



Illinois Network for Advanced Manufacturing

INAM Grant Meeting
INAM Initiatives and Innovations Conference
June 10 – 11, 2015

Wednesday June 10 8:30 – 9 AM Full breakfast

9 – 4:00 PM Conference

Thursday June 11 8:30 – 9 AM Full breakfast

9 – 12 PM Conference followed by lunch

Harper College

Wojcik Conference Center

1200 W. Algonquin Road

Palatine, IL 60067

(847)925-6630

Goal Statement: *INAM project goal is to expand and improve the delivery of education and career training programs leading to industry-recognized certificates or associate degrees that can be completed in two years or less and prepare Trade Adjustment Assistance (TAA)-eligible and other workers for employment in high-wage, high-skill advanced manufacturing occupations.*

INAM Initiatives and Innovations Conference

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Illinois Network for Advanced Manufacturing

INAM Initiatives and Innovations Conference

June 10, 2015 Wednesday

8:30 AM – 4:30 PM

June 11, 2015 Thursday

8:30 AM – 12 PM followed by lunch

Harper College

1200 W. Algonquin Road Palatine, IL 60067

Wojcik Conference Center

AGENDA

Goals of Meeting: *Colleges will review the goals and priorities of the INAM grant to assess progress towards those goals; learn how to create a crosswalk between military experiences and college credit; engage with INAM participant veterans on access to community college enrollment; understand what it means to be an M-List school with the Manufacturing Institute; discuss jobs in the metropolitan Chicago area; and acquire tips on better ways to display data for marketing successes. Letters from the four universities with articulation agreement with the INAM colleges will be distributed. Special guest speaker, Dr. Michelle Weise will deliver keynote address on disruptive innovation in higher education. INAM College Presidents will meet to review progress of the grant. Time is available to network with other colleges.*

(Ongoing INAM Video filming throughout the day available in W214)

Wednesday, June 10th

8:30 AM Full Breakfast (provided by the INAM Consortium)

9:00 AM Welcome K Ender
R Lake

- Introduction of Attendees
- Review of INAM Status

9:30 AM Data Update and University Partners M MacGregor
R Wolf
L Mehalich

- 10:00 AM Veterans: Mapping Credentials for College Programs Bridget Petzold
South Regional Liaison,
Center for Education Attainment and Innovation
American Council on Education
- 11:00 AM Short Break
- 11:15 AM Veteran’s Panel of Current INAM Students
Jeff Ivens - Corporal, Marine Corps - AAS Manufacturing Technology - Harper College
Sean Kohl - US Navy (RET) – AAS Manufacturing Technology - Harper College
Allen Spensley - Air Force, Civil Engineering – Welding Technology Certificate
- College of DuPage
Ivan Sanchez - Marine Corps - AAS Engineering Mechatronics - Triton College
- 12:00 PM Lunch (provided by the INAM Consortium)
- 1:00 PM Advantages to being an M List School Brent Weil
Senior Vice President for Education & Workforce
The Manufacturing Institute
- 1:30 PM Continuous Quality Improvement Review R Lake
- 1:45 PM 1,000 Jobs Campaign Haven Allen
Strategy Manager, Plan for Economic Growth and Jobs
World Business Chicago
Loren Dinneen
Program Manager, Plan for Economic Growth & Jobs
World Business Chicago
- 2:30 PM Networking and Ice Cream Social
Featuring bachelor completion degree programs at:
Governors State University Northern Illinois University
Southern Illinois University Western Illinois University
- 3:00 PM Data Visualization for Marketing Successes Dawn Coleman
Director, The Center for Applied Research,
Central Piedmont Community College
- 4:00 PM Wrap up of the day/Questions
Dinner on your own with people from INAM Consortium

Day Two of INAM Initiatives and Innovations Conference

Thursday, June 11th

8:30 AM Full Breakfast (Provided by the INAM Consortium)

9:00 AM Disruptive Innovation in Community Colleges Dr. Michelle Weise
Senior Research Fellow on Higher Education
Clayton Christensen Institute
New Position: Executive Director of the Innovation Lab
Southern New Hampshire University

10:15 AM Short Break

President's Advisory Committee Meeting Room 214

10:30 AM Welcome & Remarks K Ender
Introduction of Presidents & Guests

10:45 AM Overview of INAM Grant Activities R Lake
M MacGregor

11:15 AM Review of the Year 2 Evaluation B Chaney

11:30 AM Utilizing INAM Innovations at your College P Bucci

11:45 AM Questions and answers Group

11:55 AM Closing remarks K Ender

12:00 PM Lunch (Provided by the INAM Consortium)

Safe Travels



Illinois Network for Advanced Manufacturing

List of INAM Consortium Member Colleges

1. College of DuPage
2. College of Lake County
3. Daley (City Colleges of Chicago)
4. Danville Area Community College
5. Elgin Community College
6. Harper College (Grant Fiscal Agent)
7. Illinois Eastern Community College
8. Illinois Valley Community College
9. John Wood Community College
10. Joliet Junior College
11. Kankakee Community College
12. Kishwaukee College
13. Lincoln Land Community College
14. McHenry County College
15. Oakton Community College
16. Prairie State College
17. Richland Community College
18. South Suburban College
19. Southwestern Illinois College
20. Triton College
21. Waubonsee Community College

ILLINOIS NETWORK for ADVANCED MANUFACTURING Priorities and Strategies

Priority 1.0	Create educational plans that provide a clear pathway and lattice to industry-recognized credentials in advanced manufacturing.
Strategy 1.1	Develop educational plans outlining coursework and timelines.
Strategy 1.2	Develop a mechanism for awarding academic credit for prior learning.
Priority 2.0	Implement programs along the career pathway and lattice that meet advanced manufacturing industry needs and result in industry-recognized credentials and/or associate degrees.
Strategy 2.1	Offer bridge programs in technical skills.
Strategy 2.2	Offer programming leading to the National Career Readiness Certificate (NCRC).
Strategy 2.3	Enhance programming in areas of specialization certificate programs.
Strategy 2.4	Offer associate degree completion.
Priority 3.0	Develop online and technology-enabled learning by strategically aligning INAM programs with technology purchased by the Illinois Green Economy Network (IGEN), a first-round TAA awardee.
Strategy 3.1	Engage in a partnership with IGEN in using National Training Education Resource (NTER) System.
Priority 4.0	Develop partnerships with employers that include paid internships and on-the-job training opportunities in advanced manufacturing.
Strategy 4.1	Engage employers to secure paid internships and on-the-job training.
Strategy 4.2	Conduct regular employer input and feedback sessions.
Priority 5.0	Provide placement services that connect students to available jobs in advanced manufacturing.
Strategy 5.1	Develop a platform that provides job posting capabilities for employers and résumé posting for students.
Strategy 5.2	Enhance the image of advanced manufacturing.
Priority 6.0	Improve articulation of credit between two-year and four-year colleges to facilitate pursuit of additional education in advanced manufacturing.
Strategy 6.1	Develop articulation agreements with four-year colleges and universities.



Illinois Network for Advanced Manufacturing

Nine Deliverables to be Assessed For All Consortium Members

A list of general outcomes found in the grant:

1. Total of unique participants served (new students).
2. Total number of participants completing a TAACCCT-funded program of study.
3. Total number of participants still retained in their program of study or other TAACCCT-funded program.
4. Total number of participants completing credit hours.
5. Total number of credentials awarded.
6. Total number of participants enrolled in further education after TAACCCT-funded program of study completion.
7. Total number of participants employed after TAACCCT-funded program of study completion.
8. Total number of participants retained in employment after program of study completion.
9. Total number of those participants employed at enrollment who received a wage increase post-enrollment.

DOL Deliverables: Projected & Actual Numbers by College

	Unique Participants Served		Participants Completing a TAACCCT-Funded Program of Study		Participants Still Retained in Program of Study or Other TAACCCT-Funded Program		Credit Hours Completed		Credentials Earned	
	Projected	ACTUAL	Projected	ACTUAL	Projected	ACTUAL	Projected	ACTUAL	Projected	ACTUAL
Totals:	2487	2216	1292	308	1132	1248	2054	17867	1826	953
College of DuPage	36	52	36	1	92	33	114	582	46	1
College of Lake Daley	39	91	31	0	5	21	36	204	31	161
Danville Area	120	138	48	10	35	88	56	953	106	65
Eigin	51	120	25	12	5	82	27	1026	43	9
Harper	182	79	109	26	54	39	182	1234	109	48
Illinois Eastern	160	261	30	29	75	148	160	2557	104	36
Illinois Valley	150	76	72	7	42	67	110	1481.5	86	5
John Wood	139	102	42	22	59	44	96	693.5	99	27
Joliet Junior	172	152	85	75	35	38	47	1194	85	119
Kankakee	132	118	55	24	39	54	95	1023.5	106	71
Kishwaukee	129	27	45	7	43	13	90	342	78	18
Lincoln Land	118	221	16	18	51	156	65	1094	16	20
McHenry County	129	104	73	32	56	27	129	722	73	34
Oakton	202	144	184	33	22	55	188	955	184	17
Prairie State	160	106	91	2	51	98	178	658	91	2
Richland	117	67	64	0	7	66	51	132	73	43
South Suburban	63	100	22	0	43	68	63	943	27	0
Southwestern Illinois	129	21	77	0	142	7	102	36	223	0
Triton	74	114	21	3	26	77	56	1014.5	21	270
Waubonsee	138	78	131	7	242	53	187	809	190	7
	47	45	35	0	8	14	22	213	35	0

