



| University of New Haven

COLLEGE OF BUSINESS

# GREATER NEW HAVEN ECONOMIC ACTIVITY REPORT

Spring 2017



*Prepared by*

**New Haven Economic Performance Laboratory**

*in association with*

**Department of Economics, College of Business,  
University of New Haven**

**Entrepreneurship and Innovation Program,  
University of New Haven**

*This Report is generously underwritten by the College of Business Advisory Board.*

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May, 2017

The Spring, 2017 edition of the Economic Activity Report, published by the New Haven Economic Performance Laboratory, represents a collaborative and pedagogical effort by faculty and students of the Department of Economics in association with the newly created Entrepreneurship and Innovation Program. It contains socioeconomic information and analysis that focuses on the economic conditions of the broader New Haven Region. The Spring, 2017 report (as well as previous reports) can also be found on the laboratory's website ([www.nhepl.org](http://www.nhepl.org)).

This issue contains a set of economic data series analyzed by Department of Economics capstone students. Students were asked to appraise and evaluate regional data series. This was intended to further their understanding of regional economic climate and conditions but also to provide clear, understandable interpretations of such climate and conditions. The University of New Haven student analysts of today are the analysts on whom our future turns. Their names and e-mail addresses are included in this report. Please do not hesitate to contact them.

Also included in this report are several short pieces jointly prepared by faculty and students. Especially noteworthy are the New Haven Regional Economic Performance Index, a look at the impact of General Electric moving its headquarters from Fairfield to Boston, and the fortunes of the venture capital industry in our state. Connecticut is confronting budgetary difficulties as well as a difficult economic climate. The purpose of this report and future reports is to identify Connecticut's and the New Haven Region's strengths and weaknesses and provide insights and guidance so as to foster economic development and growth and a revitalization of the state's economy; for example, the need to spur entrepreneurship and innovation.

In addition to visiting the Laboratory's website, you are invited to visit another student initiative that involves posts, commentary, and noteworthy contributions from students, faculty, alumni, and members of the broader community: *The University of New Haven Economics Collective* (<http://unheconomiccollective.ning.com>). The Collective, as it is affectionately known, is a thought-leadership and learning space that fosters the integration of theory, technical competencies, real-life learning, and communication skills.

Kind regards,

Brian T. Kench, Ph.D.  
Dean, College of Business

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While national economic performance continued to improve in 2016, in general terms, Connecticut economic performance and that of the region, despite improving, lagged the nation. This report specifically highlights Connecticut's lagging economic performance in comparison to its own prior performance, not just in comparison to other states and the nation.

According to the forecast of the New Haven Region Economic Performance Index (constructed by Professor Esin Cakan, Ph.D., and Diane Soto '18), the near-term prediction suggests a continued, albeit disheartening, steady state of slow, anemic, improvement. Underpinning this general malaise is the departure of General Electric Corporation, a lack of traditional venture capital investment in entrepreneurial ventures in the State of Connecticut, a looming budget crisis for the State of Connecticut, and unfunded pension liabilities.

In January, 2016, General Electric Corporation announced that it was moving its corporate headquarters from Fairfield, Connecticut, to Boston, Massachusetts. Anecdotal evidence suggested, based upon casual observations, that GE's departure or GE-Xit (as we call it) significantly and adversely impacted the State of Connecticut well beyond the senior executive jobs. Professors Armando Rodriguez, Ph.D., and Brian A. Marks, J.D., Ph.D., in conjunction with economics students, estimate a loss of jobs just in excess of 70,000, not the 200 jobs often reported. Media reporting on the GE-Xit provides a long list of blemishes such as "over"-regulation, adverse impacts on real estate prices, and loss of self-esteem. Connecticut, once considered a climate friendly state for innovation, has transformed, correctly or incorrectly, into an environment unfriendly for business, entrepreneurship, and innovation. In fact, as this issue went to print, rumors swirled that AETNA, after 150 years, was proceeding with plans to relocate its corporate headquarters from Connecticut, and Governor Malloy acknowledged the same. If GE's departure from Fairfield was a "punch to the gut," AETNA's departure (A-Xit) could be considered a blow to the head: Hartford, the state capital itself. And, if the GE-Xit analysis of Rodriguez and Marks serves as a barometer, the impact of the A-Xit for the state will be more than just executive jobs.

Adding further insult to injury for the State of Connecticut is the lag in venture capital investment in the state. In a forthcoming report on Venture Capital Investment, 2016 venture capital investment nationally was weak despite the presence of unicorns and, for the State of Connecticut, even weaker. In fact, the report finds that the State of Connecticut lags in all stages of venture capital investment vis-à-vis the nation since the 2008 Great Recession. Although lagging the nation, the report also identifies certain potential strengths in venture capital investment since the Great Recession. A summary of the Venture Capital Report's assessment of the State of Connecticut is contained in this report for contextual purposes.

The government of the State of Connecticut has sought to counteract or address the above-mentioned economic impact through various recent state-wide initiatives and grants; e.g., the Connecticut State Legislature passed Senate Law 502 that offers financial support for institutions of higher education to facilitate entrepreneurship and innovation. A re-examination of the state regulatory environment in which entrepreneurs operate is also crucial. Government alone is not the answer; all constituent interests must contribute to foster entrepreneurship and innovation in the State of Connecticut. The University of New Haven this past year created a University-wide program as part of its own initiative to foster innovation. It created an Entrepreneurship and Innovation Program that is unique in its construct; it is cross-disciplinary in nature; it brings together undergraduate and graduate students and faculty from all of its five colleges, and local, regional, and national entrepreneurs for the purpose of mentoring and guiding the next generation of innovators, intrapreneurs, and entrepreneurs. For any Connecticut Yankee, "challenges create opportunities." This report assists in identifying the challenges. It is hoped that future reports will provide recommendations and identify opportunities so that we may "begin anew," and reinvigorate Connecticut's economic development and growth.

It should be noted that continued uncertainty and complications remain that could result from Trump Administration policies and programs yet to be enacted. This uncertainty could further complicate matters for the State of Connecticut and the Greater New Haven Region.

The bottom line: Connecticut historically has been a hotbed for entrepreneurship and innovation; it can be so again.

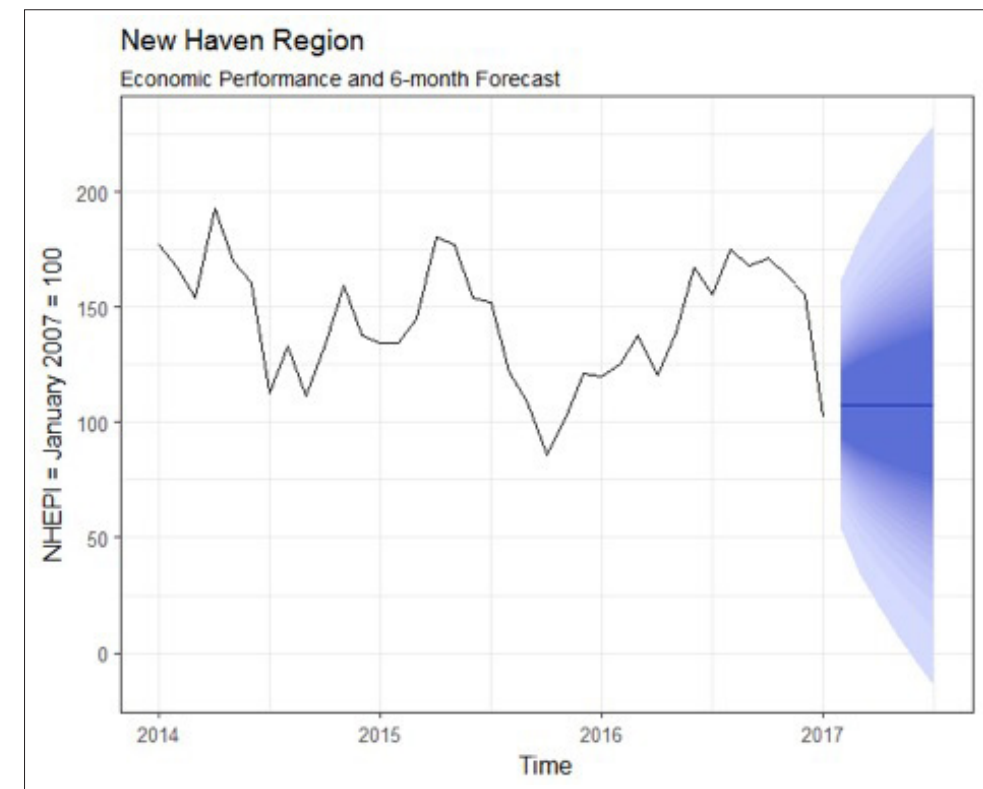
<sup>1</sup> President John F. Kennedy's Inaugural Address, January 20, 1961.

