THE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT

Connecticut
still revolutionary

First Five Plus Program

Return on Investment Analysis

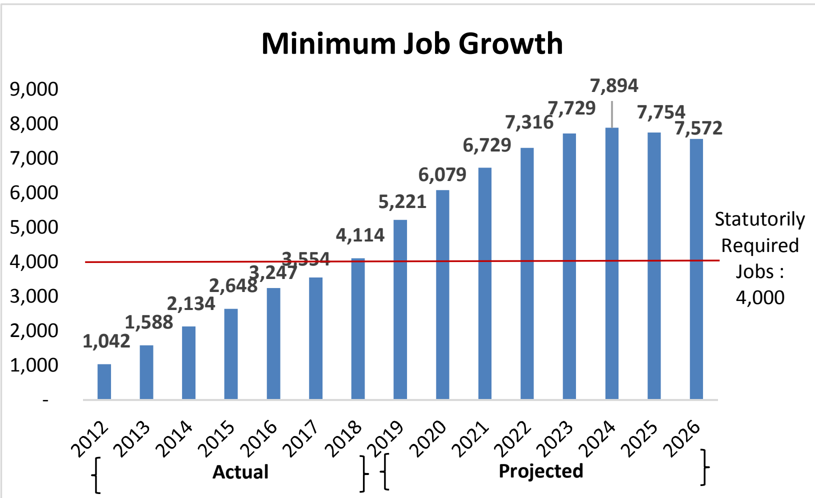
Department of Economic and Community Development
January 2019

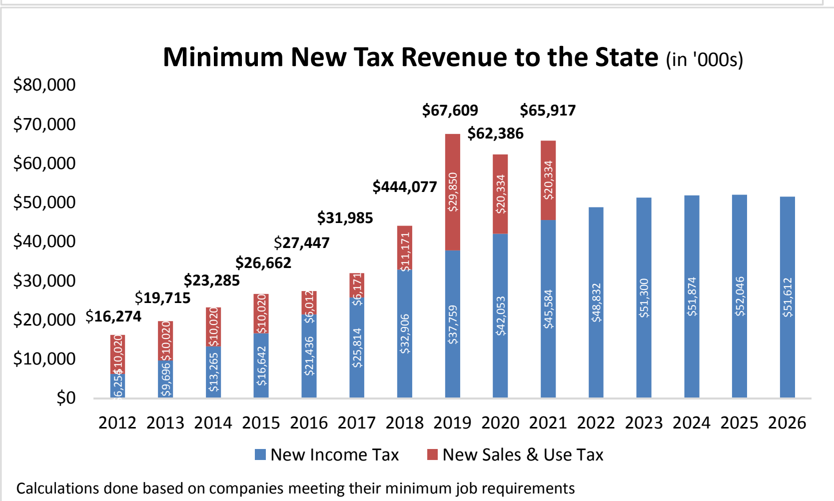
By providing investment-oriented incentives to large companies to grow in Connecticut, we have not only seen substantial growth in good paying jobs, but the state expects to more than fully recoup its initial investments.

First Five Plus Program

January 2019

The First Five Plus companies continue to make significant contributions to the state's economy. To date, the 19 First Five Plus companies have created 4,114 jobs and retained more than 30,000 jobs.





THE FAST FACTS

Number of Companies: 19

Remaining Slots: 1

Jobs Created: 4,114

Jobs Over Requirement: 114

Jobs Retained: 30,164

Private dollars: $2.87B

Leverage factor: 5.99x

Direct State Funding: $376.6M

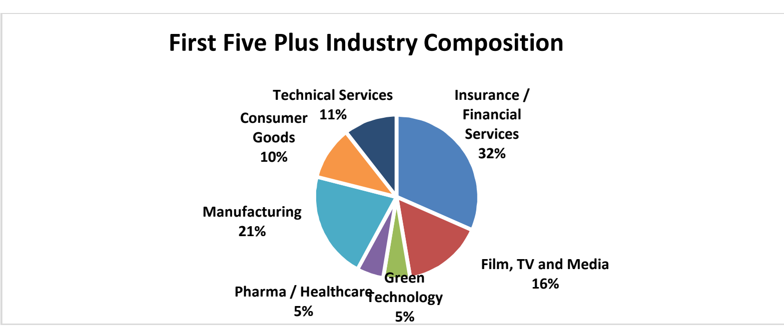
20-Year NPV Projections (minimum jobs scenario):