Run Date: 6/02/2015

Illinois Network of Advanced Manufacturing (INAM) Grant
Budget Scorecard Expenditures

June 3, 2015

INAM Consortium Colleges	Total 4-Year Grant Award	Personnel & Fringes Expensed to Date	Travel Expensed to Date	Equipment Expensed to Date	Supplies Expensed to Date	Contractual/ Consultant Expensed to Date	Other Expensed to Date	Indirect Costs Expensed to Date	To-Date Grant Award Spent	To-Date Grant Award Remaining	% of Goal Achieve ment
College of DuPage	\$ 520,015	\$ 265,166	\$ -	\$ 112,263	\$ 43,428	\$ 8,365	\$ -	\$ -	\$ 429,222	\$ 90,793	82.54%
College of Lake County	\$ 525,769	\$ 229,218	\$ 623	\$ 81,864	\$ 43,349	\$ -	\$ 459	\$ -	\$ 355,513	\$ 170,256	67.62%
Daley City Colleges of Chicago	\$ 86,335	\$ -	\$ -	\$ -	\$ 27,543	\$ 19,179	\$ 5,000	\$ -	\$ 51,722	\$ 34,613	59.91%
Danville Area Community College	\$ 525,654	\$ 220,289	\$ 7,061	\$ 197,213	\$ 3,098	\$ 2,615	\$ -	\$ -	\$ 430,276	\$ 95,378	81.86%
Elgin Community College	\$ 525,769	\$ 308,052	\$ 4,687	\$ 85,947	\$ 25,332	\$ -	\$ 4,716	\$ -	\$ 428,734	\$ 97,035	81.54%
Harper College	\$ 515,000	\$ 28,125	\$ 8,664	\$ 338,606	\$ 12,587	\$ 69,432	\$ 3,740	\$ -	\$ 461,154	\$ 53,846	89.54%
Illinois Eastern Community College	\$ 525,769	\$ 144,332	\$ 10,707	\$ 187,804	\$ 128,464	\$ 13,995	\$ -	\$ -	\$ 485,302	\$ 40,467	92.30%
Illinois Valley Community College	\$ 525,769	\$ 104,927	\$ 7,928	\$ 220,435	\$ 43,794	\$ 5,175	\$ 2,250	\$ -	\$ 384,509	\$ 141,260	73.13%
John Wood Community College	\$ 525,769	\$ 284,954	\$ 5,181	\$ 46,453	\$ 109,589	\$ -	\$ -	\$ 39,809	\$ 485,986	\$ 39,783	92.43%
Joliet Junior College	\$ 525,769	\$ 61,075	\$ 14,870	\$ 372,890	\$ 37,713	\$ -	\$ -	\$ -	\$ 486,548	\$ 39,221	92.54%
Kankakee Community College	\$ 525,769	\$ 163,350	\$ 3,343	\$ 209,140	\$ 46,867	\$ 8,685	\$ 2,874	\$ -	\$ 434,258	\$ 91,511	82.59%
Kishwaukee College	\$ 525,616	\$ 138,318	\$ 3,504	\$ 109,577	\$ 73,239	\$ 45,309	\$ 9,092	\$ -	\$ 379,038	\$ 146,578	72.11%
Lincoln Land Community College	\$ 525,769	\$ 238,921	\$ 6,987	\$ 140,652	\$ 17,080	\$ 18,471	\$ 10,057	\$ -	\$ 432,168	\$ 93,601	82.20%
McHenry County College	\$ 525,743	\$ 148,137	\$ 123	\$ 192,254	\$ 66,882	\$ -	\$ 37,956	\$ -	\$ 445,351	\$ 80,392	84.71%
Oakton Community College	\$ 525,769	\$ 209,516	\$ 9,438	\$ 41,258	\$ 38,836	\$ 6,970	\$ 7,274	\$ 23,223	\$ 336,516	\$ 189,253	64.00%
Prairie State College	\$ 525,769	\$ 218,582	\$ 2,631	\$ 221,847	\$ 14,604	\$ 7,767	\$ -	\$ -	\$ 465,430	\$ 60,339	88.52%
Richland Community College	\$ 525,755	\$ -	\$ 9,542	\$ 487,007	\$ 16,173	\$ -	\$ 2,305	\$ -	\$ 515,027	\$ 10,728	97.96%
South Suburban College	\$ 525,769	\$ 55,838	\$ 476	\$ 286,542	\$ 58,376	\$ 4,848	\$ 17,059	\$ -	\$ 423,138	\$ 102,631	80.48%
Southwestern Illinois College	\$ 525,769	\$ 61,619	\$ 3,954	\$ -	\$ 294,157	\$ -	\$ 3,392	\$ -	\$ 363,122	\$ 162,647	69.06%
Triton College	\$ 522,306	\$ 167,836	\$ 994	\$ 159,640	\$ 39,289	\$ 5,071	\$ 30,698	\$ -	\$ 403,528	\$ 118,778	77.26%
Waubonsee Community College	\$ 525,769	\$ 106,903	\$ 6,578	\$ 284,442	\$ 89,214	\$ 3,515	\$ -	\$ -	\$ 490,652	\$ 35,117	93.32%
TOTALS:	\$ 10,581,421	\$ 3,155,156	\$ 107,291	\$ 3,775,835	\$ 1,229,614	\$ 219,396	\$ 136,870	\$ 63,032	\$ 8,687,194	\$ 1,894,227	82.10%

Green = on track, no immediate action required
 Yellow = caution, watch progress
 Red = critical, take immediate action

**TAACCCT Grant
INAM Consortium
Grant Funds Remaining by College**

	COD	CLC	*Daley	Danville	Elgin	Harper	Ill Eastern	Ill Valley	John Wood	Joliet Jr	Kankakee	Kishwaukee
Payroll	41,409.92	74,861.37	-	65,890.29	45,632.13	41,825.00	141,494.07	50,192.19	34,029.36	17,679.93	66,883.96	47,078.71
Fringe Benefits	5,546.38	37,335.01	-	(4,180.14)	38,521.64	7,969.72	45,434.24	47,559.95	874.23	8,977.46	17,391.48	23,542.72
Travel & Meetings	3,220.00	16,528.80	2,435.00	(611.21)	2,813.15	673.35	2,301.88	16,096.88	(0.14)	2,679.51	4,906.56	1,060.41
Equipment	(0.07)	3,936.05	-	0.40	(0.46)	(559.47)	(81,350.44)	-	(0.58)	(0.09)	(8,139.75)	-
Supplies	18,401.77	13,334.36	33,322.00	20,106.57	6,730.97	3,845.75	(55,924.66)	27,435.80	0.79	9,884.25	1,633.26	38,465.11
Contractual	22,215.00	10,500.00	(1,143.75)	6,172.00	-	91.50	(11,488.17)	(25.00)	-	-	8,315.00	43,690.95
Other Expense	-	13,760.84	-	8,000.00	3,337.41	-	-	-	-	-	520.45	(7,259.50)
Indirect Cost	-	-	-	-	-	-	-	-	4,879.31	-	-	-
TOTAL	90,793.00	170,256.43	34,613.25	95,377.91	97,034.84	53,845.85	40,466.92	141,259.82	39,782.97	39,221.06	91,510.96	146,578.40

	Lincoln Land	McHenry	Oakton	Prairie State	Richland	SouthSub	SWIC	*Triton	Waubonsee	Original Total Budget	2014 Budget Modification	Total Funds Remaining
Payroll	48,254.84	30,762.81	73,120.35	41,502.89	-	104,911.70	56,914.06	40,601.03	37,152.49	4,146,523	-	1,231,377.00
Fringe Benefits	36,513.01	27,327.31	30,913.59	9,997.48	-	-	15,718.38	18,076.15	(12,455.35)	999,893	-	362,304.00
Travel & Meetings	613.34	192.95	(1,219.39)	(242.59)	(2,992.37)	1,524.28	8,492.58	2,206.24	(2,277.54)	2,018,106	(203,285)	106,589.70
Equipment	(1,316.07)	16,746.35	45,741.65	5,350.12	(24,207.26)	2,285.00	-	-	-	1,172,049	349,146	(41,514.62)
Supplies	4,603.51	0.09	(9,672.37)	(1,428.67)	33,827.27	(3,798.72)	72,839.85	56,929.15	12,872.84	287,980	(32,366)	277,588.46
Contractual	239.08	-	33,000.43	5,160.00	4,150.00	2,152.00	-	(1,374.40)	(175.00)	3,754,982	(20,662)	552,533.10
Other Expense	4,693.05	5,362.12	457.30	-	(49.90)	(4,443.69)	8,682.02	2,339.65	-	475,103	(92,833)	196,422.05
Indirect Cost	-	-	16,911.89	-	-	-	-	-	-	84,823	-	21,791.20
TOTAL	93,600.76	80,391.63	189,253.45	60,339.23	10,727.74	102,630.57	162,646.89	118,777.82	35,117.44	12,939,459	-	2,707,090.89

19 Colleges as of April 2015 - 2 Colleges as of March 2015 (see asterisk)

*Daley (City Colleges of Chicago) and Triton College

6/3/2015

2015 Budget Modification to clear negatives in progress upon agreement with the INAM Fiscal Agent. All budgets targeted to be zero by December 2015.