Comments should be directed to Esin Cakan, Ph.D. at [ecakan@newhaven.edu](mailto:ecakan@newhaven.edu); and Diane Soto '18 at [dsoto3@unh.newhaven.edu](mailto:dsoto3@unh.newhaven.edu).

The New Haven Region Economic Performance Index ("NHREP Index") as constructed in April, 2017, gauges the performance of the economy for the southern part of the State of Connecticut, specifically, New Haven County and the surrounding region. As illustrated in Figure 1, below, the NHREP Index reflects data as of January 2017. The NHREP Index decreased 34.5% from the previous month and 14.9% from the previous year; the index was 102 as of January 2017.

The NHREP Index is composed of five (5) components as set forth in Table 1: The Federal Reserve Monthly Leading Index for Connecticut (FED Leading Index - CT); Connecticut Initial Claims for Unemployment Benefits; New Haven Building Permits; Average Weekly Hours of Work of New Haven Employees; and Average Weekly Earnings of all New Haven Employees. Similar to the Fall, 2016 Report, unemployment claims and housing permits were not a drag on the index; earnings continued to improve from last spring (see Note, below, Average Weekly Wages for Employees). The Federal Reserve's Connecticut Leading Index, however, continues, as with the Fall, 2016 Report, to be a drag on the index.

**Figure 1**



**Table 1**

	Percent Change from Previous Month	Percent Change from Previous Year
NHREP Index	-34.5%	-14.9%
FED Leading Index – CT	-68.1%	-46.4%
Initial Claims Unemployment Benefits – CT	12.8%	2.7%
Building Permits – New Haven	53.0%	100.1%
Average Weekly Hours of Work – New Haven Employees	1.85%	0.0%
Average Weekly Earnings – New Haven Employees	3.0%	4.5%

Notwithstanding the current index decline, the Spring, 2017 forecast remains relatively constant, with minimal improvement. This forecast suggests continued weakness and a further downward revision from the Fall, 2016 Report in the economy in the near term. In fact, the forecast as shown in Table 2 is revised downward from the Fall, 2016 Report.

Table 2

Month	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017
Fall, 2016	98.3	97.5	96.7	98.0	98.2	103.6	107.8	116.6	110.2	105.3				
Spring, 2017									102.2	102.2	102.0	102.0	102.1	102.1

**Note: Average Weekly Wages for Employees**

Comments should be directed to Jurgena Hysolli at [jhyso1@unh.newhaven.edu](mailto:jhyso1@unh.newhaven.edu).

Average Weekly Wages for Employees generally declined in 2016, especially toward the latter part of the year as depicted in Figure 2. 2017 shows improvement vis-à-vis 2016, but has yet to match 2015 performance.

Figure 2



**About the Average Weekly Wages for Employees in Private Establishments in New Haven-Milford, CT (MSA):** Data are from the Federal Reserve Bank of St. Louis FRED data (<https://research.stlouisfed.org/fred2/>) for the New Haven-Milford region of Connecticut for those working in Private Establishments for 2014, 2015, and 2016 (1st half).

In sum, the NHREP Index suggests nominal expansion in the region's economy, at least in the near term. The longer-term regional forecast, however, continues to suggest weaknesses.

**About the Performance Index:** All data are seasonally adjusted and modified for differences in price levels where appropriate. Data are from the Federal Reserve Bank of St. Louis FRED data (<https://research.stlouisfed.org/fred2/>). This forecast is based on an ARIMA model and coded in R; the script and data are available upon request.

Comments should be directed to Steven Gillette at [sgill3@unh.newhaven.edu](mailto:sgill3@unh.newhaven.edu).

While 2014 showed improvement from the prior year, 2015 showed continued stable increases in housing prices from 2014, and the first half of 2016 also showed continued increases in housing prices, we observe a decline in housing prices for the second half of 2016, all of which is depicted in Figure 3. This, along with other indicators contained in the Report, confirms that the Connecticut economy ended 2016 and began 2017 in a weak state.

**About the ALL-Transactions Housing Price Index New Haven – Milford, CT (MSA):** Data are from the Federal Reserve Bank of St. Louis FRED data (<https://research.stlouisfed.org/fred2/>) for the New Haven-Milford region of Connecticut for 2014, 2015, and 2016.