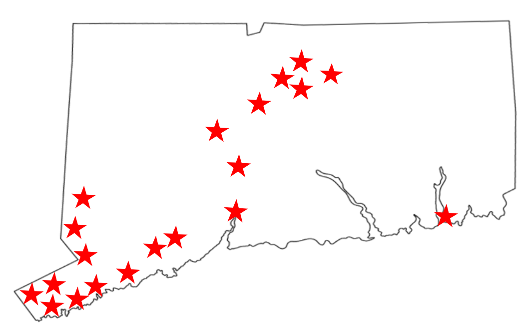
New Income Tax Revenue: $492M

New Sales Tax Revenue: $108M

Total Present Value of Return to the State: $269.9M*

Under the First Five Plus Program, companies are bringing significant additional tax revenue to the state, through both income and sales and use taxes. We expect over $383M in combined revenue between 2012 and 2021. (Note: the sales and use tax is largely generated through construction work, which is usually completed within the first few years of the projects.)





*Net present value (NPV) is a financial calculation often used to evaluate investments over an extended period of time. Any NPV greater than zero is consider a good investment. To determine the state's return on the First Five Plus investments, the calculation 1.) takes the year by year stream of payments to the state from taxes (shown in the Minimum New Tax Revenue graph), adds in annual principal and interest payments from the companies, and subtracts the payments the state makes for the capital used to provide incentives; and 2.) discounts the resulting net stream of cash flow at the rate of the cost of capital to the state (3.48%), to reflect the risk and timing of receiving the funds in the future. Because the NPV of the First Five Plus program is over $269M based on this calculation, the state is making a good use of capital.

Governor Malloy's First Five jobs initiative (now referred to as the First Five Plus) provides assistance for large-scale business projects as a means of encouraging business expansion, and job creation in Connecticut. Per state statute, DECD has flexibility in the construct of any financial assistant agreements, using loans, forgivable loans, tax credits and other forms of assistance. In return, companies must promise to either create two hundred new jobs within two years or invest $25 million dollars and create 200 jobs within five years.

With five years of the program now complete, we believe the First Five Plus program is clearly meeting—if not exceeding—expectations, especially since even with four companies yet to report jobs, the program has already exceeded the minimum job level. In this report, we look specifically at the financial returns, which are already strong and projected to get stronger.

<u>New Companies added to the First Five Plus Program in 2018</u>

- ASML
- Infosys
- Electric Boat
- Ideanomics

<u>Summary of First Five Plus Impacts</u>

The First Five Plus program generates significant economic benefit to the state. Not only does the initiative help to facilitate job creation and expansion, it stimulates enormous direct and indirect growth for the Connecticut economy.

Financial Impacts – as outlined in the analysis that follows

- If the companies add the minimum jobs required, they will generate a Net Present Value (NPV) of approximately $491.8 million of new state income tax revenue (in current dollars) over the course of 20 years, in addition to many millions of dollars of sales and use tax.
- Should the companies reach their maximum job creation goals, over 12,000 new jobs and a projected NPV of $692.3 million in state income tax revenue (in current dollars) will be generated in the state over the 20 years.

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- The State return on investment over twenty years has an NPV (in current dollars) of $269.9 million, clear proof that the value of the investment dramatically exceeds the state's costs—even if the companies add only the minimum jobs required.
- Other direct impacts related to jobs, capital investment and leveraging are provided on pages 3 and 14.

Social Impacts - community-related returns not captured by this analysis

- Cultural and community organizations are the recipients of corporate philanthropy by both the companies themselves, as well as their employees.
- Companies are working closely with our schools and universities, helping to create the next generation of employees.
- Our cities benefit from the presence of more people working, shopping and dining in our downtowns.

