ANNUAL REPORT 2013

CONNECTICUT STATE COLLEGES & UNIVERSITIES

ADVANCED MANUFACTURING CENTERS INITIATIVE

"If the State of Connecticut is going to increase job growth and remain competitive, we must be aware of how critically important it is for manufacturers to have access to employees with an advanced skill set.

These Advanced Manufacturing Centers play a significant role in our efforts to prepare the next generation of manufacturing talent to fill these hi-tech, high-skill jobs, help Connecticut manufacturers grow and thrive, and ensure our state's long-term economic health."

Governor Dannel P. Malloy, State of Connecticut

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The Board of Regents (BOR) for Higher Education, the governing board of the 17 Connecticut State Colleges and Universities, is pleased to share the good work, interest and support of industry and the state in a true public-private partnership through the creation of three new Advanced Manufacturing Centers in the state.

Connecticut has addressed manufacturing issues through investment provided by the state legislature and supported by Governor Dannel Malloy in the amount of $17.8M. State bonds were provided for three additional Advanced Manufacturing Centers at three Connecticut Community Colleges (Jobs Bill). The three new Advanced Manufacturing Centers were modeled after the center located within Asnuntuck Community College. These centers were created by replicating statewide the existing program due to the success of Asnuntuck Community College's (ACC) Advanced Manufacturing Center in Enfield. More than 1,000 students have graduated from the Asnuntuck Community College manufacturing programs over the past decade, and have successfully transitioned to manufacturing jobs in the private sector.

Public Act No. 11-1 (House Bill 6801)

Public Act No. 11-1 (House Bill 6801) was passed as an act promoting Economic Growth and Job Creation in the State.

"(b) The proceeds of the sale of said bonds, to the extent of the amount state in the subsection (a) of this section, shall be used by the Board of Regents for Higher Education to establish or expand manufacturing technology programs in three regional community-technical colleges, provided such colleges demonstrate a commitment to precision manufacturing and ability to establish or expand such programs through space and faculty."

Jobs Bill funding provided selected colleges with equipment, renovations, and expansion of existing college facilities; press coverage; and legislative support. The new Advanced Manufacturing Centers provide education and training in high need occupations, (e.g. CNC manufacturing, programming and inspection) based on current and projected labor demands within the State of Connecticut.

The three new Advanced Manufacturing Centers were chosen to be placed at: Housatonic Community College (HCC) in Bridgeport (enrollment 6,077); Naugatuck Valley Community College (NVCC) in Waterbury (enrollment 7,419); and Quinebaug Valley Community College (QVCC) in Danielson (enrollment 2,086). These colleges were chosen based on a demonstrated commitment to precision manufacturing and the ability to expand programs in the areas of greatest industry need. The role of the BOR in the establishment of the new centers has included setting timelines, reviewing budgets for each project, receiving bond fund allocation, hiring architects and engineers, reviewing original college plans, creating a plan for the physical centers, and overall management and oversight.

The collaborative efforts across the system of four community colleges and their Advanced Manufacturing Center Programs have allowed participants in the program to receive a consistent, core foundational manufacturing education which provides approximately 75 to 85 percent of the basic skills needed for positions in entry-level manufacturing. Students receiving the same certificate with the same standards from each of the four Advanced Manufacturing Center colleges.

The continued mission of the Advanced Manufacturing Centers initiative has been to offer a variety of credit and non-credit certificate courses in advanced manufacturing for incumbent workers, displaced workers, returning workers, current community college students, adult education students, and technical/comprehensive high school students.

Industry support was critical during the planning and implementation process and continues to be vitally important to the future success of all four advanced manufacturing centers. Industry representatives worked collaboratively with BOR in preparing the Request for Qualification (RFQ), participated on the initial review panel, and currently serve as representatives on the Statewide Advanced Manufacturing Advisory Committee (SAMAC) and on all four colleges' regional industry advisory committees.

SAMAC was designed to assist the BOR in guiding the development of the Advanced Manufacturing Center programs. It is made up of more than 30 representatives including: five presidents of manufacturing companies, four academic deans, four industry associations, three state agencies, four advanced manufacturing center coordinators, two workforce investment board representatives, and other invited guests as deemed appropriate by the committee.

Each of the Advanced Manufacturing Centers also convenes a regional industry advisory council. We continue to add industry partners to the regional advisory boards and to SAMAC.

Dr. Gregory W. Gray, President, Board of Regents for Higher Education
Connecticut State Colleges and Universities

"Competing in the global marketplace requires Connecticut to have a well-trained workforce that responds to the needs of the state's manufacturers. The Advanced Manufacturing Centers throughout the Connecticut State Colleges and Universities (CSCU) system are now poised to prepare students for the 21st century global economy.

As we move forward in creating a world-class system of higher education—and with the support of faculty, students, state leaders and strong partnerships with the business sector—our journey will prepare our CSCU students to compete in the global economy, while helping Connecticut remain competitive."