Figure 3

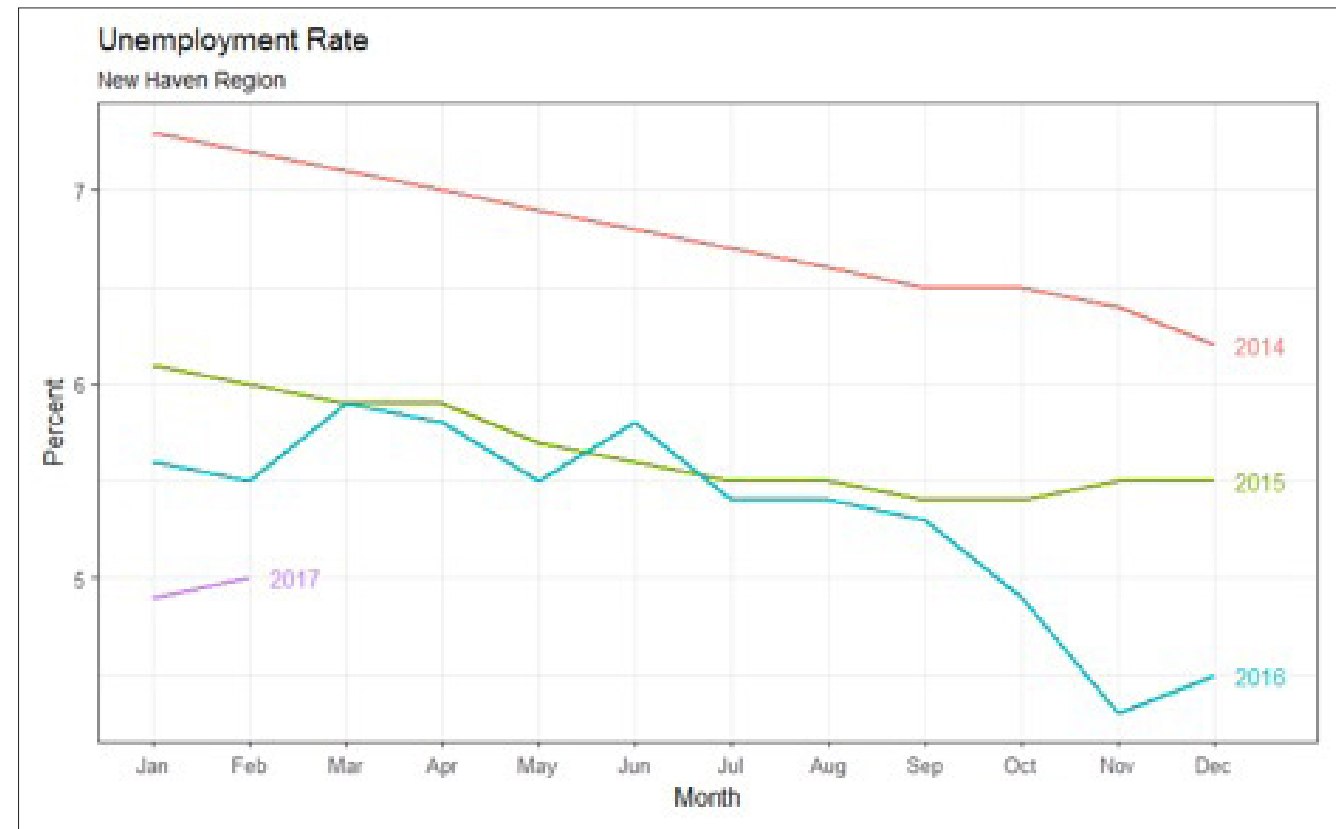


# Unemployment

Comments should be directed to Sean P. Kingsepp at [sking3@unh.newhaven.edu](mailto:sking3@unh.newhaven.edu).

As with the nation and New England, in general, unemployment decreased in the New Haven Region. During the latter part of 2016, Connecticut experienced marked improvement. Of particular note, the rate of improvement appears to be similar to the experience of the previous two years, 2014 and 2015. Welcome news indeed; however, Connecticut still lags behind the other New England states, and the New Haven Region ended 2016 and started 2017 with an increase in unemployment as depicted in Figure 4.

Figure 4



# Gross Domestic Product By Industry And Consumer Price Index

Comments should be directed to David Ortone at [dorto1@unh.newhaven.edu](mailto:dorto1@unh.newhaven.edu); and Nathan J. Pitruzzello at [npitr1@unh.newhaven.edu](mailto:npitr1@unh.newhaven.edu).

As shown in Figure 5, the pattern of improvement in energy prices for our region is similar to the performance of unemployment discussed above. Prices declined at the same rate as they had for the past two years – 2015 and 2016 – and then improved markedly in the second half of 2016. For the same span of months in 2016, 2017 saw an increase in energy prices from the prior year.

Figure 5

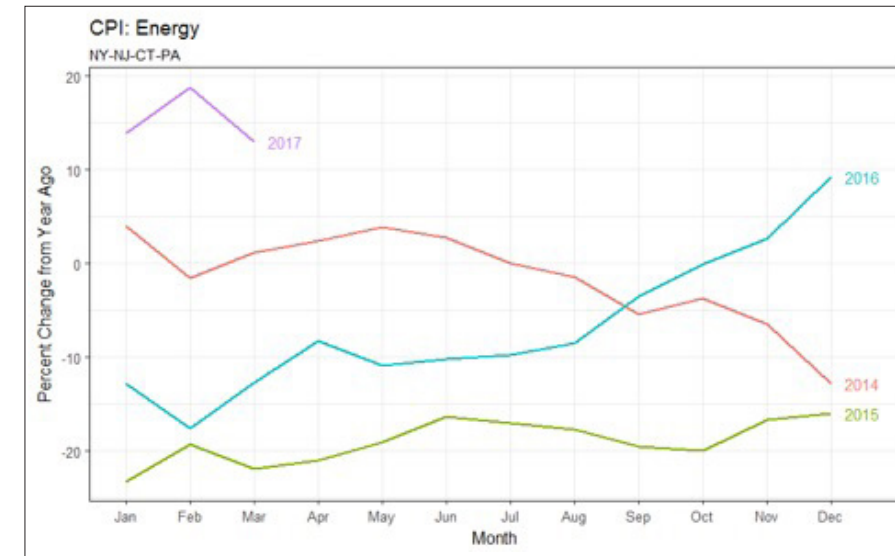
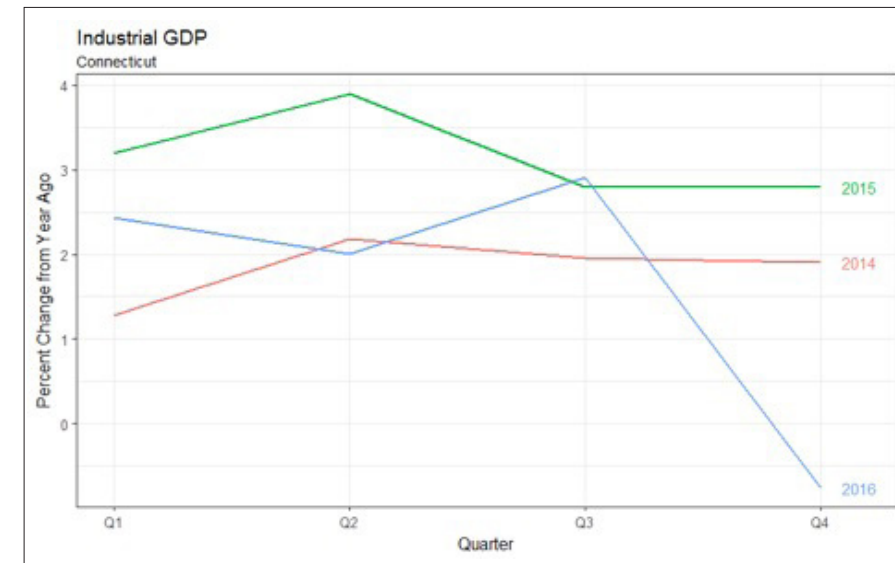


Figure 6



As illustrated in Figure 6, 2016 Gross Domestic Product for Connecticut by Industry indicates a weakness in the economy from the prior year. We see a marked decline relative to the first half of the year. In fact, 2016, unlike 2015, ended with a significant decline, which raises significant concerns for 2017.

**About the Consumer Price Index:** Energy: Data are from the Federal Reserve Bank of St. Louis FRED data (<https://research.stlouisfed.org/fred2>) for the State of Connecticut for 2014, 2015, 2016, 2017 (through March).

**About the Gross Domestic Product Growth by Industry:** Data are from the Federal Reserve Bank of St. Louis FRED data (<https://research.stlouisfed.org/fred2>) for the State of Connecticut for 2014, 2015, and 2016.

# The Ge-Xit: Its Impact<sup>2</sup>

Comments should be directed to A.E. Rodriguez, Ph.D., at [arodriguez@newhaven.edu](mailto:arodriguez@newhaven.edu); and B.A. Marks, J.D., Ph.D., at [bmmarks@newhaven.edu](mailto:bmmarks@newhaven.edu).