Return on Investment

First Five Plus Program Overview **December 2018**	
Total Businesses Participating	19
State Direct Assistance Source: Manufacturing Assistance Act Funds	$376,600,000
Tax Credits Source: Urban and Industrial Sites Reinvestment (URA) Tax Credits	$120,000,000
Total Jobs Retained	30,164
Minimum New Jobs Required	4,000
Maximum New Jobs under Contract	13,015
Total Jobs (Max New and Retained)	43,179
State Direct Assistance per Job	$8,722
Reported Private Investment	$2,867,884,595
Leverage Factor (reported private dollars invested divided by state assistance to be earned)	5.99x

<u>New Jobs Created: Direct Returns to the State</u>

We have calculated the return on state investment in two ways. The first method uses a direct investment model to evaluate the expected repayments to the state in the form of interest on any loan, state income tax from new employment, state sales tax on new investments and repayment of principal amounts. It is based on new investments made and jobs created, to best capture the incremental impact of the new activity in the economy. To be conservative, this calculation has been done over a 20-year period with a 5% decline in jobs after year 10.

The below table provides an overview of the assumptions used in the model, including the direct inputs (e.g., number of jobs created), incentives, and a summary of the fiscal and economic impacts.

PROJECT DESCRIPTION:		
This study evaluates the impact of the First Five Plus program based on Letters of Intent and contracts in place as of December 2018. The model only evaluates the incremental new jobs and capital spending promised by the companies and does not include their existing workforce. The model reflects the new jobs already created (as part of their commitment to the state), jobs still to be created, company investments made or promised to be made, and state assistance as inputs into the model. During the first seven years, we ramp up job creation to the level of jobs created as of May 31, 2018, and ramp up to the level of "maximum jobs to be created" over years eight through thirteen, then decrease jobs by 5% yearly once the 10-year contract is complete (years fourteen through twenty). Tax credits are modeled per state statute; loans are modeled as 10-year, 2% interest structures, with payments deferred and forgiveness modeled per the contracts. Any repayments made thus far have been included. The modeling also reflects the cost of the state’s capital, as the funds are drawn down in the first 5-7 years. The state incurs debt service on the bond issue to fund the loan at a rate of 3.48%. Scenario A is the “maximum jobs” case, scenario B is the “minimum/current jobs” case.		
Direct Inputs:	**Amount**	
Job creation – years 1 to 7 (ramped up to "jobs created so far")	4,114	
Job creation - years 8 to 13 (ramping up to “jobs to be created” under each scenario)	A: 12,420	B: 7,894
New jobs by year 20 (5% decrease annually from years 14-20)	A: 10,206	B: 6,171
Total Investments	$2,867.9 MM	
Incentives:		
State assistance to fund grants and loans (modeled as 2% loans for 10 years, payments deferred/forgiven)	$376.6 MM	
Tax credits	$126 MM	
Repayments of principal and interest made to state to date	$32.6 MM	

Estimated Direct Impact (Maximum Jobs Created)

The following chart summarizes the cash flows expected, assuming all companies hire the maximum jobs under their contract. As the chart below shows, the cost of state funds and all earned tax credits are offset by increased flows from income and sales tax payments over a ten-year period. The net cash flow for the state is positive, with a net present value of $138.9 million over the course of ten years. We believe that this evaluation best matches what we expect the companies to deliver, based on the significant results that they have already produced.

First Five Plus Program: Estimated Direct Impact

Project A: 20-Year Analysis, Maximum Jobs Created

Only years 1-10 shown below | All figures in $'(000s)