Statewide Advanced Manufacturing Advisory Committee (SAMAC)

Tracy Ariel	Director of the Advanced Manufacturing Centers, BOR
Cathy Awwad	Northwest Regional Workforce Investment Board
Raymond Coombs	Westminster Tool
Gail Coppage	Director of Innovation and Outreach, BOR
Joseph DeFeo	Naugatuck Valley Community College. AMC
Rich DuPont	Resource Development Associates
Daniel Garewski	Capital Workforce Partners
Elliot Ginsberg	Connecticut Center for Advanced Technology
Michael Gugger	Housatonic Community College, AMC
Paul Hoffman	Orange Research
Raymond Jarvis	Asnuntuck Community College, AMC
John Kornegay	Retired industry partner
Steven LaPointe	Quinebaug Valley Community College, AMC
Kenneth Lisk	PEP Lacey Mfg.
Paul Martland	Quinebaug Valley Community College
Barbara McCarthy	Asnuntuck Community College
Carmen Molina-Rios	Department Economic and Community Development
John Murphy	Connecticut Technical High School System
Neil O'Leary	Mayor, Waterbury
Thomas Phillips	Capital Workforce Partners
Michael Polo	Adchem, Inc.
Judy Resnick	Connecticut Business and Industry Association
Elizabeth Roop	Housatonic Community College
Katie Rosa	Workforce Solutions Collaborative
Doug Rose	AeroGear
James Troup	Naugatuck Valley Community College
Patricia Van Tassel	The Barden Corporation
Gary Zweifel	Delta Industries

Our industry partners play a vital role in the success of each of the Advanced Manufacturing Centers (AMC). Industry partners work with the Centers assisting with the development and direction of the regional needs of the employers so that the AMCs can produce viable employees to fill the employment gaps. These partners provide input, opportunities, guest lecture and internships to the betterment of the students.

Asnuntuck Community College Industry Partners

Acceleron Inc.
AdChem Manufacturing
Airgas East, Inc
Arcor Lasor
ATI Ladish Machining
CBS Manufacturing
Cianbro Corporation
Clear Edge Power
CNC Engineering
Country Pure Foods
Delta Industries
Flanagan Industries
Gerber Technology
Hamilton Sundstrand
Kaman Aerospace
Joining Technologies
Leipold Inc.
Mitchell Machining
Notch Mechanical Construction
Pratt & Whitney (IAMAW)
Quality Welding, Inc.
Senior Aerospace CT
Sterling Engineering
Technical Education Products
United Steel
Westinghouse Electric

Housatonic Community College Industry Partners

Alloy Engineering
Bri Metal Works
Bridgeport Fittings
PEP Lacey Manufacturing
Moore Tool
Orange Research
RBC Bearings
Schwerdtle Manufacturing
Sikorsky
Straton Industries

Naugatuck Valley Community College Industry Partners

Acme Monoco Corporation
Anomatic Corporation
Arthur G. Russell
Barden Corporation
Carpin Mfg.
Component Engineering Corporation
Concentric Tool
CON-Tec, Inc.
Danver Corporation
EDAC/Apex Machine Tool
HDB Inc.
Holo-Krome
H&T Waterbury
Gar Kenyon Corporation
GSS Corporation
Hylie Products
Mirror Polishing Products
Noujaim Tool Company
OKAY Industries
Pegasus Mfg
Platt Brothers, Corporation
Prospect Machine Products, Inc.
Ramdy Corporation
Rand Machine
RBC Corporation
Seidel Corporation
Siemon Corporation
The Marion Manufacturing Co.
Tier One Machining
Traver IDC
Truelove & Mclean
Trumph Corporation
Ward Leonard
Winsted Precession Ball

Quinebaug Valley Community College

ARS Products Inc.
Bollore Inc.
Baystate Machine, LLC
Century Tool Company
Foster Corporation
General Cable Corporation
Linemaster Switch Corporation
Plas-Pak Industries Inc.
Pro-Manufactured Products
Putnam Plastics Company
Putnam Precision Molding
Spirol Corporation
Superwinch Inc.
Unicorr Packaging Group
Unified Sports Inc. & Jaypro Sports
Web Industries
Westminster Tool

2013
Advanced Manufacturing
Center Awards Ceremony
Industry Partner Awards

(L-R, Ray Coombs, Gary Zweifel, Doug Johnson, Ken Lisk, and Kathy Saint)

In December 2013, the Board of Regents recognized in an awards ceremony those industry partners who have gone above and beyond in their support and leadership in the establishment of the Advanced Manufacturing Centers. Below are the awardees by college:

Asnuntuck Community College

Gary Zweifel, *Director of Human Resources, Delta Industries, East Granby.*
Gary has been involved with the ACC's Manufacturing Technology program and its creation since the beginning in 1998. He was one of the founding members of the committee who established the Asnuntuck manufacturing programs. He has also served on the executive board of the Aerospace Components Manufacturers organization, a consortium of 80 companies and 5,500 employees.

Housatonic Community College

Ken Lisk, *President, PEP Lacey Mfg., Bridgeport.*
Ken has been an outstanding proponent of the Advanced Manufacturing program. He sponsored (paid in full and allowed time for participation) one of his employees in the first year. He is on the Industrial Advisory Committee and the Board for the Foundation for HCC. Ken is a champion of the Advanced Manufacturing program, diligently working to insure its success. PEP Lacey is a long time manufacturing organization in Bridgeport, Connecticut.