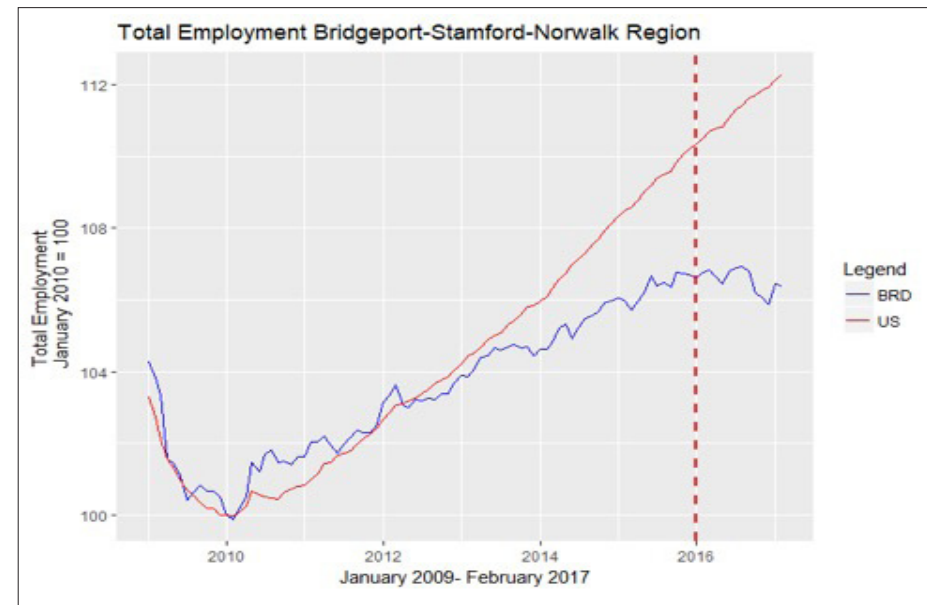
On January 14, 2016, General Electric Corporation (“GE”) announced that it was moving its corporate headquarters from Fairfield, Connecticut, to Boston, Massachusetts. It is important to know the full impact of GE’s departure because its true costs can serve to inform any future consideration of policies proposed by legislative leaders that are likely to influence individual and business decisions.

GE’s departure was a “punch in the gut,” as the Hartford Courant characterized it (Singer, GE Moves Headquarters to Boston, 2016). The GE-Xit provided a powerful rallying cry for business groups and conservatives seeking to address the years of weak job growth in Connecticut and a sluggish economic expansion (Phaneuf, 2017). It has been suggested that the GE-Xit is emblematic of a state with tax policy adverse to economic development and growth and competitiveness vis-à-vis other states in the region. Connecticut’s corporate tax rate of 9.0% is marginally higher than Massachusetts’ tax rate of 8.0%. It has been suggested that the greatest advantage, however, is Massachusetts’ individual income tax rate in comparison to Connecticut’s individual income tax rate. Arguably, the hardest hit by GE’s departure is the Town of Fairfield, which expects a loss of tax revenue, particularly property tax revenue, of close to \$1.6 million, a decline in charitable spending, and declining home real estate values.

Others dismissed the GE-Xit as relatively inconsequential. It has been suggested that the relocation only involves the departure of 200 jobs, a triviality when compared to a workforce of 4,000 (Singer, Despite Departure, GE Leaving 600 Jobs in Norwalk, 2016). Indeed, the “200 jobs lost” refrain seems to have cemented itself in the area’s collective conscience, ignoring other potential implications. The true effects are still to be fully understood (Zimmerman, 2017). We examine the performance of Total Employment as reported by the Bureau of Labor Statistics in the region, seasonally adjusted and rebased in January 2010 to 100, where GE was once headquartered – the Bridgeport-Stamford-Norwalk metropolitan statistical area, which is the 58th largest in the nation. We find that the impact on total employment was considerably higher than the oft-repeated “only 200 jobs.” Specifically, we find approximately 71,200 jobs were lost for the region over the period February 2016 – 2017 because of the GE-Xit.

The impact of the GE-Xit can be represented in the following figures. Figure 7 shows Total Employment for the Bridgeport-Stamford-Norwalk (“BRD”) region and for the United States for the period January 2009 through February 2017. The vertical dashed line is set at January 2016, the date of the GE-Xit announcement. Of particular note, National Total Employment dramatically outperformed BRD over the last three or four years. And, Connecticut appears to have taken a turn for the worse prior to GE’s January 2016 announcement.

Figure 7



<sup>2</sup> This summary is derived from A.E. Rodriguez and B.A. Marks, “The GE Exit and the Decline in Employment” (May, 2017), which may be found on <http://www.universityofnewhaverneconlab.org/nhepl-economic-studies>.

Figure 8

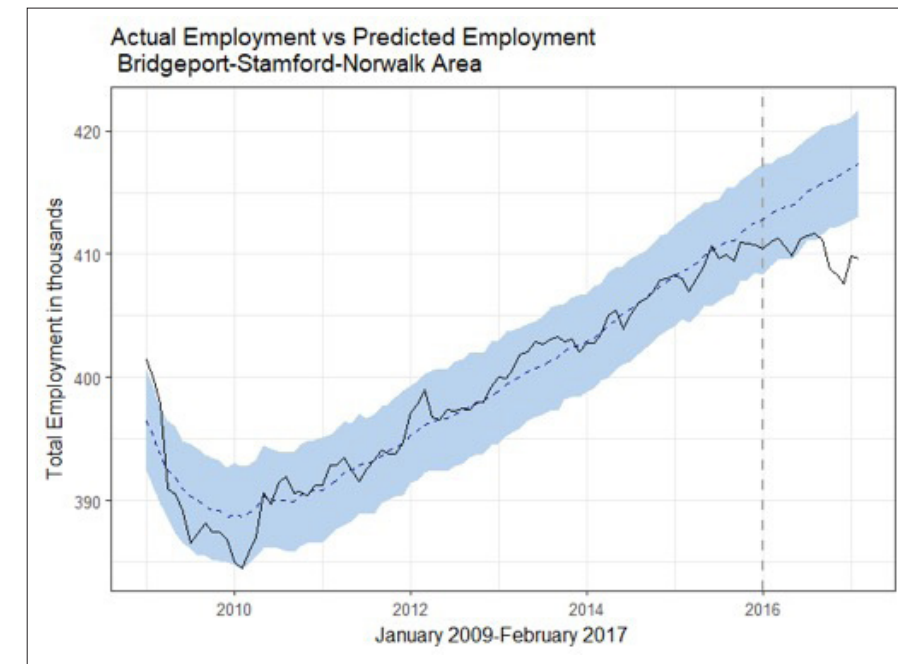


Figure 8 shows two time-series: The first time-series, represented by the darker, thicker line, is the original BRD employment data; and the second time-series, represented by the dashed line, is the predicted estimate of a statistical model fit on historical data for the BRD region. The vertical dashed line demarcates the January 2016 event date, the GE departure announcement. In the period after the announcement, the line representing predicted Total Employment and the line representing actual Total Employment diverge. The monthly difference between the two series represents the jobs that would have existed but for the GE-Xit. The cumulated sum of this difference represents the total impact of the GE departure.