Year:	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
COSTS TO CT:											
1. State Investment (loans, grants)	(376,600)										
2. Cost of Funds (cost to bond, principal & interest at 3.48%)		(6,650.1)	(7,377.8)	(10,522.1)	(12,666.5)	(15,893.2)	(18,078.4)	(26,295.8)	(26,682.1)	(26,857.7)	(26,857.7)
3. Cost of Tax Credits (URAs & sales tax exemptions – fully utilized as contracted)	0.0	0.0	0.0	(1,000.0)	(4,000.0)	(7,000.0)	(14,800.0)	(9,000.0)	(12,000.0)	(17,500.0)	(16,500.0)
ESTIMATED RETURNS/ BENEFITS TO CT:											
1. New Income Taxes from New Hires		6,254.5	9,695.8	13,265.2	16,642.3	21,435.5	25,814.2	32,105.7	40,967.6	53,150.1	62,437.0
2. New Sales Taxes (discounted to account for tax exemptions)		10,019.7	10,019.7	10,019.7	10,019.7	6,011.8	6,170.9	11,170.9	29,850.1	20,333.5	20,333.5
3. Payments of principal and interest (based on loan terms)	0.0	0.0	0.0	0.0	0.0	596.7	32,000.0	1,051.7	1,051.7	1,051.7	1,051.7
NET CASH FLOWS TO STATE		9,624.1	12,337.7	11,762.8	9,995.4	5,150.9	31,106.7	9,032.5	33,187.2	30,177.7	40,464.5

<u>CONCLUSIONS OF ANALYSIS</u>

NET PRESENT VALUE – 10 Years	$153,104				
NET PRESENT VALUE – 20 Years	$464,255				
PAYBACK PERIOD	13 Years				
POSITIVE CASH FLOW	First Year				

<u>Assumptions</u>

1. $376.6.6MM state assistance in the forms of loans and grants. Payments made to date have been included.
2. Tax rates from 5%-6.5% considered for state income tax
3. 3.48% cost of funds

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Estimated Direct Impact (Minimum Jobs Created, Using Current Levels)

In the following chart, we model the scenario in which only the minimum jobs are created, thereby reducing the level of new hires, related income tax, and factoring in the lack of forgiveness on loans, and thus the related repayment of principal and related interest to the state. Several of the First Five Plus companies have already hired beyond the minimum job creation goals, so actual current job numbers are used where the company has already exceeded their contractual minimum.

First Five Plus Program: Estimated Direct Impact

Project B: 20-Year Analysis, Minimum Jobs Created Using Current Levels

Only years 1-10 shown below | All figures in $('000s)

Year:	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
COSTS TO CT:											
1. State Investment (loans, grants)	(376,600)										
2. Cost of Funds (cost to bond, principal & interest at 3.48%)		(6,650.1)	(7,377.8)	(10,522.1)	(12,666.5)	(15,893.2)	(18,078.4)	(26,295.8)	(26,682.1)	(26,857.7)	(26,857.7)
3. Cost of Tax Credits (URAs – discounted by 12.5% to account for minimum jobs)	0.0	0.0	0.0	(1,000.0)	(4,000.0)	(7,000.0)	(14,800.0)	(9,000.0)	(12,000.0)	(17,000.0)	(16,000.0)
ESTIMATED RETURNS/ BENEFITS TO CT:											
1. New Income Taxes from New Hires		6,254.5	9,695.8	13,265.2	16,642.3	21,435.5	25,814.2	32,105.7	37,590.9	41,786.8	45,312.0
2. New Sales Taxes (discounted to account for tax exemptions)		10,019.7	10,019.7	10,019.7	10,019.7	6,011.8	6,170.9	11,170.9	29,850.1	20,333.5	20,333.5
3. Payments of principal and interest (based on loan terms)	0.0	0.0	0.0	0.0	0.0	596.7	32,000.0	1,051.7	1,051.7	1,051.7	1,051.7
NET CASH FLOWS TO STATE		9,624.1	12,337.7	11,762.8	9,995.4	5,150.9	31,106.7	9,032.5	29,810.6	19,314.3	23,839.5

<u>CONCLUSIONS OF ANALYSIS</u>

NET PRESENT VALUE – 10 Years	$130,742
NET PRESENT VALUE – 20 Years	$269,918
PAYBACK PERIOD	19 Years
POSITIVE CASH FLOW	First Year

<u>Assumptions</u>

1. $376.6MM state assistance in the forms of loans and grants. Payments made to date have been included. Unforgiven principal is added back where loan conditions are not met
2. Tax rates from 5%-6.5% considered for state income tax
3. 3.48% cost of funds