Naugatuck Valley Community College

Doug Johnson, *Vice President of Operations, The Marion Manufacturing Co., Cheshire.*
Doug is a key industry partner and strong advocate for the Advanced Manufacturing Technology Center at Naugatuck Valley Community College. Since the program's inception in 2012, Doug has been extremely helpful in terms of providing expert guidance and support to the program. Doug is a committed member of the Advanced Manufacturing Technology advisory committee for Naugatuck Valley Community College and is the president of the Smaller Manufactures Association (SMA)

Quinebaug Valley Community College

Ray Coombs, *President, Westminster Tool, Inc., Plainfield.*
Ray has been instrumental in promoting and supporting the Advanced Manufacturing Technology Center at QVCC. Two of Westminster's employees participated in the first year of the program at QVCC. He is also the president of the Eastern Advanced Manufacturing Alliance, formerly QMI. His straight talk and leadership have been an inspiration to bring manufacturing to the forefront in Eastern Connecticut.

During these very difficult budgetary times, the Connecticut Community Colleges will need to find new avenues for wider support and collaboration of programs and initiatives, working together with external partners to support new programming and other opportunities for students, faculty, staff and industry. This model has served to further support economies of efficiency across the system of institutions. In 2013, this model received the National Integration and Innovation Award from the Society for College and University Planners (SCUP).

Industry Trade Associations

Aerospace Components Manufacturers (ACM)
Connecticut Business and Industry Association (CBIA)
Connecticut Center for Advanced Technology (CCAT)
Eastern Advanced Manufacturing Alliance (EAMA)
New Haven Manufacturing Association (NHMA)
Northwestern Manufacturing Coalition (NWMC)
Smaller Manufacturers Association (SMA)

Workforce Development Partners

Capital Workforce Partners (Hartford)
Connecticut Department of Economic and Community Development
Connecticut Department of Labor
CT Employment and Training Commission (CETC)
Connecticut Women's Education and Legal Fund
Eastern CT Regional Workforce Investment Board (Franklin)
Northwest Regional Workforce Investment Board, Inc. (Waterbury)
The Workplace, Inc. – Southwest Regional Workforce Investment Board (Bridgeport)
Workforce Alliance – South central Regional Workforce Investment Board (New Haven)
Workforce Solutions Collaborative of Metro Hartford

In addition to the learning outcomes identified in the first year, the colleges were responsible for pinpointing sources of support, guidance, planning, and funding to replicate a single program across several campuses. The four Advanced Manufacturing Centers continue to foster relationships with industry, review outcomes of new academic programs, and predict long-term outcomes of training the under-employed and unemployed in higher quantity with the skills required by our partners.

Occupation Profile: The Advanced Manufacturing Centers' focus is on the training and job placement for employment in a manufacturing environment. Below is data for a basic machinist, including the job description, knowledge, training, wage opportunities, and occupational outlook.

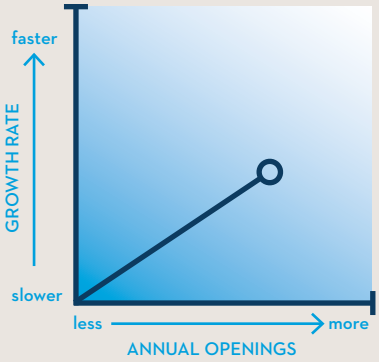
MACHINISTS

Occupation Description: Set up and operate a variety of machine tools to produce precision parts and instruments. Include precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures.

WAGE INFORMATION				
Region	**Average Annual**	**Average Hourly**	**Entry Level (hourly)**	**Mid-Range (hourly)**
Statewide Units	$44,430.00	$21.36	$14.30	$16.40 - $26.00
Bridgeport/Stamford	$49,222.00	$23.67	$13.75	$16.13 - $31.11
Danbury	$44,521.00	$21.40	$12.32	$13.64 - $27.71
Hartford	$45,615.00	$21.94	$15.79	$17.89 - $26.19
New Haven	$39,495.00	$18.99	$12.70	$14.21 - $23.59
New London/Norwich	$39,576.00	$19.03	$13.28	$14.06 - $23.62
Waterbury	$41,501.00	$19.95	$13.74	$15.13 - $23.28
Torrington	$37,296.00	$17.93	$11.26	$12.69 - $22.95
Danielson	$46,344.00	$22.28	$13.05	$14.38 - $27.63

Occupation Outlook: Growth in manufacturing is expected to increase

GROWTH			
Region	**Employment 2010 2020**	**Average Annual Growth Rate**	**Average Annual Job Openings**
State of Connecticut	8,320 8,840	6.25%	205



Employment in the manufacturing occupations is expected to grow as fast as average, and the number of annual openings will offer very good job opportunities. (1)Connecticut Department of Labor, Current Employment Statistics, April 2012