Figure 9

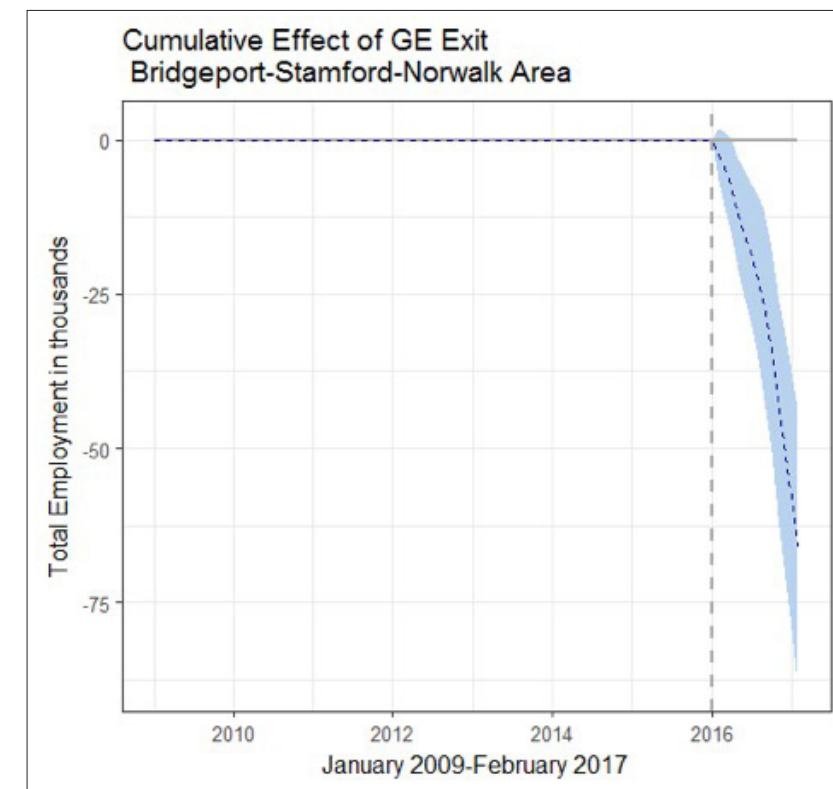
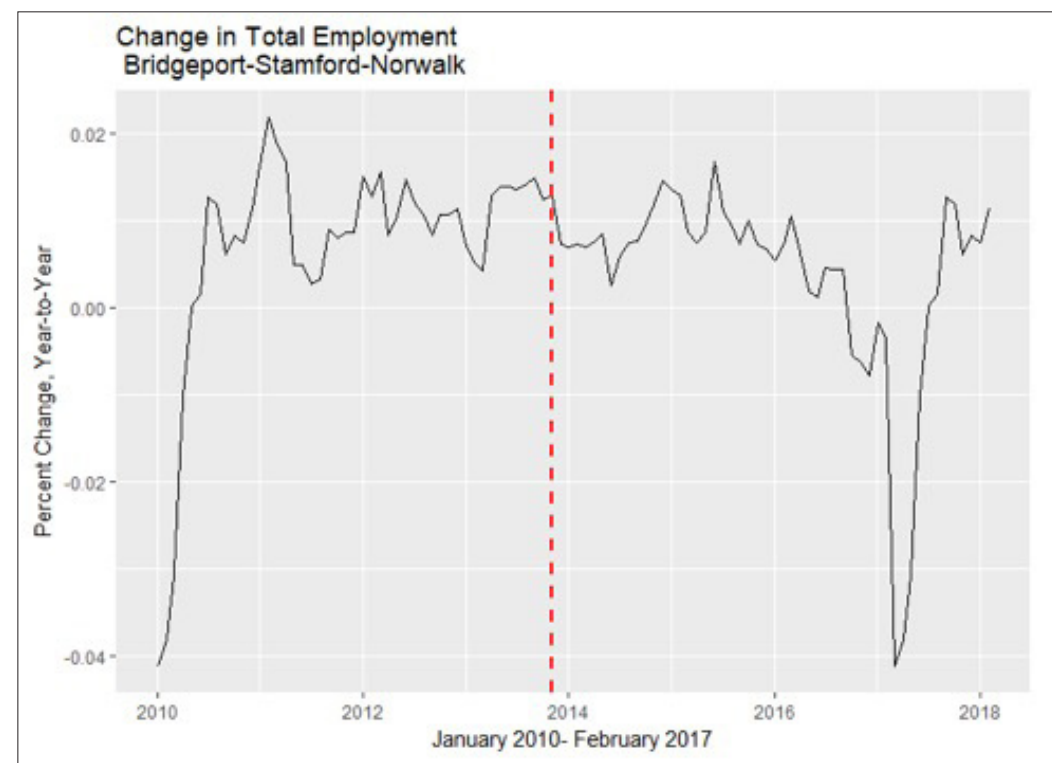


Figure 9 is a visual depiction of the cumulated jobs lost in the region following the announcement of GE’s departure in January 2016. This amounts to a cumulative loss of over 70,000 jobs.

The GE-Xit compounded matters for Connecticut. We confirmed statistically what can be inferred visually: there was a change-point for the worse in Connecticut Total Employment in November, 2013. Popular interpretations vary; it has been suggested that this “turning point” is the result of a greatly heightened regulatory burden that followed the Great Recession; others harken back to the imposition of the state income tax in the 1990s with Governor Malloy policies and budget issues in 2013 serving as the breaking point. Despite generating more revenue than the state had before through income taxes, the state failed to control expenses, resulting in an increase in deficits and state debt. So, while one could expect jobs to come and go, the failure to provide an environment attractive to investors and entrepreneurs to foster job growth along with economic development resulted in poor state economic performance. The Venture Capital Economic Report Connecticut Summary contained in this Report confirms the dismal venture investment in the state since the Great Recession.

Figure 10 shows the historical Total Employment series expressed as a percent change from year-to-year. It includes a vertical dashed line identifying the statistically determined change point of November 2013. Simply, Connecticut’s anemic performance is clearly observable. Notably, this change point date is well before the GE announcement. Perhaps the GE-Xit can be characterized as (i) GE acting in its own self-interest and that of its shareholders, and not the community and state that served as its home for forty (40) years; and (ii) representing the inevitable decline in the state’s fortunes.

**Figure 10**

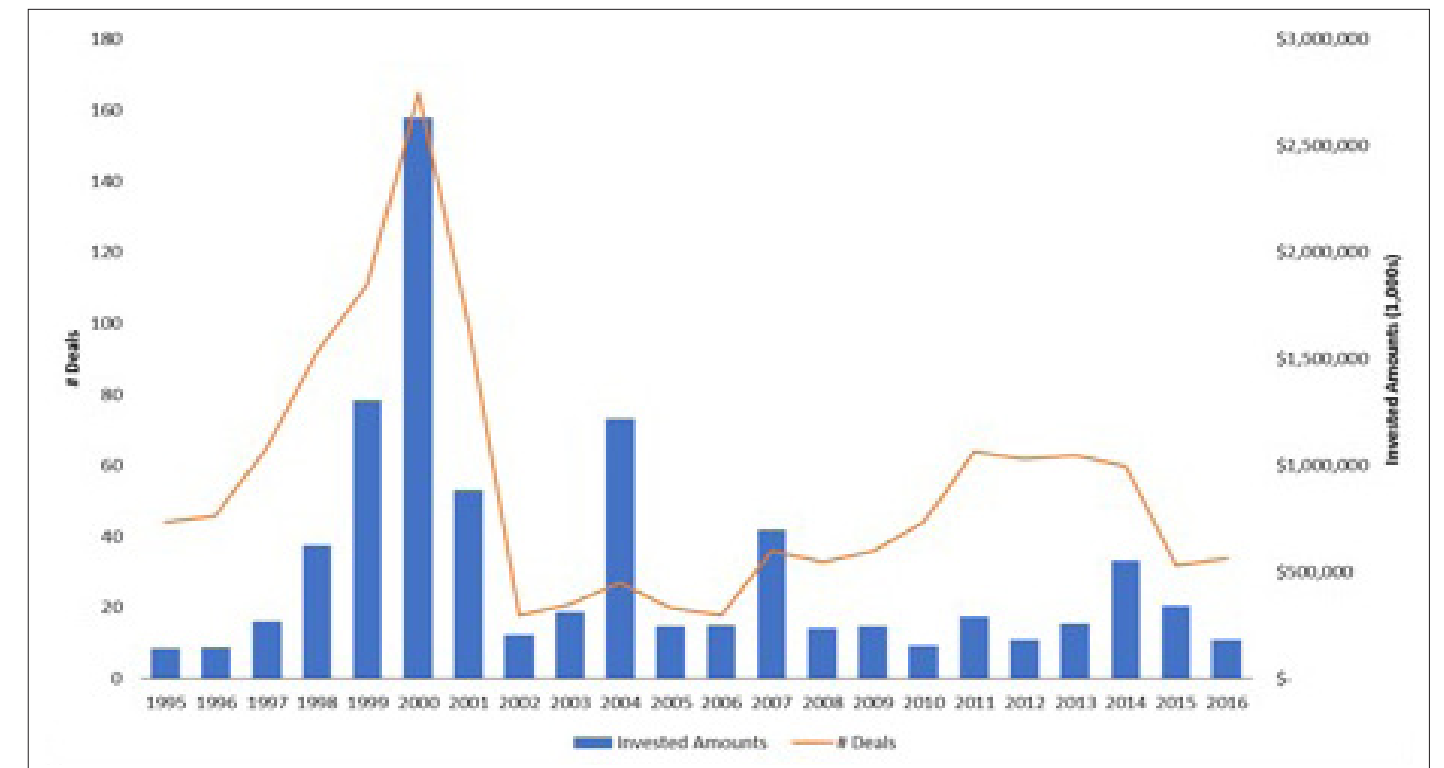


GE’s departure appears to have adversely affected and compounded Connecticut’s already difficult economic climate by resulting in job losses well in excess of the 200 jobs actually relocated to Massachusetts; job losses of over 70,000 is not inconsequential.