New Jobs Created: Total Returns to the State (including indirect investment)

In this analysis, we utilize the REMI model (Regional Economic Modeling, Inc.) to examine the total direct and indirect return on investment the state receives through the creation of new jobs and other investments made by First Five Plus companies. DECD now uses the REMI TaxPI model, which improves on older models by utilizing Connecticut budget data and more recent economic data among other variables. The results are more conservative and are not comparable with earlier analyses employing older models due to changes in the underlying structure built into the model. The model assesses all downstream impacts (the indirect and induced impact, often referred to as a multiplier effect) on the economy, as well as the direct impact of the new jobs and capital improvements resulting from the specific investment. Though REMI is a widely used economic modeling tool, holding all pieces of the economy constant often leads to optimistic outlooks. As such, we discount its importance in analytic evaluation of these investments, and weight the impacts of our Direct Return models greater than the REMI models. The following chart assesses the total returns to Connecticut, assuming all companies hire the maximum jobs under their contract.

Project A: Total Returns to State

(Maximum jobs, including indirect and induced effects)

December 2018

EMPLOYMENT:	**10 Year Avg.**		**20 Year Avg.**
All Sectors	13,422		19,996
Direct	4,070		7,770
Indirect incl. Construction	6,235		12,226
Multiplier Effect (Total (net of construction jobs) Jobs /Direct Jobs)	2.75		2.32
FISCAL IMPACTS:			
State Net New Revenue '(000s):	**10 Year**		**20 Year**
Total (Cumulative)	$472,464		$1,573,889
Net Present Value	$379,024		$1,036,336
Per Year Average	$47,246		$78,694
ECONOMIC IMPACTS:			
Gross State Product '(000s):	**10 Year**		**20 Year**
Total (Cumulative)	$20,478,124		$79,401,929
Net Present Value	$16,158,913		$50,732,499
Per Year Average	$2,047,812		$3,970,096

The Project B: Total Returns to State chart below shows the total economic impacts of the First Five Plus program using the actual number of jobs created over the first five years and then holding job creation constant at this level for years six through ten. For companies that had not yet reached their minimum required level of 200 jobs, we increased their job creation data to the minimum requirement of 200 and held it constant for the required 10-year period.

Even if the First Five Plus companies do no further hiring, there is tremendous benefit to the Connecticut economy from the investments and hiring that have already occurred. As delineated in the First Five Plus contracts, should companies fail to meet all of their job growth and capital spending requirements, they must repay the state's funding (or the portion that is not forgiven due to lack of job growth) with interest. If a First Five Plus company leaves the state during the ten-year term of the contract, it must repay all state investment with an interest-based penalty.

