

Economic Impact of Georgia-Based Venture Capital Funds, 2005-2015



Prepared for:

Invest Georgia



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Executive Summary

The management team at Invest Georgia approached the Center for Economic Development Research at Georgia Tech with the idea of researching the economic impact of venture capital in the State of Georgia, as defined by the number of jobs, level of income, state tax revenues created, and total economic output that can be attributed to venture capital invested in the state. The study was conducted in the 2nd and 3rd quarters of 2017 and utilized venture fund investments made by Georgia-based venture funds between 2005 and 2015.

The staff at Invest Georgia reached out to Georgia-based venture capital funds and requested data on the level of their Georgia investments during the time under review and the number of jobs that resulted from those investments. In general, the investments were made across 5 major sectors – healthcare IT, software/cloud, financial technology (FinTech), cybersecurity, and marketing communications (Marcom)/software as a service (SaaS). After consolidating all of the provided information, the staff at Invest Georgia estimates that they gathered between 20 to 30 percent of *verifiable* Georgia-based investments for the 10-year period. As such, rather than \$231.2 million of venture capital investment reported, the actual number is at a minimum closer to \$1.2 billion, and possibly much higher. As such, this analysis modeled the economic impact of \$1.2 billion of investment across the five industries above. It is anticipated that additional studies will be completed in 2018 and 2019, and the hope is that for those studies, more of the Georgia-based venture capital industry will be able to provide the necessary data so that the economic impact of venture capital in the state can be calculated with better data and fewer assumptions.

Under the assumptions presented above, it is estimated that the cumulative Georgia-based venture capital investments created more than 5,000 jobs between 2005 and 2015 in the five sectors listed above. These jobs, in-turn, supported an additional 14,000 jobs across Georgia. In total these 19,000+ jobs represented more than \$1.2 billion in personal income; more than \$2.2 billion contribution to GDP; and more than \$4.4 billion in total economic output.

These jobs also generated a significant amount of revenue to both state and local governments in Georgia. The model estimates that this number of jobs across these industries generates more than \$23.5 million in state and local tax revenue annually. Of that total, \$12.1 million (or 51.7 percent) accrues to the State of Georgia in the form of sales taxes (\$4.8 million), income taxes (\$4.6 million), corporate taxes (\$1.3 million) and other various taxes and revenues (\$1.4 million).

SECTION 1

Introduction

In 2013, the Georgia General Assembly established the Invest Georgia Program by statute. Invest Georgia (IG) is a long-term investment program that was created “to grow and mentor current and new Georgia Venture Capital funds.” The overall goal is to help Georgia-based small business grow in the state and improve their opportunities for success by providing capital between the initial funding stages and the institutional growth and expansion stages. The program prioritizes return on investment (ROI), but also defines “success” by the extent to which the Program will support Georgia economic and social development.¹

The management team at Invest Georgia approached the Center for Economic Development Research (CEDR) at Georgia Tech with the idea of researching the economic impact of venture capital in the State of Georgia, as defined by the number of jobs, level of income, state tax revenues created, and total economic output that can be attributed to venture capital invested in the state. The study was conducted in the 2nd and 3rd quarters of 2017 and utilized venture fund investments made by Georgia-based venture funds between 2005 and 2015.²

Section 3 of this report presents the initial work in quantifying this economic impact. The staff at Invest Georgia reached out to Georgia-based venture capital funds and requested data on the level of their Georgia investments during the time under review and the number of jobs that resulted from those investments. Nearly all of the funds responded to this request – some of the funds had detailed data, some only released a limited amount of data, and some either had little historical data or were reluctant to release proprietary information. After consolidating all of the provided information, the staff at Invest Georgia estimates that they gathered between 20 to 30 percent of *verifiable* Georgia-based investments for the 10-year period. However, this subset of information was enough to establish several assumptions in order to arrive at a final economic impact estimate. It is anticipated that additional studies will be completed in 2018 and 2019, and the hope is that for those studies, more of the Georgia-based venture capital industry will be able to provide the necessary data so that the economic impact of venture capital in the state can be calculated with more precision and fewer assumptions.

Because the economic impact results for this initial study are based on limited data, and because too often the real effectiveness of a program can get lost in nuanced data, Section 4 provides two real-life case

¹ <http://www.investgeorgia.net/fund-overview/>

² 2015 is the latest year for which data is available.

studies from Georgia-based venture funds which establish the effectiveness and impact that venture capital has on Georgia companies. These two brief examples provide an appropriate compliment to the numbers, and clearly demonstrate how venture capital in Georgia has had a positive impact on jobs and company creation at the local and state level.