[Budget Modification Request Form](#)

Submit To: inam@harpercollege.edu

Grant Director - Rebecca Lake
 William Rainey Harper College
 Illinois Network for Advanced Manufacturing
 1200 W. Algonquin Rd.
 Palatine, IL 60067-7398
TC-23795-12-60-A-17

From Consortium Member:

College
 Address
 Completed By:
 Date Submitted
 Email
 Phone

Complete this Column

BUDGET LINE	Original Budget	Expenditures to Date	2014 Budget Request +/-(-)	Current Remaining Balance Available	New 2015 Budget Request +/-(-)	Revised Budget
Personnel						\$ -
Fringe Benefits						\$ -
Travel & Meetings						\$ -
Equipment						\$ -
Supplies						\$ -
Contractual / Consultant						\$ -
Other						\$ -
Indirect Costs						\$ -
Total					\$ -	\$ -

Budgeted Change must equal \$0.00

Total must be -0-

Must match Current Remaining Balance

Reason / Justification For Request

Video by Exclaim

Producer:

Randy Kamptner
Principal, Exclaim, Inc.
rkamptner@exclaim-inc.com

Videographer:

Rick Meredith
rick@cmmlink.com

(Ongoing INAM Video filming throughout the day available in W214)

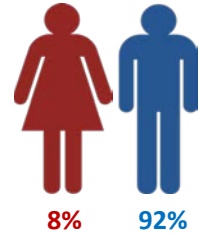
What we know about

INAM

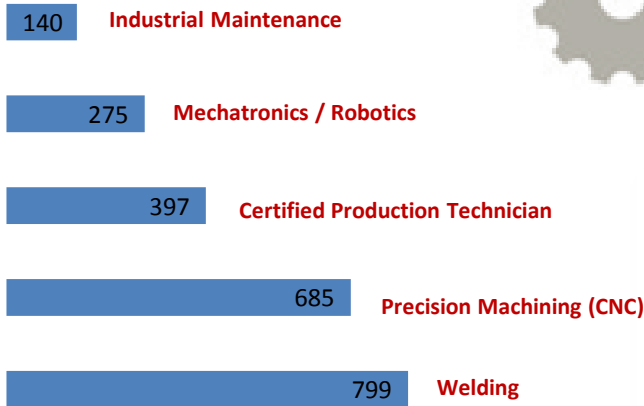
as of 6/2/15



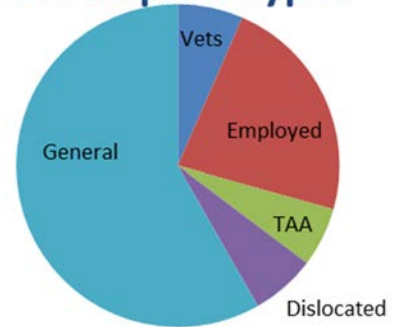
F::M Student Ratio



Students / Program



Participant Types

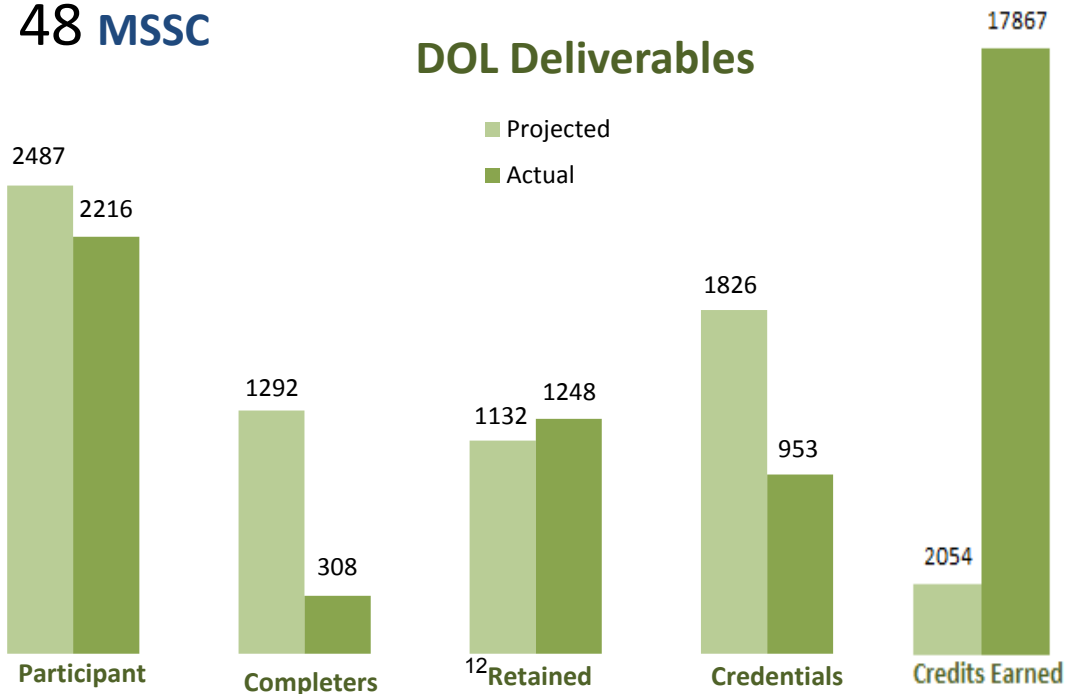


Credentials Earned

498 NIMS

48 MSSC

DOL Deliverables





Illinois Network for Advanced Manufacturing

Manufacturing Articulation Agreements between INAM Colleges and University Partners

University		Bachelor Degree
Governors State University	Jun Zhao, D.B.A Division Chair and Professor of Management College of Business & Public Administration jzhao@govst.edu (708)-534-4953	Bachelor of Arts in Manufacturing Management
Northern Illinois University	Cliff Mirman, Ph.D., P.E. Professor and Chair Department of Technology cmirman@niu.edu (815)-753-0531	Bachelor of Science in Technology with an emphasis in Applied Manufacturing Technology
Southern Illinois University - Carbondale	Marilyn Updike Program Advisor for Industrial Technology 1230 Lincoln Dr., Mail Code 6603 Carbondale, IL 62901 mmupdike@siu.edu 618-453-7989	Bachelor of Science Industrial Technology
Western Illinois University	C. Ray Diez, CSTM, DIT Professor & Chair Engineering Technology Department College of Business & Technology cr-diez@wiu.edu (309)-298-1091	Bachelor of General Studies with a minor in Technical Management

University Partners

Articulation Agreements

One of the six priorities of INAM was to improve articulation of credit between two-year and four-year colleges to facilitate pursuit of additional education in advanced manufacturing. The universities below have agreed to a Blanket Articulation Agreement with INAM Consortium colleges. These universities have completion degrees available completely online and will allow the student to continue attending their local community college to obtain general education requirements for an additional year. They will accept all the credits in a technical AAS degree. This agreement is open to all INAM students pursuing an associates degree in advanced manufacturing.



Jun Zhao, D.B.A
Division Chair and Professor of Management
College of Business & Public Administration
jzhao@govst.edu
(708)-534-4953

Bachelor of Arts in Manufacturing Management



Northern Illinois University

Cliff Mirman, Ph.D., P.E.
Professor and Chair
Department of Technology
cmirman@niu.edu
(815)-753-0531

Bachelor of Science in Applied Manufacturing Technology



Marilyn Updike
Program Advisor for Industrial Technology
1230 Lincoln Dr., Mail Code 6603
Carbondale, IL 62901
mmupdike@siu.edu
618-453-7989

Bachelor of Science Industrial Technology



WESTERN ILLINOIS UNIVERSITY

C. Ray Diez, CSTM, DIT
Professor & Chair
Engineering Technology Department
College of Business & Technology
cr-diez@wiu.edu
(309)-298-1091

Bachelor of General Studies with a minor in Industrial Technology

Illinois Network for Advanced Manufacturing

City Colleges of Chicago – Daley
College of DuPage
College of Lake County
Danville Area Community College
Elgin Community College
Harper College
Illinois Eastern Community Colleges

Illinois Valley Community College
John Wood Community College
Joliet Junior College
Kankakee Community College
Kishwaukee College
Lincoln Land Community College
McHenry County College

Oakton Community College
Prairie State College
Richland Community College
South Suburban College
Southwestern Illinois College
Triton College
Waubensee Community College

Our Mission

Expand and improve the delivery of education and career training programs leading to industry-recognized certificates or associate degrees that can be completed in two years or less and prepare Trade Adjustment Assistance (TAA)-eligible and other workers for employment in high-wage, high-skill advanced manufacturing occupations.



College of Business and
Public Administration
University Park, IL 60484
708.534.4930
Fax: 708.534.6981
www.govst.edu/cbpa

INAM TAACCCT Office
William Rainey Harper College
1200 W. Algonquin Road
Palatine, Illinois 60067

March 15, 2015

Dear Melissa MacGregor,

This letter is to outline Governors State University's (GSU) partnership with the Illinois Network for Advanced Manufacturing (INAM) consortium. INAM consists of 21 community colleges throughout Illinois educating tomorrow's skilled workforce in advanced manufacturing. The outcome of this collaborative endeavor is a written agreement between the INAM consortium colleges and Governors State University providing for a formalized pathway for student transfer. However, it is incumbent upon each INAM college to sign their individual articulation agreement with GSU which is sponsored by this partnership.