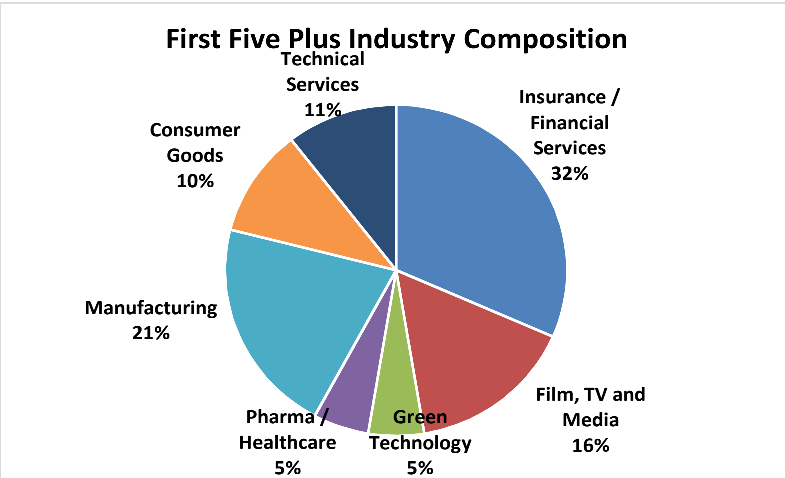
Project B: Total Returns to State

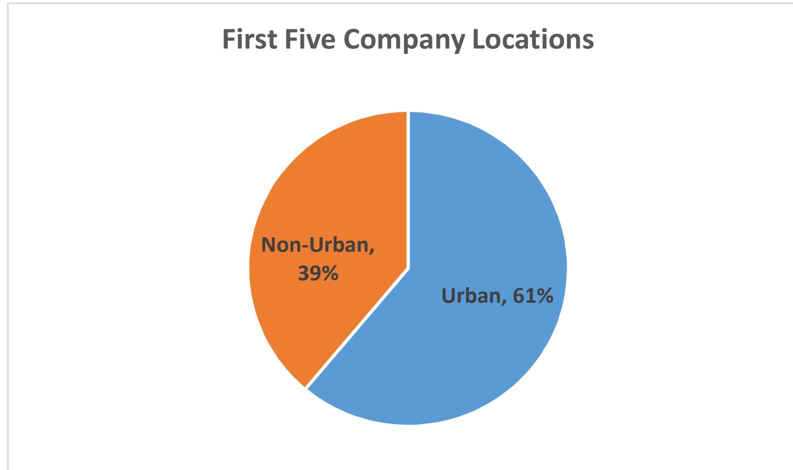
(Minimum jobs using current levels, including indirect and induced effects)

December 2018

EMPLOYMENT:	**10 Year Avg.**		**20 Year Avg.**
All Sectors	12,445		14,320
Direct	3,636		5,435
Indirect incl. Construction	5,873		8,884
Multiplier Effect (Total (net of construction jobs) Jobs /Direct Jobs)	2.83		2.38
FISCAL IMPACTS:			
State Net New Revenue '(000s):	**10 Year**		**20 Year**
Total (Cumulative)	$413,733		$875,930
Net Present Value	$336,539		$621,773
Per Year Average	$41,373		$44,193
ECONOMIC IMPACTS:			
Gross State Product '(000s):	**10 Year**		**20 Year**
Total (Cumulative)	$19,952,561		$53,773,685
Net Present Value	$15,057,129		$35,632,528
Per Year Average	$1,895,256		$2,688,684

First Five Plus Statistics





Our statewide strategic plan identifies six industry clusters that are critical to a comprehensive economic development strategy – the First Five Plus companies represent five of those six industry clusters.

The First Five Plus initiative has supported companies that not only capitalize on the state's strengths (e.g., insurance and financial services, manufacturing), but has also attracted businesses that help to further develop our emerging industries (e.g. digital media).

Connecticut is committed to further developing and revitalizing its downtown and urban areas. Seventy-five percent of the First Five Plus companies have chosen to expand or relocate in a Connecticut city, bringing with it new jobs and generating economic activity.

Stamford attracted many of the First Five Plus companies due to its abundance of young workers, newly developing high-amenity housing, and easy access to New York City.