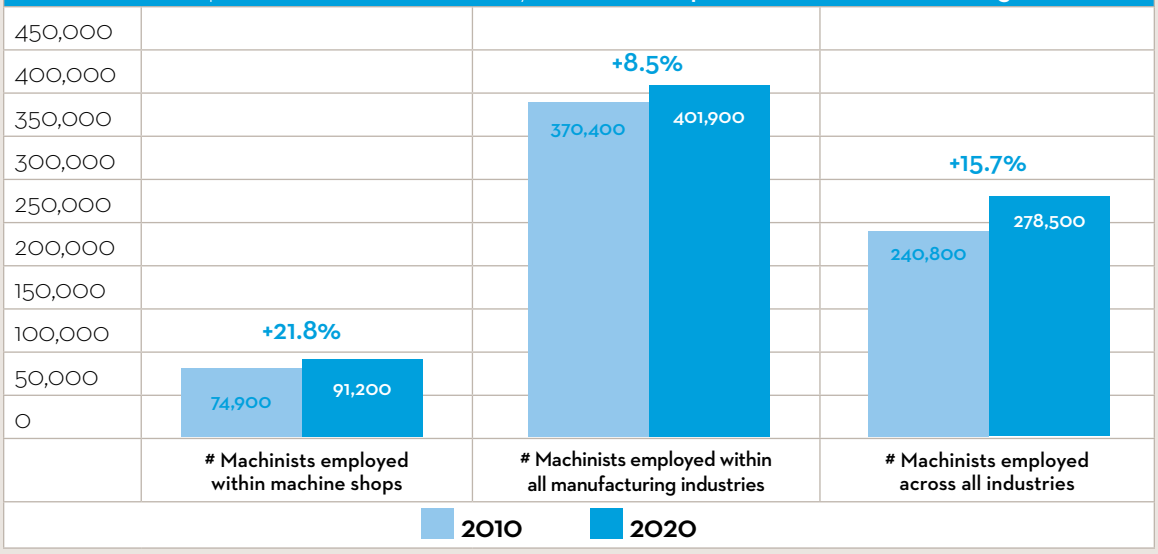
Similar Occupations:

- Mechanical Engineering Technicians
- Millwrights
- Aircraft Structure, Surfaces, Rigging, and Systems Assemblers
- Engine and Other Machine Assemblers
- Model Makers, Metal and Plastic
- Inspectors, Testers

STATE AND NATIONAL TRENDS (2) (3)				
United States	**Employment 2010**	**2020**	**Percent Change**	**Job Openings[1]**
Machinists	370,400	401,900	+9%	9,950
Connecticut	**Employment 2010**	**2020**	**Percent Change**	**Job Openings[1]**
Machinists	8,320	8,840	+6%	210

[1]Job Openings refers to the average annual job openings due to growth and net replacement.
(2)National Data Source: Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections
(3)State Data Source: Connecticut Department of Labor, Office of Research

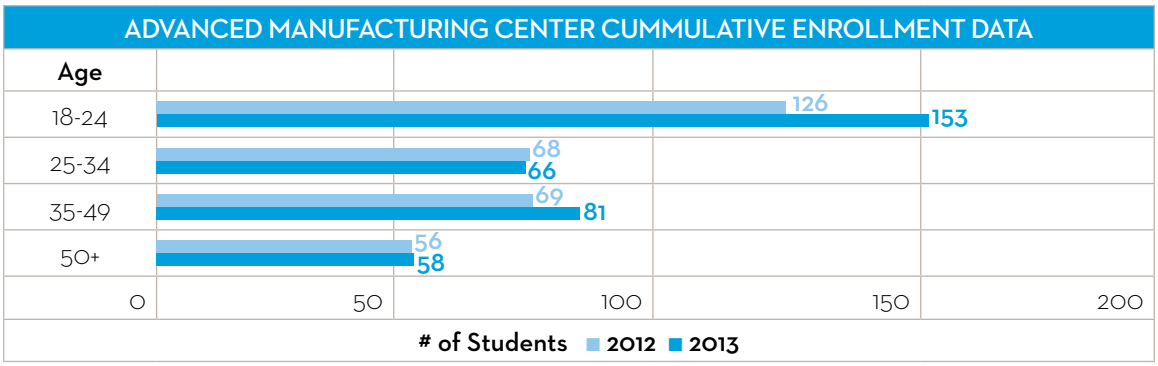
CT EMPLOYMENT TRENDS BY INDUSTRY AND OCCUPATION (4)
Occupation: **Machinists** Industry: **Machine shops** Division: **Manufacturing**

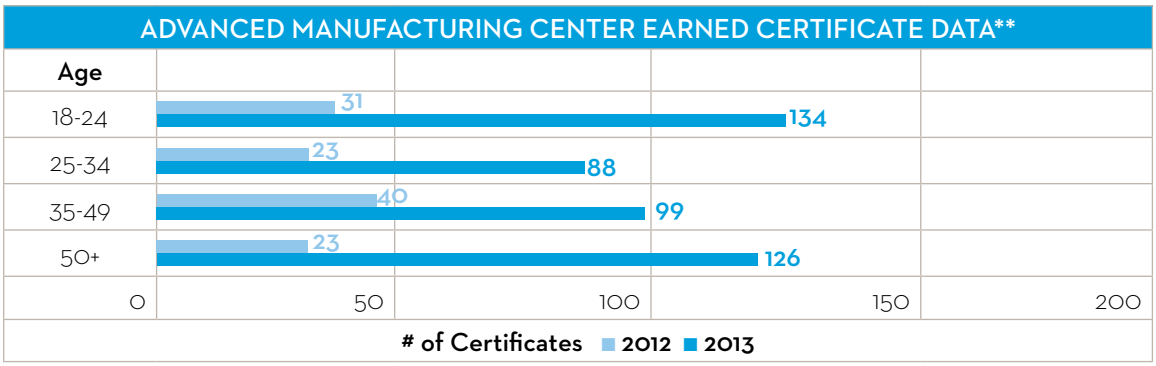


This report compares the projected changes in both the occupation and industry at the national level. (Note: Go to the Connecticut Department of Labor, Labor Market Information for detailed state industry projections). Occupations grow or decline at different rates than the industry in which they belong. For example, the industry might be growing while the occupation is declining. An occupation's future can be more clearly understood by comparing the different growth rates. (4) National Data Source: Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections

The Advanced Manufacturing Centers service a diverse population of students throughout the Connecticut Community College System. Students are prepared for a career in manufacturing and are provided classroom instruction, computer, and hands-on training in a lab environment.

