total Tax Revenues</b>	<b>\$6,648,142</b>	<b>\$3,139,981</b>	<b>\$9,788,122</b>

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

In conclusion, the impacts of both the Venture Capital and private equity industries in Florida are significant and growing, especially within the last five years. Most of these impacts occur in South Florida, however, there is significant investment activity in the fast-growing Tampa Bay and Orlando regions as well. This activity makes Florida well-positioned to diversify its economy away from the more traditional tourism and agriculture industries, helping to make Florida more competitive and a true leader in technological innovation within the 21<sup>st</sup> Century.

## **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:

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

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 of output produced in industry "j". The coefficients  $a_{jI}$  represent the amount purchased from industry "j" for each dollar spent on capital goods within the region. The variables  $f_j$  represents 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 impact 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: Economic Glossary**

### Definitions of Economic Terms Used in the Analysis

Term	Definition
<b><i>Employment (Jobs)</i></b>	Total of full-time or part-time jobs.
<b><i>Household (Labor) Income</i></b>	All forms of employment income, including Employee Compensation (wages and benefits) and Proprietor Income.
<b><i>Gross Domestic Product (GDP)</i></b>	The increased value of a product as a result of the economic inputs (labor and capital) expended at a given stage. In the IMPLAN Model, GDP is the sum of: Employee Compensation, Proprietor Income, Other Property Type Income (Interest) and <i>Indirect Business Taxes</i> .
<b><i>Economic Impact</i></b>	Total value of all transactions attributed to an activity.
<b><i>Direct Effects</i></b>	The set of expenditures applied to the predictive model (i.e., I/O multipliers) for impact analysis. It is a series (or single) of production changes or expenditures made by producers/consumers as a result of an activity or policy. These initial changes are determined by an analyst to be a result of this activity or policy. Applying these initial changes to the multipliers in an IMPLAN model will then display how the region will respond, economically to these initial changes.
<b><i>Indirect Effects</i></b>	The impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money leaks from the local economy, either through imports or by payments to value added. The impacts are calculated by applying <i>Direct Effects</i> to the Type I Multipliers.
<b><i>Induced Effects</i></b>	The response by an economy to an initial change ( <i>direct effect</i> ) that occurs through re-spending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not a leakage to the regional economy. This money is re-circulated through the household spending patterns causing further local economic activity.

### **Appendix III: 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-sector summarizations are used in this 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 **Visitor Industry**.

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**Table A-1. Total Jobs Supported in Florida by VC and VC-Backed PE Investment  
Activities (2012-2021)**

Industry	Impacts			Total
	Direct	Indirect	Induced	
Agriculture & Forestry	21,165	3,748	812	25,724
Mining	292	125	24	440
Utilities	111	305	290	706
Construction	0	1,493	1,400	2,893
Manufacturing	26,061	2,385	1,127	29,574
Wholesale Trade	0	5,471	3,122	8,594
Retail Trade	8,811	1,701	19,423	29,935
Transportation & Warehousing	7,675	8,679	5,282	21,636
Information	20,151	5,687	2,009	27,847
Finance & Insurance	9,366	9,897	10,815	30,078
Real Estate	0	7,551	11,325	18,876
Professional Services	50,576	21,388	6,861	78,826
Company Management	0	4,413	1,439	5,852
Administrative	0	24,642	8,936	33,579
Educational Services	0	319	3,145	3,464
Health & Social Services	37,911	520	24,607	63,038
Arts, Entertainment & Recreation	11,354	4,737	3,773	19,864
Accommodation & Food Services	0	6,114	15,733	21,846
Other Services	24,738	5,028	9,950	39,717
Government & Other	0	1,298	1,216	2,514
<b>Total All Industries:</b>	<b>218,211</b>	<b>115,503</b>	<b>131,289</b>	<b>465,003</b>

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

**Table A-2. Household Income Created in Florida by VC and VC-Backed PE Investment  
Activities (2012-2021) (\$ Thousands)**