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Company Name	Company Location	Industry	Date Signed	Company Investment	State Loans	State Grants	Tax Credits	Total Assistance to be Earned*	Leverage Factor	Jobs To Be Retained	Jobs to Be Created		Full-Time Jobs as of 5/31/18**	Net New Jobs Created
											Min	Max		
FIRST FIVE PLUS PARTICIPANTS														
CIGNA	Bloomfield	Insurance	12/21/2011	$ 133,995,080	$ 15,000,000	$ 6,000,000	$ 30,000,000	$ 51,000,000	2.63	3,883	200	800	4,478	595
NBC Sports (Phase I & II)	Stamford	Digital Media	3/28/2012	$ 101,850,000	$ 26,000,000	$ -	$ -	$ 26,000,000	3.92	116	200	716	778	662
ESPN	Bristol	Digital Media	5/16/2014	$ 181,300,000	$ -	$ -	$ 10,000,000	$ 10,000,000	18.13	3,872	200	200	4,074	202
CareCentrix	Hartford	Healthcare	7/2/2013	$ 62,000,000	$ -	$ 24,000,000	$ -	$ 24,000,000	2.58	213	200	290	550	337
Sustainable Building Systems	East Windsor	Green Technology	5/5/2014	$ 79,000,000	$ 19,100,000	$ -	$ -	$ 10,000,000	7.90	0	200	408	40	40
Deloitte	Hartford, Stamford, and Wilton	Financial Services	8/15/2014	$ 38,364,810	$ -	$ 14,500,000	$ -	$ 14,500,000	2.65	1,153	200	500	1,255	102
Bridgewater Associates	Westport, Wilton, and Norwalk	Financial Services	3/10/2016	$ 505,500,000	$ 17,000,000	$ 5,000,000	$ 30,000,000	$ 52,000,000	9.72	1,225	200	750	1,608	383
Charter Communications I	Stamford	Digital Media	1/17/2014	$ 5,180,553	$ 6,500,000	$ 2,000,000	$ -	$ 8,500,000	0.61	260	200	300	707	447
Charter Communications II	Stamford	Digital Media	Awaiting Contract	$ 90,000,000	$ 10,000,000	$ -	$ 15,000,000	$ 25,000,000	3.60	664	200	1450	664	0
Navigators	Stamford	Insurance	5/8/2013	$ 13,500,000	$ 8,000,000	$ 3,500,000	$ -	$ 11,500,000	1.17	0	200	200	213	213
Pitney Bowes	Stamford, Danbury, and Shelton	Manufacturing	7/30/2014	$ 9,000,000	$ 15,000,000	$ 1,000,000	$ 10,000,000	$ 21,000,000	0.43	1,600	200	200	1,601	1
EDAC	Cheshire	Manufacturing	11/7/2014	$ 73,299,750	$ 38,000,000	$ 10,000,000	$ -	$ 38,000,000	1.93	349	200	200	562	213
Synchrony Bank	Stamford	Financial Services	12/15/2015	$ 51,300,000	$ -	$ 20,000,000	$ -	$ 20,000,000	2.57	310	200	400	728	418
Henkel of America, Inc.	Stamford	Consumer Goods	4/26/2018	$ 30,000,000	$ 20,000,000	$ -	$ 5,000,000	$ 25,000,000	1.20	678	200	266	950	272
AQR Capital Management, LLC	Greenwich and Trumbull	Financial Services	11/18/2016	$ 37,783,300	$ 28,000,000	$ 7,000,000	$ -	$ 35,000,000	1.08	541	200	600	770	229
Amazon	North Haven	Consumer Goods	Awaiting Contract	$ 255,000,000	-	-	$ 20,000,000	$ 20,000,000	12.75	1,998	200	2,000	1,998	0
ASML US LLC* **	Wilton	Manufacturing	6/26/2018	$ 68,911,102		$ 14,000,000	$ 6,000,000	$ 20,000,000	3.45	1,222	200	524	1,222	0
Infosys	Hartford	Information Technology	Awaiting Contract	$ 6,600,000		$ 14,000,000		$ 14,000,000	0.47	780	200	1,000	780	0
Electric Boat	Groton	Ship Building	Awaiting Contract	$ 852,000,000	$ 35,000,000	$ 8,000,000		$ 43,000,000	19.81	11,300	200	1,881	11,300	0
Ideanomics (Seven Stars Cloud)	West Hartford	Asset Digitalization	6/29/2018	$ 273,300,000	$ 10,000,000			$ 10,000,000	27.33	0	200	330	0	0
TOTALS:				**$ 2,867,884,595**	**$ 247,600,000**	**$ 129,000,000**	**$ 126,000,000**	**$ 478,500,000**	**5.99**	**30,164**	**4,000**	**13,015**	**34,278**	**4,114**

*Total Assistance to be Earned = State Grants + Tax Credits + portion of loan that is forgivable, if the company meets its maximum job creation and capital spending milestones

**Data as of May 31, 2018. ESPN data as of September 2017. ***ASML tax credits of $6 MM are stranded tax credits, not URA.

^Amazon is eligible for an additional $5.0M in tax credits if they create an additional 200 jobs (for a total of 2,000 new jobs) ^^Charter II will earn another $5MM in tax credits if maximum jobs are created.