SECTION 2

Economic Impact Methods

Economic Base Theory

The foundation of this analysis is economic base theory which states that economic growth occurs when there is an increase in the flow of money into an area through the export of goods and/or services. The three major components of impact in economic base theory are:

1. **Direct Impacts.** The initial economic activity that results from changes in production or expenditures by producers and/or consumers.
2. **Indirect Impacts.** The economic activity that results from local industries buying goods and services from other local industries. This cycle of spending continues until all the money leaks out from the regional economy.
3. **Induced Impacts.** The economic activity that results from the spending of employees' labor income. This cycle of household spending continues until all the money leaks out from the regional economy.

The sum of these three — direct, indirect, and induced — represents the “total” economic impact of the economic activity under review. These impacts are commonly measured in terms of the number of jobs and/or amount of income the activity represents, and can also be measured in terms of contribution to GDP (“value added”) or total output, which is the final value of industry production.³

In the case of Georgia-based venture capital, the dollars are, by definition, already in the state. However, those investment dollars have a choice as to where they will be invested. Obviously if there are opportunities for a higher return, these dollars could certainly leave the state. Economic base theory says if an activity keeps dollars from leaving an economy, it also has economic impact. If these Georgia-based venture capital dollars stay in Georgia, are invested in companies that create new jobs and income, and those companies in turn create goods and services that bring dollars into the economy, then there is real economic impact associated with the venture capital investments.

The IMPLAN Model

The process described above is simulated using an input-output model of the economy under consideration, which in this case, is the State of Georgia. Specifically, the economic impact analysis was

³ For manufacturing companies, output is sales plus/minus changes in inventory. For service sectors, output is equal to sales. For retail and wholesale trade companies, output equals gross margin, NOT gross sales.

conducted using the nationally recognized model, IMPLAN, developed by the Minnesota IMPLAN Group. IMPLAN is an input-output model configurable for any multi-county region, state, or even a single county. For this analysis, an IMPLAN model was built and customized for the State of Georgia using 2015 data on industry interactions within the state, as well as commuting patterns and other demographic information.

SECTION 3

Data and Analysis Results

Data Inputs

The staff at Invest Georgia reached out to several Georgia-based venture capital funds to get information on the level of investment in Georgia, the industries in which those investments were made, and the number of new jobs resulting from those investments. Actual primary data was provided by Noro-Moseley Partners, Fulcrum EP, TTV Capital, BIP Capital, TechOperators, GRA Venture Fund, Mosley Ventures, UPS Strategic Enterprise Fund, Forte Ventures, TechSquare Ventures, C&B Capital, and BLH Ventures. For obvious reasons the data was combined and aggregated by the staff at Invest Georgia to protect the confidentiality of both the companies and the funds. In general, the investments were made across 5 major sectors – healthcare IT, software/cloud, financial technology (FinTech), cybersecurity, and marketing communications (Marcom)/software as a service (SaaS) – in the shares shown in Figure 1.

Figure 1: Distribution of Georgia-Based Venture Capital Investments

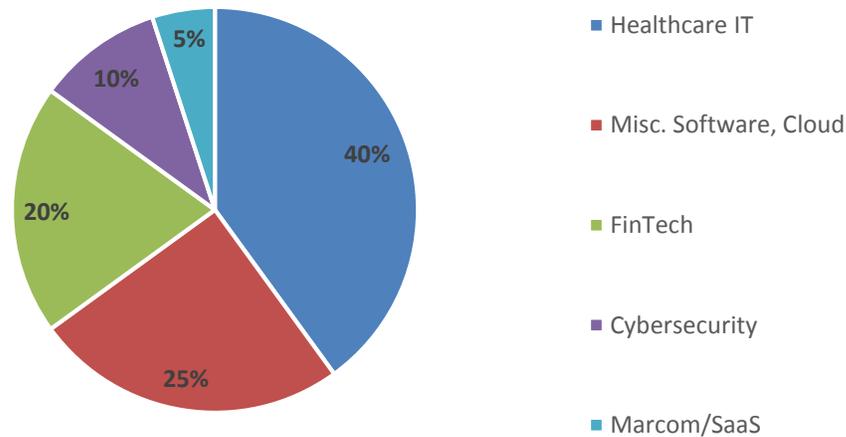


Table 1 shows the level of annual investment made by these funds since 2005, and the cumulative number of jobs that have resulted from those investments. Between 2005 and 2015, these companies reported \$231.2 million in venture capital investments in Georgia companies. As mentioned in Section 1, this data represents about 20 percent of the verifiable Georgia-based investments for the 10-year period. Based on public records from NVCA, Pitchbook, PWC, MoneyTree, etc., we know that \$6 billion has been invested into Georgia companies during this 10-year period. The experts at Invest Georgia estimate that, at a minimum, 20 percent of that \$6 billion has come from Georgia-based venture funds. That would mean