Students can earn two certificates in year one or a two-year associate degree. Nine out of 10 graduates obtain a job within three months of graduating. Internships at manufacturing companies are available for qualified students. The mission of the Advanced Manufacturing Centers is to successfully transition students from an educational environment into the manufacturing workforce.





**** Students can earn two certificates in one year in the Advanced Manufacturing Program.**

Source: Academic summary and graduation schema of Instructional Research Database (IRDB)

IRDB Age By Advanced Machining ProgramGraduations.SQL

ADVANCED MANUFACTURING CENTERS ENROLLMENT 2012-2013					
Enrollment Level	**Asnuntuck CC**	**Housatonic CC***	**Naugatuck Valley CC**	**Quinebaug Valley CC**	**Totals**
Employment in Manufacturing	108	32	29	30	**199**
Graduates	129	23	40	33	**225**
Enrollment Level II	141	36	46	42	**265**
Enrollment Level I	154	55	57	52	**318**

** Housatonic CC's employment in year one exceeds their graduate numbers due to students who were able to obtain employment in manufacturing before completion of the level II certificate.*

88%

of graduates from the Advanced Manufacturing Centers gain employment in Manufacturing

ADVANCED MANUFACTURING CENTERS ENROLLMENT 2013-2014					
Enrollment Level	**Asnuntuck CC****	**Housatonic CC**	**Naugatuck Valley CC**	**Quinebaug Valley CC**	**Totals**
Enrollment Level II	181	29	39	47	**296**
Enrollment Level I	196	33	43	51	**323**

***Asnuntuck CC's Advanced Manufacturing Centers enrollment includes students in different levels of the program and only students in the certificate programs.*

The students below were recognized at the Advanced Manufacturing Awards Ceremony on December 11, 2013 at the State of Connecticut Legislative Office Building. Each college identified one student as exceptional and rising above, due to his or her skill, leadership and determination.

L-R, Darlene Blumenthal, Christopher Heun, Ian Bothur, and Pedro Rivera

Asnuntuck Community College

Pedro Rivera of New Britain started in the Asnuntuck Community College Advanced Manufacturing Center program in January 2013. He excelled in all areas of the coursework and graduated in December 2013. As one of the top students in his class, Pedro graduated with Dean's List honors. In February 2014, Pedro accepted a machinist position with AeroGear in Windsor with a starting wage of $17.00 per hour. Pedro is a veteran of the United States Army having served for 6 years, and is a husband and a father.

Housatonic Community College

Christopher Heun of Stamford worked hard to finish strong in his grades and ranking in the Advanced Manufacturing Center Program at HCC. Chris's efforts in the program along with his background in art provided him with the exact skill set needed at Schwerdtle Stamp Company. Chris continues to be a valued member of the manufacturing workforce at Schwerdtle Stamp Company.

Naugatuck Valley Community College

Darlene Blumenthal of Waterbury entered the Advanced Manufacturing Program in the Fall 2012. Darlene had the distinction of being one of six women enrolled in the inaugural class of the Advanced Manufacturing Technology Certificate Program. Upon completion of the certificate programs in May 2013, with a GPA of 3.55, Darlene has been recruited by Tier One in Newtown. She is presently a full-time, inspection and machining technician. Additionally, Darlene is continuing her studies, part-time, in pursuit of an associate degree.

Quinebaug Valley Community College

Ian Bothur of Baltic graduated with his certificates from the Advanced Manufacturing Program in 2013. He was a Dean's list honor student with a 3.96 GPA. Ian served through an AMC paid internship at ERW until the semester ended. He was then hired full time at ERW, Inc., an aerospace component manufacturer in Putnam. Ian also holds a bachelor of science in Philosophy. He was recently married and looks forward to pursuing an engineering degree.