Governors State University agrees to accept all the AAS degree credits in a related advanced manufacturing discipline into the Bachelor of Arts in Manufacturing Management program of any INAM student. This satisfies the university's requirements for the first 60 credits of the bachelor's degree in Manufacturing Management.

GSU agrees to work with individual students to enable acceptance of an additional 13 credits (or more as needed) awarded at their home community college towards the general education requirement of the degree. Also expediting this process towards the completion of the bachelor's degree, 48 hours of the GSU's coursework is available online. This outstanding 3+1 program is available for all advanced manufacturing AAS degree completers of INAM consortium 21 colleges.

The cornerstone of the collaborative partnership includes accepting all the credits of the AAS degree as outlined in the attached outline of the GSU BA in Manufacturing Management.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jun Zhao'.

Jun Zhao, D.B.A
Division Chair and Professor of Management
College of Business & Public Administration
Governors State University



NORTHERN
ILLINOIS
UNIVERSITY

COLLEGE OF ENGINEERING
AND ENGINEERING
TECHNOLOGY

DEPARTMENT OF
TECHNOLOGY

DEKALB, ILLINOIS
60115-2854

(815) 753-1349

FAX
(815) 753-3702

INAM TAACCCT Office
William Rainey Harper College
1200 W. Algonquin Road
Palatine, Illinois 60067

May 27, 2015

Dear Ms. MacGregor,

This letter outlines Northern Illinois University's (NIU) partnership with the Illinois Network for Advanced Manufacturing (INAM) consortium to provide a formalized pathway for student transfer from INAM-related AAS programs to NIU's Bachelor of Science in Applied Manufacturing Technology.

INAM is a consortium of 21 community colleges throughout Illinois focusing on educating tomorrow's skilled workforce in advanced manufacturing. NIU's College of Engineering and Engineering Technology has designed its new online Bachelor of Science in Applied Manufacturing Technology to provide easy transfer to qualified students into a baccalaureate program designed to accommodate the schedules of working adults.

This letter outlines an agreement between Northern Illinois University and community colleges within INAM. Based on the details outlined below, each INAM college will sign an individual articulation agreement with NIU. Northern Illinois University College of Engineering and Engineering Technology agrees to accept the AAS degree credits from INAM-related programs into our new Bachelor of Science in Applied Manufacturing Technology (BS in AMT). The BS in AMT is directly related to the education goals of graduating INAM students. This transfer program will allow students graduating from any of the INAM programs to transfer 60 credit hours into the NIU Applied Manufacturing Technology program.

The NIU College of Engineering and Engineering Technology and Department of Technology agrees to work with individual students to enable acceptance of an additional required 30 credits for technical studies awarded by their home community college. The remaining 30 semester hours of credit needed for graduation in this program will be provided through course work in the NIU Department of Technology.

Dr. Promod Vohra, Dean
College of Engineering and Engineering Technology
Northern Illinois University

March 5, 2015

engineering.siu.edu/tech

INAM TAACCCT Office
William Rainey Harper College
1200 W. Algonquin Road
Palatine, Illinois 60067

Dear Melissa MacGregor,

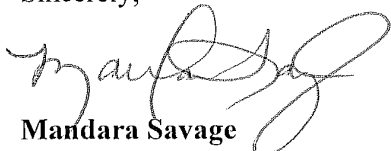
This letter is to outline Southern Illinois University Carbondale's (SIUC) partnership with the Illinois Network for Advanced Manufacturing (INAM) consortium. INAM consists of 21 community colleges throughout Illinois educating tomorrow's skilled workforce in advanced manufacturing. The outcome of this collaborative endeavor is a written agreement between the INAM consortium colleges and Southern Illinois University Carbondale providing for a formalized pathway for student transfer. However, it is incumbent upon each INAM college to sign their individual articulation agreement with SIUC which is sponsored by this partnership.

Southern Illinois University Carbondale agrees to accept all the AAS degree credits in a related advanced manufacturing discipline into the Bachelor of Science in Industrial Technology program of any INAM student. This satisfies the university's requirements for the first 60 credits of the bachelor's degree in Industrial Technology.

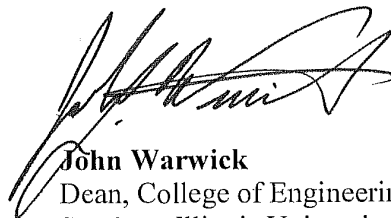
SIUC agrees to work with individual students to enable acceptance of an additional 12 credits awarded at their home community college. Also expediting this process towards the completion of the bachelor's degree, 48 hours of the SIUC's coursework is available online as well as at three convenient satellite campuses: Triton, Lake County, and Joliet. This outstanding 3+1 program is available for all advanced manufacturing AAS degree completers of INAM consortium 21 colleges.

The cornerstone of the collaborative partnership includes accepting all the credits of the AAS degree as outlined in the attached outline of the SIUC BS in Industrial Technology.

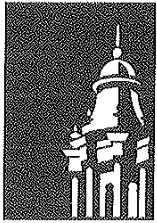
Sincerely,



Mandara Savage
Chairman, Department of Technology
Southern Illinois University Carbondale



John Warwick
Dean, College of Engineering
Southern Illinois University Carbondale



**WESTERN
ILLINOIS
UNIVERSITY**

INAM TAACCCT Office
William Rainey Harper College
1200 W. Algonquin Road
Palatine, Illinois 60067

March 5, 2015

Dear Melissa MacGregor,

This letter is to outline Western Illinois University's (WIU) partnership with the Illinois Network for Advanced Manufacturing (INAM) consortium. INAM consists of 21 community colleges throughout Illinois educating tomorrow's skilled workforce in advanced manufacturing. The outcome of this collaborative endeavor is a written agreement between the INAM consortium colleges and Western Illinois University providing for a formalized pathway for student transfer. However, it is incumbent upon each INAM college to sign their individual articulation agreement with WIU which is sponsored by this partnership.

Western Illinois University agrees to accept all the AAS degree credits in a related advanced manufacturing discipline into the Bachelor of General Studies with a Minor in Technology Management program of any INAM student. This satisfies the university's requirements for the first 60 credits of the bachelor's degree with an emphasis in Technology Management.

WIU agrees to work with individual students to enable acceptance of an additional 30 credits awarded at their home community college. Also expediting this process towards the completion of the bachelor's degree, 30 hours of the WIU's coursework is available online. This outstanding 3+1 program is available for all advanced manufacturing AAS degree completers of INAM consortium 21 colleges.

The cornerstone of the collaborative partnership includes accepting all the credits of the AAS degree as outlined in the attached outline of the WIU BGS with a minor in Technology Management.

Sincerely,

C. Ray Diez, CSTM, DIT
Professor & Chair
Engineering Technology Department
College of Business & Technology
Western Illinois University

Veterans: Mapping Credentials for College Programs

Speaker:

Bridget Petzold
South Regional Liaison
Center for Education Attainment and Innovation
American Council on Education

(PowerPoint presentations available at www.inam.net following the conference.)

Email: bpetzold@acenet.edu

Mapping Military Training to Curriculum Credit

How to Create a Map

A. From scratch

1. For a Broad Overview of Occupation (MOS)
 - a. Begin with ACE Military Guide found at www.acenet.edu/news-room/Pages/Military-Guide-Online.aspx
 - b. Search Occupations
 - i. Choose branch (Army, Navy, National Guard, etc.)
 - ii. Enter occupation title then “Search”
 - iii. Click on the MOS and service dates most applicable from list
 - iv. Occupation Exhibit is generated listing skills by level (rank) and ACE credit recommendation
2. To Match a Specific Course
 - a. Start at the beginning of the ACE Military Guide
 - b. Search Courses
 - i. Choose branch
 - ii. Under Course Subject enter MOS name
 - iii. Click on courses most applicable
 - i. Verify dates
 - ii. Start with courses most service members take (AIT, BNOC, ANOC, etc).
3. Begin with the lowest skill level and build up
4. Courses begin to overlap across programs and creating the map becomes less cumbersome

B. From current students JTS

1. Pull transcript and correlate any course credit awarded by evaluator
2. Build from current transfer credit

Created by:

Bridget Petzold

Regional Liaison, American Council on Education

bpetzold@acenet.edu



Tips for using the ACE Military Guide – Occupation Search

Using the fields in the Occupation search allows the user to narrow the search. If any of the fields are unknown, leave the field blank.

Occupations: This drop down menu allows you to narrow the search by branch

Occupation Title: Insert to job title in words exactly

Occupation Designator: Insert the number and letter associated with the military job. This field can be used if only the number, and not the letter, is known.