Industry	Impacts			Total
	Direct	Indirect	Induced	
Agriculture & Forestry	\$700,000	\$123,950	\$26,845	\$850,795
Mining	\$7,599	\$3,257	\$613	\$11,468
Utilities	\$20,271	\$55,578	\$52,814	\$128,663
Construction	\$0	\$84,938	\$79,610	\$164,548
Manufacturing	\$1,987,925	\$181,959	\$85,986	\$2,255,870
Wholesale Trade	\$0	\$517,351	\$295,224	\$812,575
Retail Trade	\$312,816	\$60,384	\$689,595	\$1,062,795
Transportation & Warehousing	\$323,585	\$365,917	\$222,676	\$912,178
Information	\$1,939,792	\$547,489	\$193,432	\$2,680,713
Finance & Insurance	\$621,178	\$656,423	\$717,273	\$1,994,873
Real Estate	\$0	\$185,831	\$278,715	\$464,546
Professional Services	\$3,963,223	\$1,676,016	\$537,643	\$6,176,883
Company Management	\$0	\$489,362	\$159,607	\$648,970
Administrative	\$0	\$1,005,165	\$364,520	\$1,369,685
Educational Services	\$0	\$13,569	\$133,662	\$147,231
Health & Social Services	\$2,385,680	\$32,727	\$1,548,453	\$3,966,860
Arts, Entertainment & Recreation	\$362,902	\$151,400	\$120,590	\$634,892
Accommodation & Food Services	\$0	\$177,794	\$457,500	\$635,293
Other Services	\$1,034,662	\$210,304	\$416,166	\$1,661,132
Government & Other	\$0	\$119,453	\$111,959	\$231,412
<b>Total All Industries:</b>	<b>\$13,659,633</b>	<b>\$6,658,865</b>	<b>\$6,492,884</b>	<b>\$26,811,381</b>

Note: Total may not equal the sum of all due to rounding.

Source: The Washington Economics Group (WEG).

**Table A-3. GDP (Value-Added) Impacts on Florida Generated by VC and VC-Backed PE  
Investment Activities (2012-2021) (\$ Thousands)**

Industry	Impacts			Total
	Direct	Indirect	Induced	
Agriculture & Forestry	\$1,048,763	\$185,705	\$40,220	\$1,274,688
Mining	\$21,763	\$9,327	\$1,755	\$32,845
Utilities	\$86,057	\$235,949	\$224,216	\$546,222
Construction	\$0	\$126,339	\$118,414	\$244,753
Manufacturing	\$3,473,279	\$317,916	\$150,235	\$3,941,430
Wholesale Trade	\$0	\$1,099,616	\$627,492	\$1,727,108
Retail Trade	\$516,557	\$99,713	\$1,138,739	\$1,755,009
Transportation & Warehousing	\$498,506	\$563,721	\$343,049	\$1,405,277
Information	\$4,637,845	\$1,308,991	\$462,476	\$6,409,313
Finance & Insurance	\$908,716	\$960,275	\$1,049,291	\$2,918,282
Real Estate	\$0	\$1,712,853	\$2,568,990	\$4,281,843
Professional Services	\$4,996,709	\$2,113,069	\$677,844	\$7,787,621
Company Management	\$0	\$567,895	\$185,221	\$753,116
Administrative	\$0	\$1,173,940	\$425,725	\$1,599,666
Educational Services	\$0	\$15,439	\$152,082	\$167,520
Health & Social Services	\$2,730,077	\$37,451	\$1,771,988	\$4,539,516
Arts, Entertainment & Recreation	\$577,023	\$240,729	\$191,741	\$1,009,493
Accommodation & Food Services	\$0	\$291,958	\$751,268	\$1,043,226
Other Services	\$1,214,235	\$246,804	\$488,395	\$1,949,435
Government & Other	\$0	\$196,865	\$184,516	\$381,381
<b>Total All Industries:</b>	<b>\$20,709,530</b>	<b>\$11,504,556</b>	<b>\$11,553,656</b>	<b>\$43,767,742</b>

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

**Table A-4. Total Economic Impact on Florida Generated by VC and VC-Backed PE Investment  
Activities (2012-2021) (\$ Thousands)**