EXPENSES FOR PHASE I PROJECTS

HOUSATONIC CC BI-CTC-463 FUNDING SOURCE PA-1-11, Sec 32 Includes Bond Fund Expenditures from FY12 and FY13	
	Expenses
Construction (includes cost for telecom)	838,598
Equipment (includes capital equipment and classroom equip)	1,497,577
Fees related to construction	101,680
Totals	**2,437,855**

HOUSATONIC CC EQUIPMENT LIST – PHASE I		
Manufacturer/ Equipment Type	**# of Pieces**	**Description**
Hardinge/Bridgeport Knee Mill	5	Milling Machine
Republic Lagun Lathe	8	13" Manual Engine Lathe
Chevalier Grinder	4	Handfed Surface Grinder
Samsung Machine Tools	1	CNC Turning Center
Leadwell	1	CNC Turning Center
Quaser Machine Tools	2	Vertical Machining Center
Quaser Machine Tools	1	5-Axis CNC Vertical Machining Center
Do-All	1	Horizontal Metal Cutting Band Saw
Do-All	1	Vertical Band Saw w/Tilt Table
Kalamazoo Machine Tool	1	Vertical Column Type 14" Cold Saw
Hexagon Metrology	1	7-Axis High Accuracy Romer Arm
Hexagon Metrology	1	Thick Steel Cart w/Laptop Tray (Romer Arm)
HB Communications	2	LCD/DATA Video Projector
HB Communications	2	Document Camera
HB Communications	2	HD 8X1 HDMI Switcher
HB Communication	2	5.7 Wall Mount Touchpanel
DELL	22	PC
Hewlett Packard	1	Line Jet Black and White Printer
Lista	2	Cabinet – 11 drawer
	2	Teacher's station
Hewlet Packard	1	Plotter

EXPENSES FOR PHASE I PROJECTS

NAUGATUCK VALLEY CC BI-CTC-459 FUNDING SOURCE PA-1-11, Sec 32 Includes Bond Fund Expenditures from FY12 and FY13	
	Expenses
Construction (includes cost for telecom)	1,011,061
Equipment (includes capital equipment and classroom equip)	1,555,232
Fees related to construction	104,904
Totals	**2,671,197**

NAUGATUCK VALLEY CC EQUIPMENT LIST – PHASE I		
Manufacturer/ Equipment Type	**# of Pieces**	**Description**
Hardinge/Bridgeport Knee Mill	10	Milling Machine
Bridgeport/Proto-Trak	1	Milling Machine w/(2) Axis CNC Control
Republic Lagun Lathe	9	13" Manual Engine Lathe
Chevalier Grinder	4	Handfed Surface Grinder
Samsung Machine Tools	1	CNC Turning Center
Leadwell	1	CNC Turning Center
Quaser Machine Tools	2	Vertical Machining Center
Quaser Machine Tools	1	5-Axis CNC Vertical Machining Center
Do-All	1	Horizontal Metal Cutting Band Saw
Do-All	1	Vertical Band Saw w/Tilt Table
Kalamazoo Machine Tool	1	Vertical Column Type 14" Cold Saw
Hexagon Metrology	1	7-Axis High Accuracy Romer Arm
Hexagon Metrology	1	Thick Steel Cart w/Laptop Tray (Romer Arm)
MSC Industrial	1	Drum Transporter, 880lb Capacity
Mitsubishi	2	3500 Lumens Projector
Creston	1	Isys 5.7" Tilt Touchpanel
Creston	1	AV Compact Control System
Creston	1	Visual Presenter Including DVD/VCR
Hewlett Packard	27	All-in-One 4G PC
Lista	2	Cabinet – 11 drawer
	2	Teacher's station

EXPENSES FOR PHASE I PROJECTS

QUINEBAUG VALLEY CC BI-CTC-462 FUNDING SOURCE PA-1-11, Sec 32 Includes Bond Fund Expenditures from FY12 and FY13	
	Expenses
Construction (includes cost for telecom)	29,000 Equipment currently housed in Ellis Technical HS
Equipment (includes capital equipment and classroom equip)	305,247
Fees related to construction	18,309
Totals	**352,556****
*** Quinebaug has utilized a minimal portion of its allotted funds due to the larger investment in the construction of a new facility. No construction costs were used in year one.*	

QUINEBAUG VALLEY CC – PHASE I EQUIPMENT LIST		
Manufacturer/ Equipment Type	**# of Pieces**	**Description**
Republic Lagun Lathe	9	13" Manual Engine Lathe
Do-All	1	Horizontal Metal Cutting Band Saw
Hexagon Metrology	1	7-Axis High Accuracy Romer Arm
Hexagon Metrology	1	Thick Steel Cart w/Laptop Tray (Romer Arm)
Lyon Cabinet	1	Cabinet – 11 drawer
	1	6x48 Belt 12" 1PH Jet combo. Finishing Mach

EXPENSES FOR PHASE I PROJECTS

ASNUNTUCK COMMUNITY COLLEGE FUNDING SOURCE PA-1-11, Sec 31 & 32 Includes Bond Fund Expenditures from FY12 and FY13	
	Expenses
Construction (includes cost for telecom)	0
Equipment (includes capital equipment and classroom equip)	631,452
Fees related to construction	0
Totals	**631,452**