Subject: Insert the type of credit recommendation desired

Sample of Military Occupation Designators for INAM:

14T Air Defense System Maintenance
15E Unmanned Aircraft Systems Repairer
15T UH-60 Helicopter Repairer
15S OH-58D Helicopter Repairer
19 K Armor Crewmen
44E Mechanical Maintenance
91B Wheel Vehicle Mechanic
91X Maintenance Supervisor
120A Construction Engineering Tech
210A Utilities Operation

Sample of Subject areas for INAM:

Industrial Maintenance
Metal Working
Welding
Production Technician

For more information contact:

Bridget Petzold
Regional Liaison-South
American Council on Education
College and University Partnerships
bpetzold@acenet.edu

Resources to Mapping Military Training to Curriculum Credit

Credit for Prior Learning Brief: Charting Institutional Practice for Sustainability

<http://www.acenet.edu/news-room/Pages/Credit-for-Prior-Learning-Charting-Institutional-Practice-for-Sustainability.aspx>

American Council on Education Military Guide

<http://www.acenet.edu/news-room/Pages/Military-Guide-Online.aspx>

American Council on Education National Guide

<http://www2.acenet.edu/credit/?fuseaction=browse.main>

American Council on Education: College and University Partnerships

<http://www.acenet.edu/cup>

American Council on Education Veteran Friendly Toolkit

<https://vetfriendlytoolkit.acenet.edu>

JST Frequently Asked Questions

<http://jst.doded.mil/faq.html>

JST Video and Resources

www.jointservicetranscript.com/

Search for applicable MOS

<http://www.careersinthemilitary.com>

Ivy Tech Community College

http://www.ivytech.edu/pla/MilitaryCrosswalk_7-11-14.pdf

Minnesota State Colleges & Universities

Veterans Education Transfer System

<http://www.mnscu.edu/collegesearch/index.php/vets/search>

Fayetteville Tech Community College

Military Transfer Credit for Veterans and Service Members

http://www.faytechcc.edu/fort_bragg/militarycredittransferforveteransandservicemembers.aspx

AM Short Break

Veteran's Panel

Panel Members:

- Jeff Ivens - Corporal, Marine Corps - AAS Manufacturing Technology with emphasis in Precision Machining - Harper College
- Sean Kohl - US Navy (RET) - AAS Manufacturing Technology - Harper College
- Allen Spensley - Air Force, Civil Engineering - Welding Technology Certificate - College of DuPage
- Ivan Sanchez - Marine Corps - AAS Engineering Mechatronics - Triton College

Veteran's Panel

Discussion Panel: Jeff Ivens
Sean Kohl
Allen Spensley
Ivan Sanchez

What are the FACILITATORS to accessing community colleges for veterans?

What are the BARRIERS to accessing community colleges for veterans?

Suggestions for ways community colleges can become more veteran friendly.

Break for Lunch

Advantages to being an M List School

Speaker:

Brent Weil

Senior Vice President for Education & Workforce
The Manufacturing Institute

(PowerPoint presentations available at www.inam.net following the conference.)

Email: BWeil@nam.org

THE M-LIST

Brent Weil
Senior Vice President
The Manufacturing Institute




(Mis)Perceptions Cost Us Workers

Generation Y (ages 19-33) Respondents	
Industry	Rank
Technology	1
Healthcare	2
Financial services	3
Retail	4
Communications	5
Energy	6
Manufacturing	7

Source: 2015 Manufacturing Institute and Deloitte Public Perception of Manufacturing Study

Filling Jobs Is Difficult...

84% of executives surveyed agree there is a talent shortage in U.S. manufacturing

SIX out of TEN open skilled production positions are unfilled due to talent shortage



even when **80%** of manufacturers are willing to pay more than the market rates

Source: 2015 Manufacturing Institute and Deloitte Skills Gap Study

Advantages to being an M List School

...And It's Going to Get More Difficult

- 2.7M baby boomer retirements
- + 700K manufacturing jobs expected from economic expansion
- 3.4M manufacturing jobs are likely to be needed by 2025
- 1.4M jobs are likely to be filled

2M jobs unfilled due to the skills gap

Source: 2015 Manufacturing Institute and Deloitte Skills Gap Study

There is Hope...

Programs would increase interest in manufacturing

- 72% Internships, work study or apprenticeship
- 52% Tours of advanced manufacturing facilities for students

Those familiar with manufacturing are 2x as likely to consider it

Source: 2015 Manufacturing Institute and Deloitte Public Perception of Manufacturing Study

3 STEPS TO CLOSE THE GAP



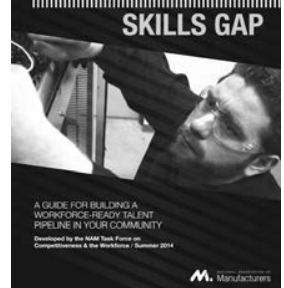
National Leadership and Local Action

CLOSE THE SKILLS GAP

A Framework to Address the Current and Future Skills and Workforce Development Gaps




OVERCOMING THE MANUFACTURING SKILLS GAP



Advantages to being an M List School

CHANGE THE PERCEPTION OF CAREERS IN MANUFACTURING


Image



Veterans Youth Women






Dream It. Do It.



EVERY PARENT WANTS TO SEE THEIR CHILD SUCCEED.
Learn more about the great opportunities available in manufacturing.

COMMUNICATING POSITIVE CAREER CHOICES



Advantages to being an M List School

RE-ESTABLISH THE U.S. AS THE GLOBAL LEADER OF MANUFACTURING EDUCATION

Quality

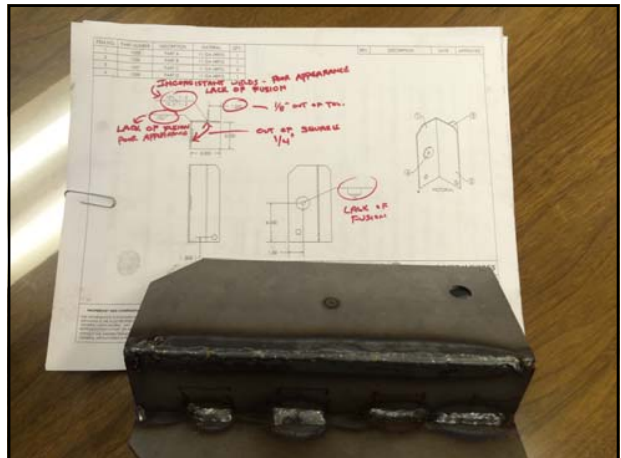


Developing Quality Education



SKILLS CERTIFICATION SYSTEM

15 Endorsed Certifications



Advantages to being an M List School



Building the Pipeline

NATIONAL SURVEY ON THE VALUE OF A CREDENTIALLED WORKFORCE

Final Report

More than **419,000** industry certifications

Over 90% of companies that use certifications believe they make a difference

MAGNET The Innova Foundation M Institute

ADVOCATE FOR EDUCATION AND JOB TRAINING POLICIES THAT STRENGTHEN THE U.S. MANUFACTURING WORKFORCE

Policy

Informing the dialogue

- New research reports
- Workforce Innovation and Opportunity Act (WIOA)
- Advanced Manufacturing Partnership (AMP) 2.0

State Responses to the Skills Gap

Successful Policies Advancing Industry-Credentials and Manufacturing Education

GLOBAL RESPONSES TO THE SKILLS GAP

AN INTERNATIONAL SYMPOSIUM ON MANUFACTURING WORKFORCE SOLUTIONS

NOVEMBER 18 8:30 AM - 3 PM

REPORT TO THE PRESIDENT ACCELERATING U.S. ADVANCED MANUFACTURING

Executive Office of the President
President's Council of Advisors on Science and Technology
October 2014



Advantages to being an M List School

JOINING THE M-LIST




Quality Workforce

- Certified Students
- Certified Instructors
- Certified Schools

For Certified Manufacturing Talent, there's only One Source.



Getting on the M-List

- Deliver a manufacturing-related program that includes at least one of the technical certifications in a credit-bearing program
- Or provide a pathway to credit (e.g. articulation or block credit upon enrollment)

Application

Home Skills Certification Research Image Initiatives About

Application for M-List Recognition

Below is the application for membership in the M-List. Please provide all required information. After submitting your application, The Manufacturing Institute may call you to follow up and ask for additional information.

Important Application Information:

- Please note **you will be required to submit this spreadsheet in the application** in order to submit.
- In the section entitled "Current Manufacturing-Related Programs," please only list certifications supported by the **NAM-Endorsed Manufacturing Skills Certification System**.
- **Right Skills Now** is an accelerated delivery model for the NAM-Endorsed Manufacturing Skills Certification System.
- For additional information, please see the **Criteria for Membership** in the M-List, the **Statement of Principles**, and a **Legal Disclaimer**.

Application for Membership

Application for membership for the M-List

RETURN ON INVESTMENT



Heard this before?

“Training is
always the first
thing cut”



Aligning Education with Industry

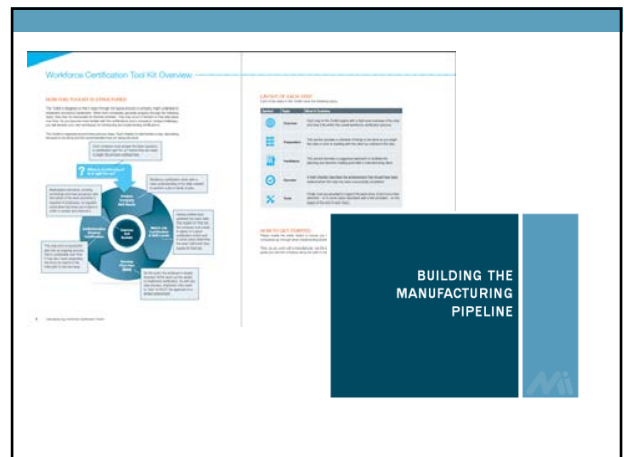
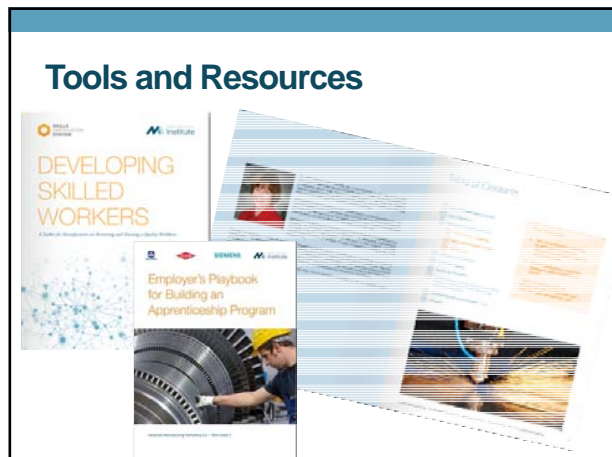
- In 2012, an advisory committee of manufacturers partnered with Cincinnati State to develop an entry level Machine Operator Training Program. Courses included machine shop math, mechanical plan reading, safety, SPC, mechanical machining and intro to CNC.
- In 2013, 10 incumbent workers enrolled and completed the Machine Operator 1 curriculum designed to lead to the National Institute for Metal Working Skills (NIMS) Certification.
- The total investment in the project was \$28,000.00 with PCW funding 50% and the employer funding 50%.