Industry	Impacts			Total
	Direct	Indirect	Induced	
Agriculture & Forestry	\$1,795,358	\$317,905	\$68,851	\$2,182,115
Mining	\$110,260	\$47,257	\$8,889	\$166,406
Utilities	\$162,591	\$445,790	\$423,622	\$1,032,003
Construction	\$0	\$231,840	\$217,297	\$449,137
Manufacturing	\$10,744,036	\$983,423	\$464,727	\$12,192,186
Wholesale Trade	\$0	\$1,884,985	\$1,075,660	\$2,960,645
Retail Trade	\$855,019	\$165,047	\$1,884,870	\$2,904,936
Transportation & Warehousing	\$1,054,966	\$1,192,977	\$725,979	\$2,973,921
Information	\$10,055,078	\$2,837,958	\$1,002,671	\$13,895,707
Finance & Insurance	\$2,362,533	\$2,496,580	\$2,728,011	\$7,587,124
Real Estate	\$0	\$2,767,674	\$4,151,044	\$6,918,718
Professional Services	\$8,226,082	\$3,478,746	\$1,115,934	\$12,820,762
Company Management	\$0	\$982,246	\$320,363	\$1,302,609
Administrative	\$0	\$2,167,314	\$785,969	\$2,953,283
Educational Services	\$0	\$22,381	\$220,468	\$242,849
Health & Social Services	\$4,552,561	\$62,452	\$2,954,892	\$7,569,905
Arts, Entertainment & Recreation	\$931,939	\$388,797	\$309,678	\$1,630,414
Accommodation & Food Services	\$0	\$499,986	\$1,286,565	\$1,786,551
Other Services	\$1,975,216	\$401,481	\$794,480	\$3,171,177
Government & Other	\$0	\$339,381	\$318,092	\$657,473
<b>Total All Industries:</b>	<b>\$42,825,639</b>	<b>\$21,714,220</b>	<b>\$20,858,063</b>	<b>\$85,397,920</b>

Note: Total may not equal the sum of all due to rounding.

Source: The Washington Economics Group (WEG).

**Appendix IV:  
The Washington Economics Group (WEG)  
Project Team and Qualifications**



**J. Antonio Villamil**  
Founder and Principal

Tony Villamil is a nationally recognized economist, with over thirty-five years of a successful career as a business economist, university educator, corporate Board Director and high-level policymaker for both federal and state governments. Tony was selected in 2008 as the founding Dean of the School of Business of St. Thomas University, serving successfully until the end of 2013 at which time he resigned to return as senior advisor to the growing economic consulting practice that he founded, The Washington Economics Group, Inc. (WEG), a Florida-based firm established in 1993 upon returning to the State from his public service in Washington, D.C.

Tony is the immediate past Chairman of the Governor’s Council of Economic Advisors of Florida, and during 1999-2000, he was selected by Governor Jeb Bush as his first Director for Tourism, Trade and Economic Development. Previously, he was appointed by President George H. W. Bush as U.S. Undersecretary of Commerce for Economic Affairs, receiving unanimous U.S. Senate confirmation. Presently he is active on Corporate Board of Directors, including Pan American Life Insurance Group (PALIG) and Spanish Broadcasting System (SBS). At PALIG he serves as Chair of the Governance and Nominating Committee of the Board. Tony is currently Chair of the Board Compensation Committee at SBS. He also served in multiple bank boards for over 20 years.

Among civic and professional leadership positions, he is currently a member of the Board of Directors of the Miami-Dade Beacon Council, the official economic development organization of the County. He is also on the Board of Directors of the Greater Miami Chamber of Commerce. He serves as Senior Fellow of the James Madison Institute (JMI) of Tallahassee, Florida.

He earned Bachelor and Master Degrees in Economics from Louisiana State University (LSU), where he also completed coursework for the Ph.D. Degree. In 1991, Florida International University (FIU) awarded Tony 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 the Florida economy, U.S. trade policy and economic development issues.



**Ivan Noltenius**  
Economic Analyst

Ivan Noltenius is an Economic Analyst at The Washington Economics Group. Ivan conducts data acquisition and economic analysis for the multifaceted projects of the firm. Ivan has over five years of experience in financial data analysis as well as accounting.