ASNUNTUCK CC EQUIPMENT PURCHASE LIST		
Manufacturer/ Equipment Type	**# of Pieces**	**Description**
Lincoln	1	Stick Welder
Atlas Copco	1	GA22 + Compressor
Uni-Hydro	1	Pro 105
Uni- Hydro	1	3/8"x51" plate shear
Cincinnati Proform	1	Hydraulic Press Break 60PF4
Hexagon Metrology	1	Absolute 7525 SI
Machine Tools USA	1	Flow waterjet system mach 213136
Mazak	1	Veritcal Center 400-5X Matrix 2 control 5-axis milling machine
Montgomery Peterson	1	Hydraulic Attachment
Montgomery Peterson	1	Marvel Vertical band saw, Model 8 MKS
Northern Plasma Sales	1	NVDH 5'x5" plasma table and thermal dynamics A120 torch
MSC	1	6500 Optical Comparator
Do-All	2	Vertical band saw and Horizontal band saw
Kalamazoo	1	Manual vertical column cold saw
Bridgeport	1	Milling machine – series 1
Republic Lagun Lathe	1	Turnmaster manual engine lathe
Quasar	1	Vertical machining center with rotary table
Samsung	1	Turning machining center and conveyor
Emco	1	Mills and turn 55 lathes
Spectrum	1	Media Mgr. V2 left Hvy Duty Caster
Tech Ed	2	3D Systems Cube2 & CubeX TrioPrinters
Pegasus	1	Robotic Learning System &flex workstation
VRM Machinery	1	Third axis installation on laxis eztrak

In the first year the Advanced Manufacturing Centers of the BOR have had several collaborative opportunities to strengthen the manufacturing pipeline through programs which involve multi-agency partnerships and system partnerships.

On-line manufacturing course. The BOR facilitated a partnership with Central Connecticut State University's Institute of Technology and Business Development (ITBD) and Charter Oak State College to create, implement, and host an Introduction to Manufacturing course. Introduction to Manufacturing 101, is a fully on-line non-credit course, offered free of charge to any interested participant. *http://www.ct.edu/academics/online*

Apprenticeship. The CT Department of Labor apprenticeship model works in conjunction with the instruction providers and industry to develop an apprentice training program. This new collaboration will allow the advanced manufacturing students to retroactively receive certified related instruction hours toward their apprenticeship from the inception of the new Advanced Manufacturing programs in 2012.

The Dream It Do It campaign. (a National initiative). Governor Malloy proclaimed October Manufacturing Month in the State of Connecticut in 2012 and 2013. In 2013, Dream It Do It (facilitated through CCAT) produced two Manufacturing Mania events in October focusing on introducing middle school students to manufacturing. The first event was held at the Oakdale Theatre in Wallingford, in which 400 students attended. The second event was held at Three Rivers Community College in Norwich, in which 100 students attended.

Step Up conferences. Sponsored by the CT Department of Labor and the CT Department of Economic Development. These conferences were geared toward area companies seeking to learn more about available tax and workforce initiatives. Conferences were held in Groton, Milford, and Asnuntuck Community College in Enfield. The Advanced Manufacturing Centers were provided the opportunity to present the benefits of the program to regional employers during these conferences.

Educational Success Compact. The BOR has created an Educational Success Compact with the CT Technical High School System to support a myriad of career pathways, including advanced manufacturing, for graduates of the CT Technical High School System to the twelve community colleges of the CSCU system. This emphasis also recognizes credentialing.

Advanced Manufacturing Workgroup in Bridgeport. The Department of Labor organized a workgroup to include local government officials, the Regional Workforce Investment Board, the Advanced Manufacturing Center at Housatonic CC, local government employment agencies and the local technical and comprehensive high schools. The mission of this workgroup is to bring interested parties together for the betterment of the local industry and workforce needs.

Four Community College Advanced Manufacturing Centers

Under PA-1-11-32, on March 30, 2012, $8,900,000 was allocated for the first round of the Advanced Manufacturing Centers' projects projects or Phase I. On June 21, 2013, $8,900,000 was allocated for the second round of projects or Phase II.

The BOR, with the agreement of the Statewide Advanced Manufacturing Advisory Committee (SAMAC), posted a request for qualifications to contract an equipment consultant to assist the three new Advanced Manufacturing Centers in purchasing the equipment for Phase II in each of the Centers. The Connecticut Center for Advanced Technology (CCAT) was awarded the contract. The equipment consultant's task was to align the requests for the additional equipment from the colleges with the current and proposed curriculum while continuing to support the needs of industry.

Asnuntuck Community College Phase II plans: Under PA 1-1-31, on March 30, 2012 ,ACC was allocated $1,100,000 for equipment related to the expansion of the Advanced Manufacturing Center. On August 31, 2012, ACC was allocated an additional $1,100,000 to support infrastructure for the expansion. PA 1-11-32 was also amended to add the fourth Advanced Manufacturing Center at Asnuntuck Community College in Enfield. Asnuntuck received funding for two projects. The two projects were: the construction of the new welding and fabrication area and the relocation of metrology training lab.

The addition will provide modern facilities for the college's welding program, currently housed in an undersized area. The existing welding laboratory (1,300 SF) supports more than 40 full-time students daily. The project will demolish 850 SF of existing one-story construction, renovate 3,012 SF of existing space and add 3,421 SF of new construction. These projects are on-going.

Housatonic Community College (HCC) Phase II plans: Through an industry survey and Housatonic's Industry Advisory Board, the decision was made to alter the direction of the Phase II plans for HCC. HCC's original Phase II plan was to receive up to $1.5M in additional funding to support the addition of a Welding Lab. The revised proposal would be to expand the current Advanced Manufacturing Center to meet the demands of the surrounding industry needs. HCC received approximately $2.5M in Phase I funding. An updated proposal will be needed to report a total proposed allocation to the college (Phase I and II).