Return on Investment Calculator

- Small Manufacturing Company producing valves for the chemical, transportation equipment, and energy industries with \$40 million in annual revenues
- Local plant has 145 total employees with 87 working in production with an average loaded hourly salary of \$16.90
- Production turnover rate was 11% and it takes approximately 30 days to fill an open position

Advantages to being an M List School

Cost Savings:	
Partnership and certifications	
Hiring cost savings	\$ 3,778
Reduction in OJT	+\$ 68,640
Reduction in turnover/OJT	+\$114,400
Total Savings	= <u>\$186,818</u>
Total Investment	- \$ 28,000
True Return	= <u>\$158,818</u>
Return on Investment	567.2%



Contact Information

Brent Weil

Senior Vice President

The Manufacturing Institute

(202) 637-3134

E-mail: bweil@nam.org

www.themanufacturinginstitute.org

 @TheMfgInstitute

 @BrentWeil

CQI Activities for INAM Grant Priorities and Strategies

Priorities & Strategies	Elements	Year 1 FY 2012-2013		Year 2 FY 2013-2014		Year 3 FY 2014-2015		Follow Up CQI
		Completed	In Progress	Completed	In Progress	Completed	In Progress	
Priority 1.0	Create educational plans that provide a clear pathway and lattice to industry-recognized credentials in advanced manufacturing.							
Strategy 1.1	Develop educational plans outlining coursework and timelines.	August 2013			Minimal changes made		Completed	
Strategy 1.2	Develop a mechanism for awarding academic credit for prior learning.				Task Force leading this initiative		Completed: Presented at June 2014 Conference	
Priority 2.0	Implement programs along the career pathway and lattice that meet advanced manufacturing industry needs and result in industry-recognized credentials and/or associate degrees.							
Strategy 2.1	Offer bridge programs in technical skills.	June 2013		Summer 2014			Completed: Presented at October 2013 Conference	
Strategy 2.2	Offer programming leading to the National Career Readiness Certificate (NCRC).	June 2013		Summer 2014			Completed: Presented at October 2013 Conference	
Strategy 2.3	Enhance programming in areas of specialization certificate programs.	July 2013		Summer 2014			Work completed at end of summer 2015	
Strategy 2.4	Offer associate degree completion.	March 2013		Summer 2014			Work completed at end of summer 2015	
Priority 3.0	Develop online and technology-enabled learning by strategically aligning INAM programs with technology purchased by the Illinois Green Economy Network (IGEN), a first-round TAA awardee.							
Strategy 3.1	Engage in a partnership with IGEN in using National Training Education Resource (NTER) System.		Continuing conversation with IGEN	Summer 2014	Continuing conversation with IGEN		Work completed end of summer 2015	

CQI Activities for INAM Grant Priorities and Strategies

Priorities & Strategies	Elements	Year 1 FY 2012-2013		Year 2 FY 2013 - 2014		Year 3 FY 2014-2015		Follow Up CQI
		Completed	In Progress	Completed	In Progress	Completed	In Progress	
Priority 4.0	Develop partnerships with employers that include paid internships and on-the-job training opportunities in advanced manufacturing.							
Strategy 4.1	Engage employers to secure paid internships and on-the-job training.		Continuing conversation with partners		Continuing conversation with partners		Continuing conversation with partners	Summer 2016
Strategy 4.2	Conduct regular employer input and feedback sessions.		Continuing conversation with partners		Continuing conversation with partners		Continuing conversation with partners	Summer 2016
Priority 5.0	Provide placement services that connect students to available jobs in advanced manufacturing.							
Strategy 5.1	Develop a platform that provides job posting capabilities for employers and résumé posting for students.				Website launched April 2014		Website continuously updated	Summer 2016
Strategy 5.2	Enhance the image of advanced manufacturing.				Website launched April 2014		Website continuously updated	Summer 2016
Priority 6.0	Improve articulation of credit between two-year and four-year colleges to facilitate pursuit of additional education in advanced manufacturing.							
Strategy 6.1	Develop articulation agreements with four-year colleges and universities.		Working on multiple university partnerships		Signed MFG articulation agreements with 4 university partners		INAM colleges to sign individual articulation agreements	

1,000 Jobs Campaign

Speakers:

Haven Allen

Strategy Manager, Plan for
Economic Growth and Jobs
World Business Chicago

Loren Dinneen

Program Manager, Plan for
Economic Growth and Jobs
World Business Chicago

(PowerPoint presentations available at www.inam.net following the conference.)

Email: hallen@worldbusinesschicago.com Email: dinneen@worldbusinesschicago.com

1000 Jobs Campaign





PLAN FOR ECONOMIC GROWTH & JOBS

1,000 Jobs – INAM Overview

As of June 10, 2015

Confidential – Interim Pre-Decisional Information
Any use of this material without specific permission of World Business Chicago is strictly prohibited


1,000 Jobs is a program to place workers into 1,000 open manufacturing jobs



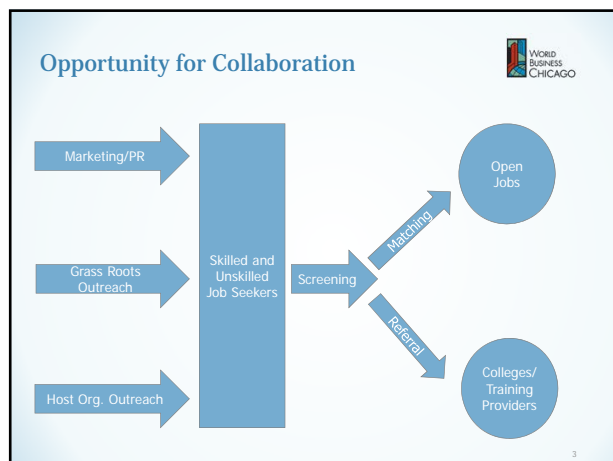
1 Awareness	2 Capacity	3 Coordination
Launch an awareness and outreach campaign to raise the profile of advanced manufacturing technologies and increase the number of job candidates	Add 5 Account Execs to existing workforce organizations to build capacity to match job seekers to jobs and training programs, with a third party program manager to evaluate	Drive job seekers to a centralized landing page to connect into workforce process seeded with at least 1,000 new manufacturing jobs

1,000 Jobs serves as a pilot to provide insight into what a workforce system supporting manufacturing should look like, informing wave 2 initiatives for system automation and high functioning workforce system partners

Metrics To-Date



# Jobs Placed	# Placed into Training	# of Job Seekers
160	108	672



1000 Jobs Campaign

Opportunity for Collaboration cont.



Opportunities

- Relationship with Program Staff
- On-Going Dialogue Regarding Program Offerings
- Student Engagement Opportunities

4

Interested in Partnering?



Please contact:

Loren Dinneen

Program Manager
 World Business Chicago
 177 N. State St. Suite 500 | Chicago, IL 60601
ldinneen@worldbusinesschicago.com
 P: 312.589.5775

5

Essential Stakeholders for Program Success



Partners				
Advisory Council: Workforce & Education	Manufacturers 	Nonprofits and workforce partners 	Education and training 	Business associations
Affiliate Organizations	Nonprofits and workforce partners 		Gov't agencies and workforce boards 	

6

World Business Chicago 1000 Jobs for Chicagoland Manufacturing *@WorldBizChicago 1000jobscampaign.com worldbusinesschicago.com #1KJobs*

1000 Jobs is a demand-driven workforce development program that will place workers in open advanced manufacturing positions. It is led by a consortium of 40 manufacturing industry leaders and has partnerships with dozens of additional organizations. It will place 1,000 qualified job seekers on career pathways in manufacturing, and link residents who need additional skills to training and apprenticeship programs resulting in fulltime employment.

1000 Jobs addresses labor market failures that have contributed to tens of thousands of unfilled manufacturing jobs in Chicagoland by:

- Raise awareness of the benefits of manufacturing careers
- Increase the capacity within the workforce development system
- Drive coordination to more efficiently connect job seekers with open positions, training programs and existing public resources through our branded web portal that will connect job seekers employment opportunities, streamlining the recruitment process for participating employers.

Manufacturers have identified that there are not enough skilled workers to meet current demand in advanced manufacturing. Facts:

- There are an estimated 30 – 50,000 open manufacturing jobs in the Chicagoland area
- According to the National Association of Manufacturers, one out of every six private-sector jobs in the US is in manufacturing
- 1000 Jobs has the ability to help grow the economy by \$400 million
- There are over 13,000 small and medium manufacturers operating in Chicago
- More than 100 manufacturing firms have located or expanded in the City since 2011.
- Metropolitan Chicago's manufacturing cluster employs 580,000 workers, which is the second largest cluster in the nation.