Prior to working at WEG, Ivan was a hedge fund accountant at Kaufman Rossin (now ALPS), and also worked in operations and managed company financial records at tech startup company 71 Pounds.

Ivan received his Bachelors of Arts degree in Economics with a minor in Mathematics from the University of Memphis. Ivan is a resident of Kendall, Florida.



**Haydee M. Carrion**  
Senior Research Assistant

Haydee M. Carrion 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 28 years. Ms. Carrion holds degrees in Business Administration and Office System Technologies from Miami-Dade College.

**The Washington Economics Group** 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, Latin America and the Caribbean.

Our roster of satisfied clients, over the past 28 years, includes 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 Founder and Senior Advisor J. Antonio (Tony) Villamil. Tony is a former U.S. Under Secretary of Commerce 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:**

*Economic Impact Studies* 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.

*Strategic Business Development Services* are customized to meet client objectives. 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.

*Economic Development Strategies.* The firm supports cities, counties and states in developing targeted economic development plans and strategies to attract, retain and expand high-wage industries. Each plan is based on the factor endowments of the area, and in close coordination with public officials in charge of economic development.

**For a full description of WEG capabilities  
and services, please visit our website at:**  
[www.weg.com](http://www.weg.com)

**The Washington Economics Group**  
Representative Client List 1993-2022

**Multinational Corporations**

ALSTOM	Lockheed Martin
Ameritech International	Lucent Technologies
Bureau Veritas (BIVAC)	MasterCard International
Carrier	MediaOne/AT&T
Carnival Corp.	Medtronic
Esso Inter-America	Merck Latin America
FedEx Latin America	Microsoft Latin America
Genting Group	Motorola
Hyatt	Phelps Dodge
IBM	SBC Communications
Joseph E. Seagram & Sons, Inc. (Vivendi)	Telefonica Data Systems
KPMG	Visa International

**Construction and Real Estate Development Firms**

Areas USA, Inc.	Inland Port Systems, LLC
Barron Collier Companies	Landstar Development
Berkowitz Development Group	LXR Luxury Resorts
Boca Developers	Miami Asset Management Company, Inc.
CDS International	Miapolis, LLC
Century Homebuilders	Odebrecht Construction, Inc.
Codina Realty	Palazzo Las Olas Group, LLC
Chateau Group	Tate Capital
Empire World Towers, LLC	The Allen Morris Company
ESJ Capital Partners	The Related Group, Inc.
Ferro Investment Group, LLC	The Rouse Company
Flagler Development	The St. Joe Company
Florida East Coast Realty Inc.	Trammel Crow Company
Florida Realtors	WCI Development Companies

**Engineering, Planning and Design Firms**

AECOM (DMJM Harris)	HNTB
Atkins (PBSJ)	Kimley-Horn and Associates
CDM Smith (Wilbur Smith Associates)	Parsons Brincherhoff
Golder Associates	Redevelopment Management Associates (RMA)

**Colleges and Universities**

Alabama State University	Rocky Mountain College of Art and Design
Barry University	San Ignacio College
Eckerd College	Sistema Universitario Ana G. Méndez
Embry-Riddle Aeronautical University	St. Thomas University
Florida Agricultural & Mechanical University	University of Central Florida
Florida International University	Universidad Politécnica de Puerto Rico
Full Sail University	University of Florida
Keiser University	University of Miami
Los Angeles Film School	UM's Rosenstiel School of Marine and Atmospheric Science
Miami-Dade College	University of South Florida/ENLACE
Palm Beach Medical Education Corporation	University of South Florida

**Law Firms**

Becker & Poliakoff	Gloria Roa Bodin, Esq.
Bilzin Sumberg	Greenberg Traurig, LLP
Carlton Fields	Holland & Knight, LLP
Colson Hicks Eidson	Steel Hector & Davis
DLA Piper	Tew Cardenas, LLP
Dunbar & Dunbar	