Table 1: Reported Georgia-Based Venture Capital Investments and Jobs Supported

	Annual Investments	Cumulative Jobs Supported
2005	N/A	6
2006	\$12,307,180	23
2007	\$16,621,261	83
2008	\$10,223,211	86
2009	\$4,947,000	122
2010	\$14,665,400	432
2011	\$31,569,851	449
2012	\$19,860,000	552
2013	\$27,191,799	672
2014	\$32,289,000	1,036
2015	\$61,438,000	986

Source: Invest Georgia

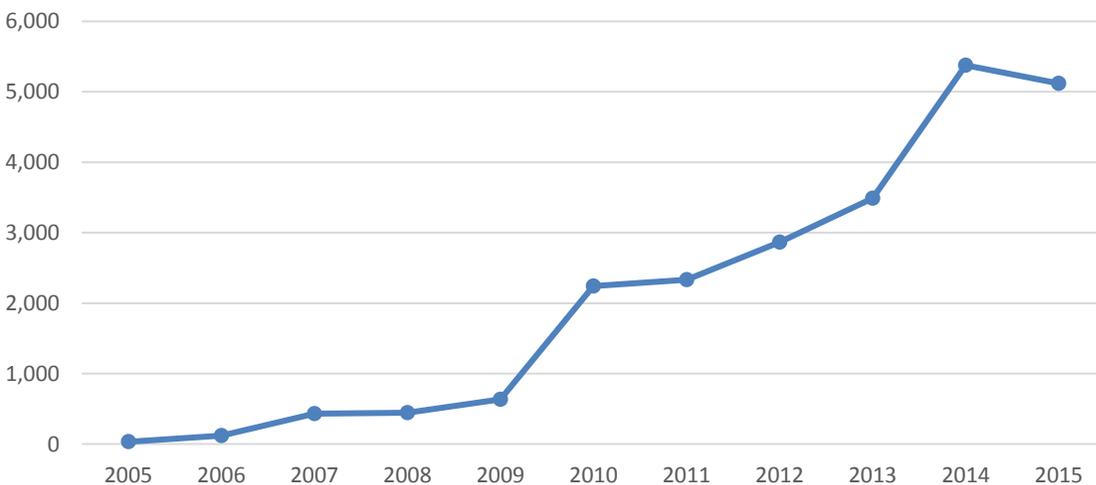
that rather than \$231.2 million, the actual number is at a minimum \$1.2 billion, and possibly much higher. For this analysis, we modeled the economic impact of \$1.2 billion of investment, and assumed that the data in Table 1 is representative of all venture capital investments made in Georgia by Georgia-based venture capital funds during the 10-year period. Obviously, it would be better to get data for all investments and actual job creation data from every Georgia-based venture capital fund. It is anticipated that additional studies will be completed in 2018 and 2019, and the hope is that for those studies, more of the Georgia-based venture capital industry will be able to provide the necessary data so that the economic impact of venture capital in the state can be

calculated with better data and fewer assumptions.

Analysis Results

Under the assumptions presented above, the cumulative Georgia-based venture capital investments between 2005 and 2015 created more than 5,000 jobs between 2005 and 2015. Figure 2 shows the growth of those jobs over the period. These 5,000 jobs represent more than \$500 million in personal income, \$972 million contribution to Georgia’s Gross State Product (GSP); and \$2.4 billion in total economic output (Table 2).

Figure 2: Direct Employment Supported by Georgia-Based Venture Capital



In addition to the jobs created by the companies that received the capital investments, there are thousands of indirect and induced jobs supported across the state because of these investments. In 2015, more than 5,000 direct jobs in these five industries supported an additional 14,000 indirect and induced jobs across Georgia. Those jobs represented more than \$700 million in personal income; more than \$1.2 billion contribution to GDP; and more than \$2 billion in total economic output (Table 2).

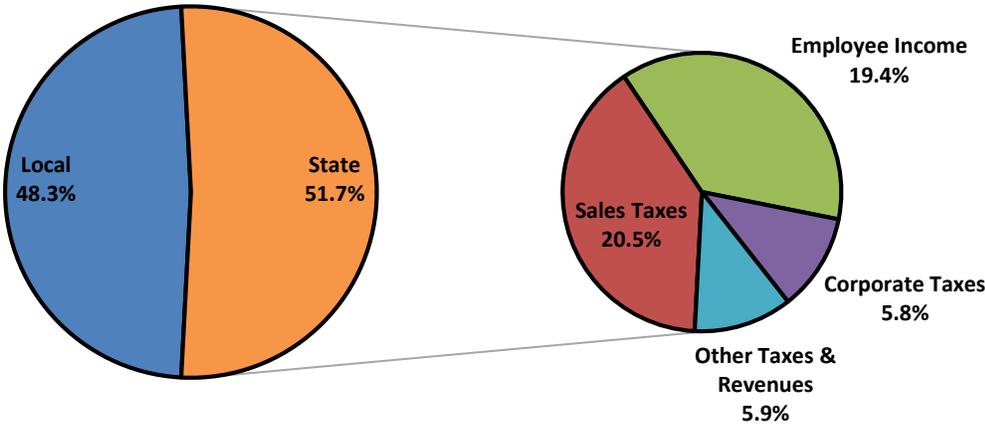
Table 2: Economic Impact of Georgia-Based Venture Capital in Georgia (2015)