Comments should be directed to A.E. Rodriguez, Ph.D., at [arodriguez@newhaven.edu](mailto:arodriguez@newhaven.edu); and B.A. Marks, J.D., Ph.D., at [bmmarks@newhaven.edu](mailto:bmmarks@newhaven.edu).<sup>3</sup>

The foundation for economic development and growth is a system of enforceable property rights and an environment conducive to entrepreneurship. The lifeblood for innovation, intrapreneurship, and entrepreneurship is investment and, of particular note, venture capital investment. According to the National Venture Capital Association, venture capitalists invest significant amount of funds in start-ups through later stage entrepreneurial business ventures. For context, three major public companies by capitalization, Apple, Google, and Microsoft, received most of their external funding in the form of venture capital prior to going public.<sup>4</sup> The top five (5) states in terms of average venture capital investment are California, Massachusetts, New York, Washington, and Texas. Connecticut, historically a hotbed for innovation and economic development, not only fails to rank in the top five (5), but has failed to recover in invested dollar amounts and number of deals from the 2008 Great Recession, as illustrated in Figure 11.

**Figure 11 - Aggregate Number of Deals and Aggregate Invested Amounts: Connecticut**



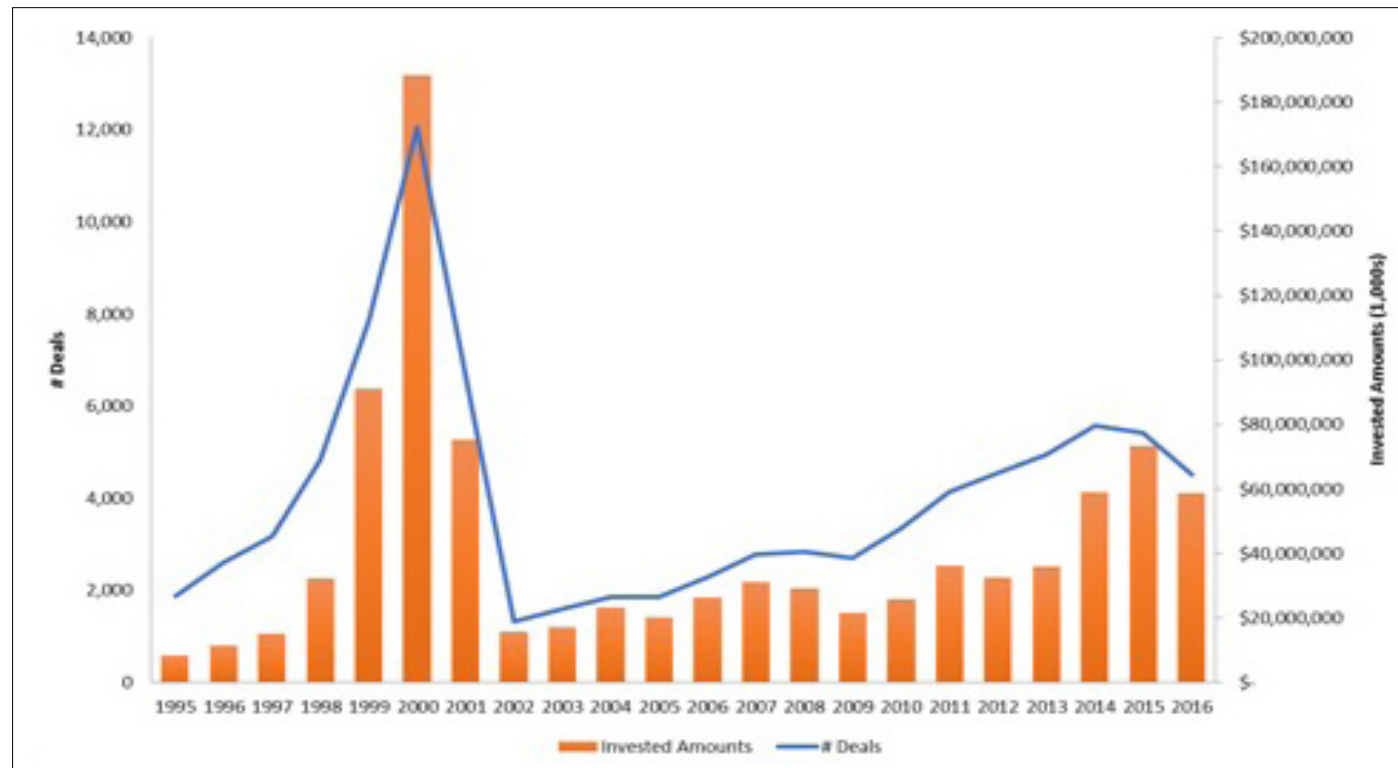
The above pattern appears to correlate with the nation, on an aggregate basis, as illustrated in Figure 12. Connecticut, like the nation, faced the dot-com bubble as illustrated by the precipitous drop after 2000 and 2001, and a decline in deals and invested dollars immediately after the 2008 Great Recession. In the year 2014, we observe what appears to be, in amounts invested, a return to the pre-2008 Great Recession amounts invested, with the number of deals steadily increasing. With that said, 2015 and 2016 has seen a falling off for Connecticut and the nation for 2016. The patterns observed vis-à-vis the nation are also apparent when comparing Connecticut to Massachusetts, New York, and Silicon Valley, California. Connecticut lags in both number of deals and amounts invested.

<sup>3</sup> This summary is derived from the forthcoming Venture Capital Economic Report (“Report”), which analyzes certain regions, including Connecticut, from the Entrepreneurship and Innovation Program and the Department of Economics. The Report’s empirical construction and analysis is authored by A.E. Rodriguez, B.A. Marks, and undergraduate and graduate students studying Venture Capital Economics and Governance, with Stephanie Mazzeo (’17) serving as the student editor, all of whom are identified in that Report.

<sup>4</sup> Will Gornall, University of British Columbia and Illya Strebulaev, Stanford University, “The Economic Impact of Venture Capital: Evidence of Public Companies” (2015).