**Financial Institutions**

ABN-AMRO Bank	FIBA
Advantage Capital	Fiduciary Trust International
AMERANT (former Mercantil Bank N.A.)	First Union National Bank (Wells Fargo)
Allen & Company	Hemisphere National Bank
BNP Paribas	HSBC/Marine Midland
BAC Florida	International Bank of Miami (First United Bank)
Bank Atlantic Corp.	Lazard Freres & Co.
BankUnited, FSB	Pan American Life Insurance Group (PALIG)
Barclays Bank	PointeBank, N.A.
Century Bank	Seitlin Insurance
ESJ Capital Partners	Sun Trust Corporation
Espirito Santo Bank	The Equitable/AXA Advisors
FBA	TD Bank, N.A.
	Union Planters Bank of Florida (Regions)

**Florida-Based Companies**

All Aboard Florida	Iberia Tiles
AmericanAirlines Arena	International Speedway Corporation (ISC)
Atlantic Sapphire	Jungle Island
BMI Companies	Lake Nona
Communikatz	Mercy Hospital
CoreMessages	Miami Dolphins
Daytona International Speedway	Nopetro LLC
Dosal Tobacco	Palm Beach Premier
Drivers Club Miami	Resorts World Miami (RWM)
Farm Stores	Ron Sachs Communications
Fishkind & Associates	Rolling Loud
Florida Hospital	Sprint of Florida
Florida Marlins	eMerge Americas
Florida Power & Light	The Biltmore Hotel
Flo-Sun Sugar Corp.	The Heat Group
Greater Miami Convention & Visitors Bureau	Ultimate Software
Greater Ft. Lauderdale Alliance	Ultra Music Festival
Homestead-Miami Speedway	VICTUS

**Non-Florida-Based Institutions**

Darlington Raceway	Richmond International Raceway
Georgia Retail Federation	Talladega Superspeedway
Illinois Retail Merchant Association	The Seed Foundation
Indiana Retail Council	United States Tennis Association (USTA)
Kansas Speedway	Virginia International Raceway
Martinsville Speedway	Washington Retail Association
New Jersey Motorsports Park (NJMP)	Watkins Glen International
Progress Energy	

**Public Institutions and Non-Profit Organizations**

Baptist Health South Florida	Independent Colleges and Universities of Florida (ICUF)
BayCare Health System	Indian River County Chamber of Commerce
Broward County Public Schools	Inter-American Development Bank
Career Source North Central Florida	Jackson Health Systems
Chapman Partnership	Jacksonville Chamber of Commerce
Citizens of Clean Energy	Jewish Community Services
City of Boca Raton	Lakeland Regional
City of Coral Gables	Louisiana Committee for Economic Development
City of Doral	Miami Marine Stadium
City of Plantation	Miami Museum of Science
City of West Palm Beach	Miami-Dade County Public Schools
Conservatives for Clean Energy	Miami-Dade Expressway Authority
Economic Development Commission of Collier County	Miami Downtown Development Authority
Economic Development Commission of Lee County	Nicklaus Children's Health System
Economic Development Commission of Mid-Florida	Palm Beach International Agricultural Summit
Enterprise Florida, Inc.	Port of Miami
Farm Share, Inc.	SEIU Florida
Florida Bankers Association	South Florida Progress Foundation
Florida Citrus Mutual	Space Florida
Florida Chamber of Commerce	St. Mary's Medical Center
Florida International Bankers Association	State of Florida
Florida Institute for Commercialization of Public Research	SW Florida Regional Chamber of Commerce
Florida League of Cities	Sylvester Comprehensive Cancer Center
Florida Nursing Homes Alliance	Tampa-Hillsborough Expressway Authority
Florida Outdoor Advertising Association	Tampa General
Florida Ports Council	The Beacon Council
Florida Retail Association	The Florida Bar
Florida Sports Foundation	The Florida Chamber Foundation
Florida Venture Forum	The Florida Coalition for Capital
Friends of Miami Marine Stadium	United Nations Economic Development Program
Greater Tampa Chamber of Commerce	United Teachers of Dade
Greater Tallahassee Chamber of Commerce	Visit Florida
	Zoological Society of Florida

**Latin America-Based Institutions**

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