	Employment	Labor Income	Value Added	Economic Output
Direct	5,118	\$512.9	\$972.7	\$2,354.7
Indirect & Induced Impact	14,048	\$711.3	\$1,219.4	\$2,086.9
Total Economic Impact	19,116	\$1,224.2	\$2,192.1	\$4,441.7
Multiplier	3.7	2.4	2.3	1.9

Source: IMPLAN Model

These jobs also generated a significant amount of revenue to both state and local governments in Georgia. The model estimates that this number of jobs across these industries generates more than \$23.5 million in state and local tax revenue annually. Of that total, \$12.1 million (or 51.7 percent) accrues to the State of Georgia in the form of sales taxes (\$4.8 million), income taxes (\$4.6 million), corporate taxes (\$1.3 million) and other various taxes and revenues (\$1.4 million) (Figure 3).

Figure 3: Distribution of State and Local Tax Revenue



Again, these results are based on a significant sample of Georgia-based venture capital funds and their respective investments within the State of Georgia. In future years, hopefully more funds will participate and provide data for this analysis. There will always be some gaps in the data as fund managers retire and become inactive or because certain information is simply not accessible. For example, there are at least

a dozen funds and/or family offices that were (and still are) active during the 2005 to 2015-time period that for one reason or another were not able to provide significant information for this analysis. Similarly, there are at least 5 large venture funds that are no longer active that were active sometime in the 2005 to 2015-time period. In the future, hopefully more funds will collect and share data with Invest Georgia so that this analysis can be updated on an annual basis and provide an increasingly accurate estimate of the impact Georgia-based venture capital has on the state's economy.

SECTION 4

Case Studies

As mentioned in Section 1, the real effectiveness of a program can get lost in the myriad of numbers presented in “traditional” economic impact studies. As such, Invest Georgia has provided two case studies to demonstrate the effectiveness and firm-level impact that venture capital has on Georgia companies. These brief examples provide an appropriate compliment to the numbers, and clearly show how venture capital in Georgia has had a positive impact on jobs at the local level.

Wellcentive

Wellcentive, a Georgia-based healthcare information technology company, was tracked by Noro-Moseley Partners (NMP) starting in 2007. The company was initially funded by its founders, and in 2011, NMP led the Company’s first round of venture investment. At that time, the company’s annual revenue was under \$1 million and it had less than 15 employees. The initial funding helped drive sales and marketing to help the Company establish its leadership in the emerging population health market. Allen Moseley, NMP’s Wellcentive Board member, led the effort to recruit a new CEO – Tom Zajac – in 2013 and worked closely with Tom and the company’s founders over the 5-year holding period of NMP’s investment. In 2014, NMP partnered with Summit Partners for an additional round of venture financing to fund an additional expansion for the company. During NMP’s holding period, Wellcentive grew to roughly \$20 million in recurring revenue and 115 employees.

In July 2016, Wellcentive was acquired by Philips, a Dutch conglomerate, providing NMP a return on its investment of nearly 8x. Philips subsequently made Atlanta the headquarters for its population health business, and Wellcentive has added approximately 50 additional employees since the acquisition.

Ingenious Med

Ingenious Med is another Georgia-based healthcare information technology company. In early 2006, BIP Capital met with founder Steve Liu who is the creator and developer of IM1 — a point-of-care software solution that enhances physician work-flow within a hospital setting. The software improves the accuracy of physician reporting and passes data from bedside encounters directly to the patient’s electronic medical record.

In 2006, the Ingenious had revenues of only \$400K and 6 employees. BIP Capital's first investment was based on the company's workflow platform for hospital rounding physicians. BIP Capital played a key role in the company's strategic development and led in the hiring of the management team, including hiring Hart Williford to be the company's CEO. BIP Capital made follow-on investments into the company based on the company's ability to rapidly grow revenue, improve margins, and attract key talent. By 2013, the company had revenues of \$21.1 million and had 124 employees.

In 2014, the company was purchased by Kaiser Permanente Ventures and Ascension Ventures providing BIP Capital a return on its investment of nearly 6x. By 2016, the company had grown to nearly \$45 million in revenue and employed 218 people.

Both Wellcentive and Ingenious Med demonstrate the how venture capital invested in Georgia-based business can serve as an economic development engine, create good jobs, and have significant economic impact on the State of Georgia.