# Conclusion: A Connecticut Assessment

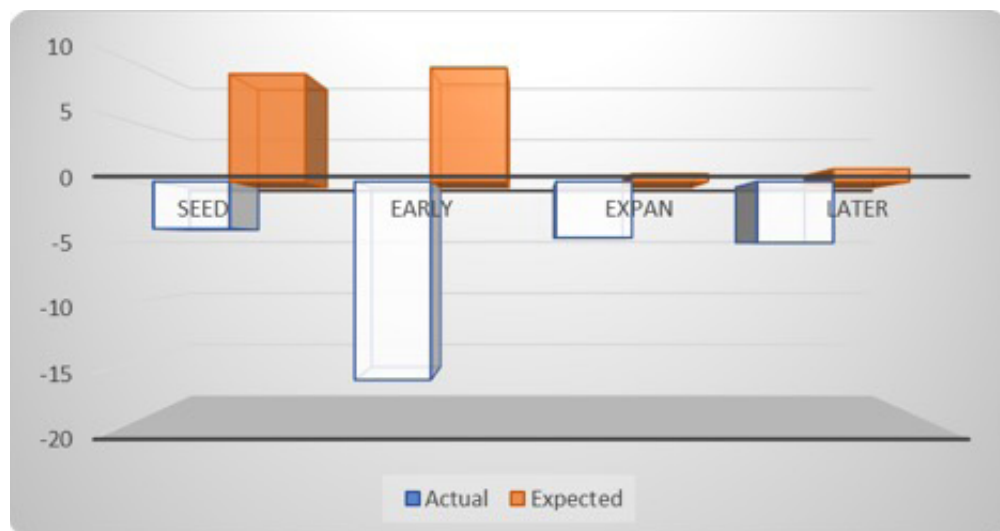
**Figure 12 - Aggregate Number of Deals and Aggregate Invested Amounts: National**



It should be noted that neither the nation nor Connecticut has achieved the pre-dot-com bubble numbers in deals or amounts invested. When examining various stages of investment (Seed, Early, Expansion, Later) in the context of the number of deals and amounts invested vis-à-vis the nation, a Shift-Share analysis for the period 2009–2016 shows that Connecticut fails to perform in accordance with expectations.

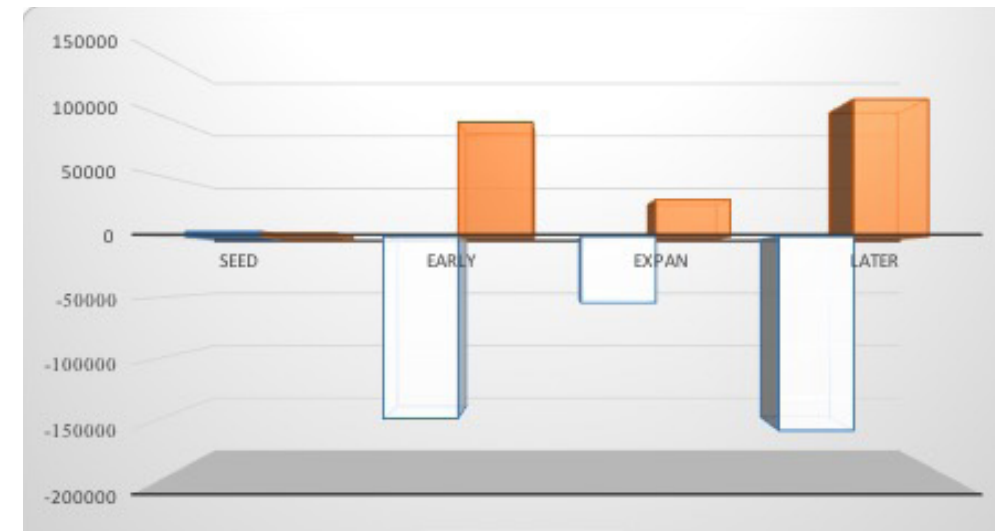
This anemic performance since the 2008 Great Recession is apparent in all investment stages for the number of deals with the Early Stage Investment taking the biggest hit, as shown in Figure 13.

**Figure 13 - Shift-Share Analysis: Number of Deals Connecticut vis-à-vis the Nation (2009–2016)**



While the number of deals lags the nation, Seed Stage amounts invested appear to match national performance, as depicted in Figure 14; potentially a foundation on which to build.

**Figure 14 - Shift-Share Analysis: Invested Amounts Connecticut vis-à-vis the Nation (2009–2016)**



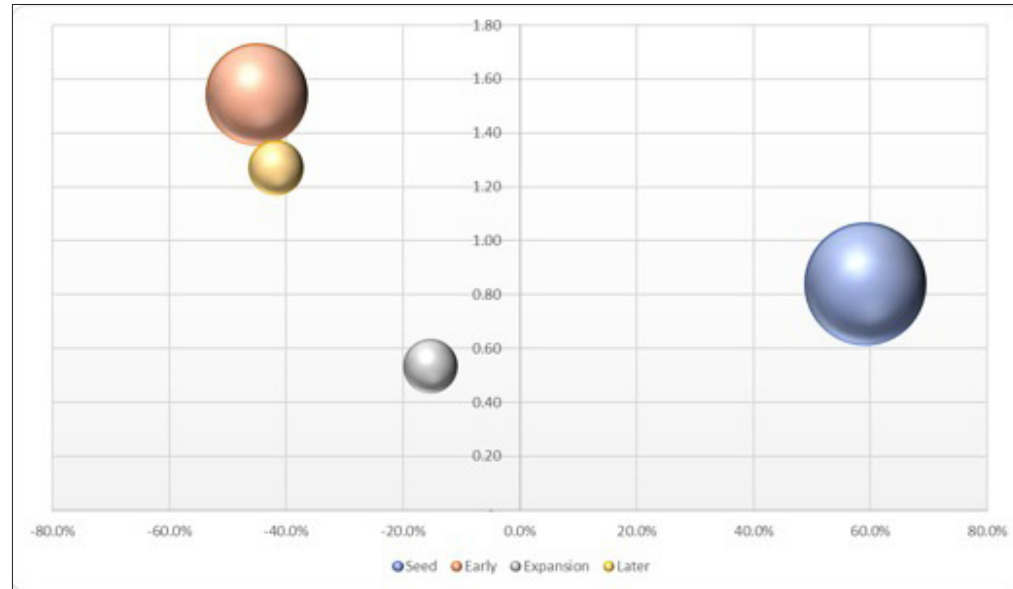
When examining the same period using Location Quotient Analysis techniques, we observe, as illustrated below, for the period 2009–2016, that Connecticut's strength for purposes of venture capital investment is at the Seed Stage for both number of deals and amounts invested. The bubble charts below convey three key metrics for each investment stage: (i) the measure of strength of investment in Connecticut relative to the nation; (ii) the rate of change, the growth rate of the particular investment stage; and (iii) the number of deals or the amounts invested, as the case may be; the relative size of the bubble. The focus period, the end points, were selected based upon the recent recession. For simplicity, the construct illustrated in Figure 15 assists in evaluating investment stage performance.