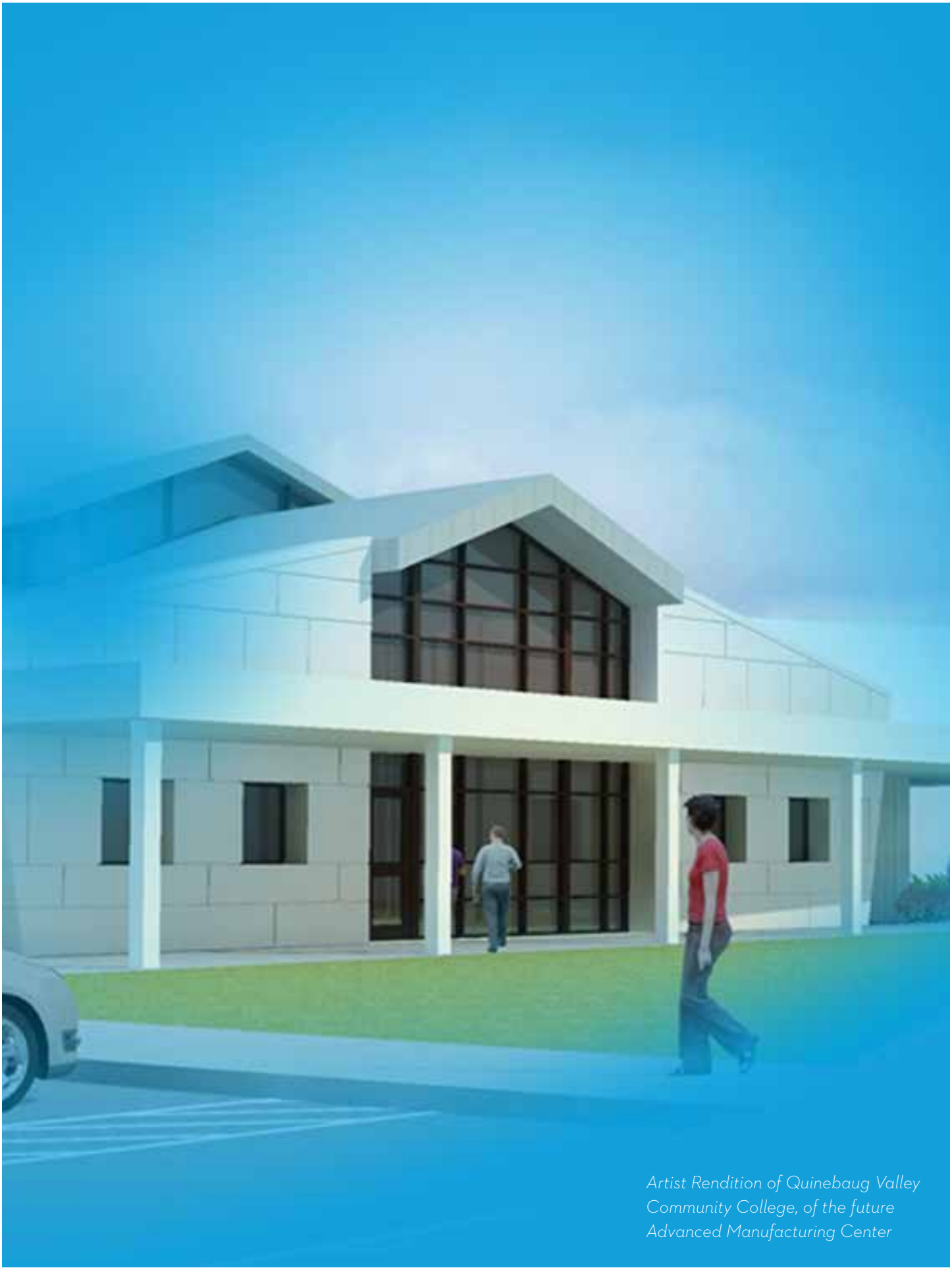
Naugatuck Valley Community College (NVCC) Phase II plans: NVCC will receive up to $825,000 for the addition of machinery and equipment to support local industry needs. The BOR is supportive of efforts to further grow this new program with enhancements to existing approved coursework that supports local and regional industry. Naugatuck Valley received approximately $2.6M in Phase I funding. Total proposed allocation to the college (Phase I and II) is anticipated to be $3.5M.

Quinebaug Valley Community College (QVCC) Phase II plans: QVCC will receive up to $8.5M for an addition to the existing college facility to house the Advanced Manufacturing Center at the college. QVCC created a partnership relationship with Ellis Technical High School to house the existing advanced manufacturing program until such time as the college could grow the successful program through the expansion of space at the campus. This new manufacturing center will accommodate the program and support the needs of local industry. QVCC received approximately $350,000 in Phase I funding. Total proposed allocation to the college (Phase I and II) is anticipated to be $8.9M.

IMMEDIATE NEXT STEPS

- Focus on student enrollment, retention and completion rates
- Stronger marketing approach
- Professional Development for faculty
- Include embedded opportunities for credentialing through curriculum completion
- Increase opportunities for new industry partnerships
- Strenghten relationship between BOR and CT Technical High School system

Special thanks to Governor Dannel P. Malloy and the General Assembly for their continued support of the Advanced Manufacturing Centers Initiative.



Artist Rendition of Quinebaug Valley Community College, of the future Advanced Manufacturing Center

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