Manufacturing jobs provide fulfilling employment, strong benefits and good pay and Chicagoland continues to be one of the country's major manufacturing hubs. Facts:

- On average, manufacturing industry jobs pay wages that are 27% higher compared to other industries
- Job-ready training can be completed in as little as 12 weeks. Associate degrees in manufacturing programs can be completed for less than \$10,000
- Jobs in the Chicago region can provide workers with full-benefits and potential long-term earning wages that average more than \$70,000
- All 1000 Jobs campaign positions are full time

Companies get involved:

- Visit 1000JobsCampaign.com for more information
- Fill open positions with a 1000 Jobs representative
- Host an open house for potential employees
- Advocate for the campaign and in support of Chicagoland as an advanced manufacturing region of excellence

Job seekers get involved:

- Visit 1000JobsCampaign.com to:
- Search open positions
 - Request job or training placement assistance
 - View and attend upcoming events for more information on careers in manufacturing

Training and community partners get involved:

- Submit an industry event via 1000JobsCampaign.com
- Refer job seekers or those looking for training opportunities to the campaign
- Ask about 1000 Jobs can support your current activities

World Business Chicago 1000 Jobs for Chicagoland Manufacturing

@WorldBizChicago 1000jobscampaign.com worldbusinesschicago.com #1KJobs

- Cook County
- DeKalb County
- DuPage County
- Kane County
- Lake County
- McHenry County
- Will County

The seven-county region accounts for more than 13,000 manufacturing companies that employ over 400,000 workers. According to the Chicago Metropolitan Agency for Planning (CMAP) the region's manufacturing industry:

- Provides wages 27 percent higher than the regional average
- Accounts for 85 percent of all private R&D
- Generates over \$65B annually; second largest segment of the regional economy
- Produces two-thirds of the region's exports

- Machinery, fabricated metals
- Food /beverage
- Furniture / apparel
- Chemicals / plastics / rubber/primary metals
- Paper /printing
- Computer / electronics
- Pharma/medical supply

Chicago region's nine primary manufacturing industries (in order by number of jobs). Top jobs in demand:

- CNC operator/setup and programmer
- Industrial machinery mechanic
- Tool and die maker
- Welder
- Machinist
- Team assembler

The 1,000 Jobs program will work in concert with the Digital Manufacturing and Design Innovation Institute (DMDII) to educate manufacturers, industry partners and other interested parties on digital manufacturing definitions and skill sets:

- Engagement with industry partners and through open houses and training seminars with the existing network
- 1000 Jobs host organizations will receive digital manufacturing training and reference materials to educate both employers and potential employees.

1000 Jobs community-based, or host, organizations provide training and job placement assistance for the underemployed and unemployed, working to get residents into full-time manufacturing positions.

- Bethel New Life
- ManufacturingWorks (Institute Del Progreso Latino)
- ICNC - Kinzie Industrial Development Corporation
- OAI, Inc
- The Safer Foundation

1000 Jobs Host Organizations

BETHEL NEW LIFE, WEST GARFIELD PARK

Bethel offers an Advanced Manufacturing Training (AMT) program, in collaboration with World Business Chicago and The Technology Manufacturing Association (TMA). This strategic collaboration promises to strengthen the Chicagoland economy, address the national skills gap, and give Chicago's West Side residents access to good paying jobs in advanced manufacturing. Bethel also offers extensive entrepreneurship-training program for men and women who would like to start their own businesses.

ManufacturingWorks (INSTITUTO DEL PROGRESO LATINO), SOUTHWEST SIDE OF CHICAGO

ManufacturingWorks, a collaboration between Instituto, the City of Chicago Mayor's office, community based organizations, workforce groups and area technical training. These partners refer candidates to ManufacturingWorks for assessment and testing to be screened for employment.

KINZIE INDUSTRIAL DEVELOPMENT CORPORATION (ICNC), NEAR WEST SIDE CHICAGO

Provides services to strengthen 2,000 companies on Chicago's Near West Side and provides space and business development services to over 110 small business tenants in its incubator. ICNC has many business assistance programs that help entrepreneurs in the areas of business planning, debt and equity financing, industrial retention, financial planning and more. ICNC also helps companies secure grant money, offer on-the-job training reimbursement and business advocacy.

OAI (Opportunity Advancement Innovation), INC., SOUTH SUBURBS

The mission of OAI is to provide training and education to enhance the manufacturing industry in the Millennium Reserve / Calumet Region. They work to increase employer investment in the region, promote careers in manufacturing and meet manufacturers' needs by providing consultative services and training resources, which will serve the needs of both the businesses and the unemployed.

SAFER FOUNDATION, CITY OF CHICAGO

The mission of the Safer Foundation is to reduce the rate of recidivism through a variety of services that help people with criminal records become employed and upstanding, law-abiding citizens. Safer Foundation has provided employment, educational and supportive services for people with a criminal record. The Safer Foundation offers a variety of employment services training programs, including the Transitional Employment Program, which offers people with a criminal record a way to learn the customs and routines of the workplace, acquire job skills, establish an employment record and generate employer references to enhance their competitiveness in the job market.



Networking and Ice Cream Social



Data Visualization for Marketing Successes

Speaker:

Dawn Coleman

Director, The Center for Applied Research
Central Piedmont Community College

(PowerPoint presentations available at www.inam.net following the conference.)

Email: Dawn.Coleman@cpcc.edu

Data Visualization

for Marketing Successes

Dawn Coleman

Director, Center for Applied Research
ColemanEvaluation@outlook.com

Why should we care about data visualization?

There's too much bad data visualization.
We need to get the right information out to the right people in the right way.
You need to be able to tell your program's story effectively with data.

Best practices in data viz take advantage of how our brains process information.

Iconic memory (preattentive processing)
Immediate reaction to visual stimuli
Detecting color, location, length/height
Working memory (attentive processing)
Visual info moves into working memory
Only 3-4 chunks of info can be stored at one time
Long-term memory
The goal is to trigger preattentive processing while also accepting the limits of working memory

Choose fonts wisely

Serif (narrative text) vs. Sans Serif (everything else)
Avoid italics
Consider using a narrow or condensed font in tables and graphs

Use color effectively

Color should be used to enlighten not to entertain
Use it consistently and sparingly
Things to consider: printing in black and white, color blindness (10% of men)

NOTES

Simplify tables

Think about your data:ink ratio
Remove unnecessary ink (shading, borders)
Use white space effectively
Emphasize your story with color

Use more graphs

Consider the hierarchy of graphical perception

1. Position on a scale
2. Length
3. Direction
4. Angle
5. Area
6. Volume
7. Curvature

What does this mean for graphing?

We're really bad at reading angle, area, and curvature so avoid pie graphs and 3D graphs.

We *are* good at processing length and direction so choose bar and column charts to compare things and report survey responses and line graphs to show change over time.

Consider other graphing options:

Dot plots
Diverging bars
Slope graphs

Best practices for PowerPoint

Only include one or two thoughts per slide
Use font size of at least 24
When in doubt, use a sans serif font
Check your slide sorter view (if you can read it, your audience will be able to read it)
Don't use font effects and keep animations to a minimum
The goal is communication, not artistry (though you can have both)

Other creative ways to communicate data

Scratch off graphs
Findings cookies
Chocolate labels
Infographics
Data placemats

NOTES

Helpful Resources

Some good data visualization blogs

Stephanie Evergreen – www.stephanieevergreen.com/blog

Stephen Few – www.perceptualedge.com

Ann Emery – www.annkemery.com/blog

A Fun Graph Design Quiz

<http://www.perceptualedge.com/files/GraphDesignIQ.html>

Diverging Stacked Bar Charts

<http://stephanieevergreen.com/diverging-stacked-bars/>

<http://annkemery.com/portfolio/diverging-stacked/>

Dot Plots

<http://stephanieevergreen.com/easy-dot-plots-in-excel/>

<http://annkemery.com/portfolio/dumbbell-dot/>

Slope Graphs

<http://www.storytellingwithdata.com/2013/11/slopegraph-template.html>

<http://annkemery.com/portfolio/slope/>

Scratch-Off Graphs

<http://stephanieevergreen.com/scratch-off-graphs/>

Chocolate Labels

[http://aea365.org/blog/susan-kistler-on-innovative-reporting-part-i-the-data-divas-](http://aea365.org/blog/susan-kistler-on-innovative-reporting-part-i-the-data-divas-chocolate-)

[box/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed:+aea365+%28AEA365%29](http://aea365.org/blog/susan-kistler-on-innovative-reporting-part-i-the-data-divas-chocolate-box/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed:+aea365+%28AEA365%29)

Findings Cookies

<http://stephanieevergreen.com/findings-cookies/>

Data Placemats

http://www.slideshare.net/InnoNet_Eval/data-placemats-share?next_slideshow=1

Wrap – Up

Questions & Answers

Thank you and have a good evening.

Day Two

Disruptive Innovation in Community Colleges

Speaker:

Michelle Weise, Ph.D.

Senior Research Fellow on Higher Education

Clayton Christensen Institute

New Position: Executive Director of the Innovation Lab

Southern New Hampshire University



Michelle Weise

Michelle Weise, Ph.D., helps institutions and their leaders navigate the dynamics of disruption across a rapidly changing academic terrain.