**Figure 15 - Location Quotient Interpretation Framework**





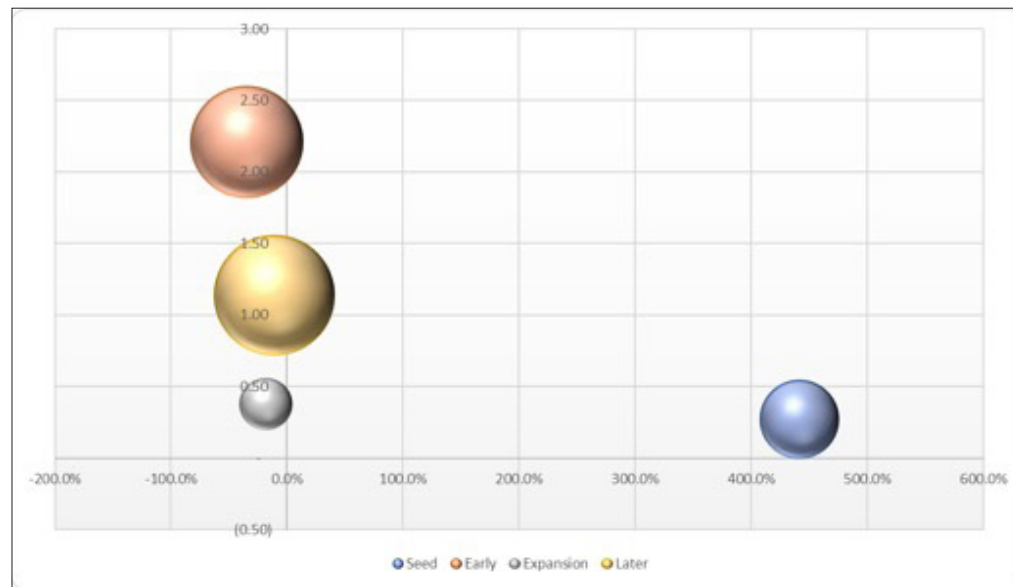
**Figure 16 - Location Quotient Analysis: Number of Deals**  
Connecticut vis-à-vis the Nation (2009–2016)



In light of the previous construct, Figure 16 illustrates that Seed Stage venture capital investment for the number of deals is weak, but emerging. As for the other stages of investment, we see a disquieting trend in the number of deals and amounts invested vis-à-vis the broader national average: Early Stage and Later Stage are considered strong but declining, with the Expansion Stage weak and also declining.

The same pattern is apparent in amounts invested as shown in Figure 17 with the Seed Stage weak, but emerging. Arguably, an emerging Seed Stage of amounts invested activity could bode well for the future, provided the Connecticut environment supports and fosters investment activity and enterprises at stages subsequent to the Seed Stage.

**Figure 17 - Location Quotient Analysis: Invested Amounts**  
Connecticut vis-à-vis the Nation (2009–2016)



In sum, the trends associated with the general activity of traditional venture capitalists in the State of Connecticut need to be reversed, as this will be yet another nail in the coffin for economic development, growth, and the entrepreneurial spirit for the State of Connecticut. To begin anew, we must build a solid foundation; in the absence of such a foundation, we could lose not only the next generation of entrepreneurs, but subsequent entrepreneurs as well. An examination of population trends could provide additional insights.

**About the Venture Capital Data:** Data are from PWC/CBInsights MoneyTree data explorer (<http://www.pwc.com/moneytree>); dollar amounts adjusted by the U.S. Consumer Price Index – ALL Urban Consumers.

The University of New Haven Economics Collective is an online space for faculty, students, and business industry leaders to connect and network by sharing content, whether it be report analysis, political commentary, or anything else on their minds. Members can comment on each other's posts, creating a meaningful and enriching dialogue that extends beyond the traditional classroom educational experience. On the Collective, all members are economists, whether the poster is a first-year student or Nobel Prize winner. The lines of stature are blurred through the medium of the internet, lending to a more thoughtful and genuine discussion. These moments of connectivity construct social capital, which helps build up the Economics Department as more than an office of the University of New Haven, but rather a community that cares for one another beyond the academic setting. The Collective has already been used as a method of surveying, and will be in the future to further employ the method of using the wisdom of crowds. The following selections are just a glimpse of content shared on the Collective. Economics minor Benjamin Atwater ('18) serves as the Executive Director of the Collective; please refer all questions to [batwa1@unh.newhaven.edu](mailto:batwa1@unh.newhaven.edu).

**Euro: Good or Bad?** "The Euro was made to give higher growth to the economy due to greater efficiency, better equality between rich and poor countries in the EU, with more free capital markets. Unfortunately, many economists have seen the opposite of the Euro effect, and we can see that the Euro is not increasing the way it should. The currency has failed to achieve its main two principal goals of prosperity and political integration. Instead of peace between the countries, a lot of countries have anger and want to leave the Euro and EU, e.g., Brexit, Grexit and Frexit. The French election is probably the biggest thread to the Euro, the EU, and its investors right now." – VK

<http://unheconomicscollective.ning.com/blog/europe-and-euro>

**Oscars 2017-Machine vs. Expert Contest:** "And here are the predictions of the Machine. I ran two models, and both gave up the same result. I present the results graphically...the first model, a logistic regression, predicts Moonlight in a three-way horse race with La La Land and Hacksaw Ridge. Admittedly, the differences among and between the three are not statistically significant. But I will stick with Moonlight...the second result come from a Naïve Bayes classifier; and it predicts Moonlight as well, nipped at the heels by La La Land... so there you have it. The Machine predicts Moonlight; the Expert unanimously picks La La Land." – AR

<http://unheconomicscollective.ning.com/blog/best-picture-prediction-experts-vs-the-machine>

**After Brexit, Next?:** "The Netherlands hold its parliamentary elections on March 16. Currently, the populist Freedom Party (PVV) headed by Geert Wilders leads in the polls. As a quick reminder, the Netherlands is a constitutional monarchy governed by a parliamentary democracy. The parliament holds 150 seats. It is run by a coalition between the conservative-liberal People's Party for Freedom and Democracy (VVD) headed by Mark Rutte (Prime Minister since 2010) and the Labour Party (PvdA). Both parties are expected to lose seats in the next election." – CC

<http://unheconomicscollective.ning.com/blog/after-brexit-next>

**Logan: Sci-fi Meets Western Meets Superhero:** "One of the best parts of Logan is Mangold subtly putting in elements that suggest a very realistic sci-fi future that is not too far-fetched. Set in 2029, the landscape is not too unlike the real world, yet has components like automated trucking containers on wheels with no drivers, as well as commentary on the corporate farming industry. An entire subplot is a family farmer defending his corn farm from the muscle of a large corn syrup producer that neighbors and shares the water supply, leading to unethical cut offs that are very reminiscent of the Monsanto phenomena to monopolize the market. Even drones are heavily utilized for surveillance, as well as Google Glass like glasses. These subtle elements represent the best of sci-fi: saying something meaningful about modern society while adding in the fantastic sense, yet Logan is not too over the top, making it more believable, in an analogous way to the subtle sci-fi elements of Children of Men." – BA

<http://unheconomicscollective.ning.com/blog/logan-superhero-meets-western-meets-sci-fi>

# About the New Haven Economic Performance Laboratory

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The **Southern Connecticut Economic Activity Report** ([www.nhepl.org](http://www.nhepl.org)) is a publication of the Department of Economics, College of Business, University of New Haven, 300 Boston Post Road, West Haven, Connecticut 06516.

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The Research Staff are upperclass-men and -women in the Department of Economics. Although each student works under the auspices of the Supervising Faculty and Research Directors, each student is individually responsible for interpreting and analyzing the data. The Laboratory is a teaching space, and this Report reflects a product of that space. In addition, staff work closely with the University of New Haven Economic Collective (<http://unheconomiccollective.ning.com>), which brings together students, faculty, alumni, and members of the broader community to foster a meaningful and relevant exchange of ideas. A fundamental focus of the Laboratory is to formulate, construct, and examine non-traditional socioeconomic metrics applicable to the Southern Region of Connecticut by employing traditional empirical methods as well as data and text mining methods.

The New Haven Economic Performance Laboratory is affiliated with the University of New Haven Department of Economics and the Entrepreneurship and Innovation Program. Any opinions contained herein do not reflect the opinion of the University of New Haven, its College of Business, or the Entrepreneurship and Innovation Program. The funding of the Laboratory and the printing of the Report are funded by the College of Business, the College of Business Advisory Board, and other sponsors of the Laboratory. Should you be interested in supporting this student initiative in collaboration with faculty, please contact Ms. Mary F. Murphy, Director of Development, University of New Haven, at [mfmurphy@newhaven.edu](mailto:mfmurphy@newhaven.edu) or 203.932.7174.



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