Weise, the newly appointed Executive Director of the Innovation Lab at Southern New Hampshire University, specializes in disruptive innovation in higher education. Her work informs policymakers, community leaders, academic administrators and innovators about how the theories of disruption clarify our understanding of the industry's transformation. Weise's seminal book – "[Hire Education: Mastery, Modularization, and the Workforce Revolution](#)," co-authored with Clayton Christensen – unveils the tectonic shifts to come, and discusses how online competency-based education will revolutionize the workforce and disrupt higher education.

Beyond competency-based learning, Weise's research delves into student-learning outcomes, assessments, and public-private partnerships. Her voice has been featured in all major education publications, including the *New England Journal of Higher Education*, *The Chronicle of Higher Education*, *Inside Higher Ed*, as well as top-tier business outlets, such as *Harvard Business Review*, *The Economist*, *Bloomberg BusinessWeek* and *USA Today*.

Prior to joining the Institute, Weise was vice president of Academic Affairs for Fidelis Education. She has also held instructional positions, serving as a professor at Skidmore College and an instructor at Stanford University. A former Fulbright Scholar, Weise is a graduate of Harvard University; she earned her master's and doctorate degrees from Stanford University.

AM Short Break

Move to Room 214 Second Floor

President's Advisory Committee Meeting

Introductions and Updates

(Please see agenda Day Two)

Review of the Year 2 Evaluation

Speaker:

Brad Chaney, Ph.D.

Senior Study Director

Westat

Evaluation Team: Paul T. Bucci PhD LLC

(PowerPoint presentations available at www.inam.net following the conference.)

Year Two Conclusions and Recommendations

5

5.1 Conclusions

After a first year that was devoted largely to the design of iNAM, the second year was the first full year of implementation. As only the first year of implementation, it is still too early to examine many of the intended outcomes of the consortium, particularly with regard to the impact of the program on employment outcomes. Indeed, the consortium continues to develop, with an expectation that later years will show increased enrollments, increased use of prior learning assessments, and the development of new programs. iNAM is also considering adding an extra term of implementation in fall 2015 rather than ceasing grant operations after the end of the third year of the grant; this would allow additional changes due to the grant.

Some aspects of iNAM show signs of initial or partial success:

- A large number of students have enrolled in iNAM, though it is too early to judge whether the original enrollment projections will be met.
- College members have often worked cooperatively, consulting with other colleges in the consortium to develop strategies, programs, and individual courses.
- Colleges have bought new equipment, expanding their capacities for training.
- Colleges have given greater attention to the earning of outside credentials, both strengthening their programs and increasing the marketability of their graduates/completers.
- At some colleges, largely moribund programs have been revived.
- Essentially all iNAM courses were revised in some way, with the changes ranging from minor tweaks to the creation of entirely new courses. However, some faculty reported they made no changes at all to their courses; these faculty reported that their courses already were aligned with the learning objectives prior to receiving the iNAM grant.
- The colleges have a mixed level of company engagement, with some colleges getting high involvement from local companies and others getting only low or medium levels of involvement. iNAM was not always the key factor in company involvement; sometimes the level of involvement predated iNAM.
- The courses associated with iNAM were aligned with national standards (such as MSSC), and most felt this to be an improvement, though some faculty felt these changes made the courses less well aligned with local needs.
- A large majority of students either completed a certificate or were retained in higher education, though the length of time for measuring retention was limited.

At the same time, challenges remain and some intended tasks have not yet been completed.

- The planned use of prior learning assessments to help students accelerate their completion of iNAM programs has been carried out in only a few colleges and affected only a few students. (There is evidence of an increase in the third year of the grant, but that is beyond the scope of this report.)
- The intended use of education plans to guide students and help ensure program completion has been implemented unevenly, in some cases amounting more to a data collection effort supporting the evaluation than to a program directed at helping the students. Some faculty expressed the need for better assessment of students' abilities and interests, along with local economic conditions, in order to better assist the students in making good education choices.
- Though much equipment has been purchased, the purchases have been behind schedule based on those invoices that have currently been submitted, possibly affecting the consortium's ability to meet its goals and also affecting current participants' ability to benefit from the purchases.
- Students often and faculty sometimes have been unaware of iNAM. It is not necessary for students to be aware of iNAM in order to benefit from it, but this lack of awareness suggests that some of the planned consortium-wide benefits, such as paying in-district tuition throughout the consortium, have received little attention or use. It also suggests that faculty have not always made use of the consortium-provided resources, and that they may not have taken the consortium into account when designing and teaching their courses.
- Some colleges have faced high turnover, with multiple project directors, data stewards, or education planners in a single year, resulting in less familiarity with iNAM.
- While the colleges had an open-access approach to student enrollment, making iNAM programs available to dislocated workers and veterans, colleges varied in their outreach to such groups and overall there was relatively low representation of these groups among their iNAM students.
- There has been only a limited use of internships (9 students of 122 completing the exit survey). This appears primarily to be due to local business conditions, such as a shortage of positions and a reluctance to accept financial responsibility for costs such as health insurance and workman's compensation.
- Faculty buy-in to the purposes and value of the consortium was mixed, with some not understanding the purposes of the consortium and not perceiving significant benefits.

It should also be noted that the colleges varied considerably in their starting points when the grant began, and that these variations affected the degree to which iNAM made a difference. Those colleges that already started out with strong programs had less need for new equipment or curricular change, while others had considerable need. Colleges also varied in their implementation of the program, including concerning which programs they offered through iNAM, the number of courses offered in a particular program, and the use that colleges made of Education Plans.

5.2 Recommendations

- As noted, some of the initial goals of iNAM have been at best only partially realized. These deserve additional attention.
 - iNAM should seek to make greater use of prior learning assessments to help students to accelerate their program completion. Most colleges had not yet developed well-designed plans for providing credit for prior learning and may need help from the consortium in creating such plans. Part of the issue is also faculty reluctance to accept that other sources of experience were sufficient, suggesting a possible need for clear criteria for judging the adequacy of prior preparation. Unfortunately, because so few students currently have received credits through PLAs, this evaluation may not have adequate data to assess whether students receiving such credits have equivalent job success as compared with other students, so other means of promoting faculty buy-in may be needed.
 - Education planners need both the resources and vision to make their role one that provides personalized guidance to students on students' strengths and weaknesses, career prospects, and appropriate education strategies. Currently, some education planners appear to view the process primarily as a data collection tool, and others have limited time to maintain contacts with the iNAM students.
 - The use of internships at local businesses seems a valuable tool for providing students with practical experience, facilitating graduates' later chances of being hired by those or other businesses, and increasing local businesses' connections with iNAM colleges. Currently, the use of internships appears to be limited by the state of the economy. Possibly by enlarging the number of businesses involved in the internship program or by working cooperatively with businesses to lower the cost of accepting interns, iNAM could increase the number of interns.
 - As of the end of year 2, iNAM has had relatively little participation by TAA-eligible workers or veterans. Since One-Stop Career Centers have not had the funding to have a substantial role in referring such personnel, iNAM might seek other avenues of outreach to these groups.
- While colleges may be reluctant to cede authority to another organization, they often welcome the opportunity to share with colleagues facing similar situations. Thus, iNAM should make the opportunity for sharing a primary goal for leading the institutions.
- Some colleges/departments may need additional assistance in knowing how to use funding for equipment effectively. Though some colleges have found the funding to be quite valuable, the overall level of purchases is behind schedule, and some iNAM faculty indicated they were frustrated that the budgets might not allow sufficient flexibility to meet their equipment needs.
- The focus on enabling students to earn credentials and satisfy national standards is useful, but iNAM should be careful not to prevent customization to meet the needs of local employers. Also, employers often are unaware of the national standards, so that helping students satisfy the standards may have limited benefit unless there is also an effort to educate employers about the value of the standards.

- Institutions wishing to replicate this program should allow considerable time for planning when setting up a program like this, particularly if there is a need for formal changes such as the approval of new curricula. They also might look for more ways to incorporate faculty into the original planning and proposal process, both to better understand faculty needs and to increase faculty buy-in and understanding of the program.
- The active involvement of the iNAM project director, including visits at each campus, appears to have been important in creating a common understanding of iNAM, and in encouraging the colleges to implement iNAM program features. Such a role should be anticipated in other consortiums seeking to implement similar programs.

Utilizing INAM Innovations at your College

Speaker:

Paul Bucci, PhD
President
Evaluation Team: Paul T. Bucci PhD LLC

(PowerPoint presentations available at www.inam.net following the conference.)

**Consortium Meeting Travel
Reimbursement**

Meeting Date _____

<p>Submit To: inam@harpercollege.edu Grant Director - Dr. Rebecca Lake William Rainey Harper College Illinois Network for Advanced Manufacturing 1200 West Algonquin Road Palatine, IL 60067-7398 TC-23795-12-60-A-17</p>	<p>From Consortium Member: College _____ _____ Contact Person: _____ Date Submitted: _____ Email _____ Phone _____ _____</p>
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Attendee Name		\$ Amount	
TOTAL			

Instructions:

Harper College will reimburse travel costs related to entire iNAM Consortium Meetings and submit payment to your college. Individuals should request reimbursement directly from your college.

Please submit this form along with receipts for any individuals who attended the Consortium meeting. Do not charge the travel expense to the TAACCCT Grant fund at your college.