STAMP
Scaling Transformative Advanced Manufacturing Pathways

Showcase
Thursday, May 9, 2024, 3:30–5 p.m.
Welcome

Please add your name, title, and organization to the chat!
Agenda

• Introduction
• Community Spotlights
• STAMP Data Dashboard
• College & Career Pathway Endorsements Update
• IMA Scholarship

● This meeting is being recorded
● The slides, recording, and resources will be shared
STAMP Goals

• Increase secondary enrollment in manufacturing pathways, particularly of underrepresented students

• Increase dual credit offerings and enrollments in manufacturing

• Increase the number of students who complete a manufacturing pathway, earning a College & Career Pathway Endorsement and industry credentials

• Increase matriculation into postsecondary manufacturing programs and the workforce

• Using state- and local-level data, analyze college and career pathways-related outcomes of manufacturing pathway students
Arc of Engagement:
Year 1

September: Community of Practice 1
Equity-Centered Pathway Design and Implementation

October–January: Office Hours, Technical Assistance Sessions (2), Homework
Mapping current manufacturing pathways, identifying gaps and equity barriers, designing strategies to address gaps/barriers

February: Community of Practice 2
Work-based learning, student engagement, pathway data review

March–April: Office Hours, TA, Homework
Developing work-based learning templates, student engagement

May: Community of Practice 3
Dual credit, CCPE currency, student engagement

June: Office Hours, Homework
Finalizing maps, templates

September: Community of Practice 1
Equity-Centered Pathway Design and Implementation
Year 2

★ July: Community of Practice 4
Virtual career development experiences, advising, dashboard update

★ August: Office Hours, TA, Homework
Program updates

★ September: Community of Practice 5
Currency plans, postsecondary transitional supports, data dashboards

★ October–January Office Hours, TA, Homework
Finalize currency plan, data uploads

★ February: Join I-WIN and STAMP Convening
Work-based learning

★ March–April: Office Hours, Homework
Final submissions of all plans

★ May: Community of Practice 7
Celebration!
Community Spotlights

- Chicago
- Elgin / Northern Kane County
- Northwest Suburbs
- Peoria
- Quad Cities
- Rockford & Belvidere
- Sauk Valley
- Western Cook County
Spotlight: Chicago

Bernadette Limos
Director, Chicago Roadmap
blimos@cps.edu

Tameka Coffie
Adv. Manufacturing Curriculum Specialist
tlcoffie@cps.edu
Introduction

• Heavy focus on submission of the College and Career Pathway Endorsement Framework - Manufacturing Pathway Application
  • Strategic Partnerships
    • Renaissance Manufacturing
    • Illinois Manufacturing Association
  • Audit on Supplies/Equipment/Vendors
  • Revised Advanced Manufacturing Curriculum
  • Increased DC access
  • Strengthened Postsecondary Partnerships
    • Spotlight Days
Lessons Learned

• CCPE Application
  • Details, details, details!
    • For example: more task-based rather than problem-based, final product/presentation, how students would work collaboratively

• Quality Equipment is Essential
  • Impacts Learning and Team Based Challenges
  • Costly
What’s Next

- Expanding the pathway to other schools (1-2)
- Summer training for instructors
- Increase certifications for students and instructors
Spotlight: Elgin/Northern Kane County

Terry Stroh - Director
Northern Kane County Regional Voc. Sys.

Nancy Coleman - Director
Alignment Collaborative for Education

Cathy Taylor, PhD - Dean, CTE
Elgin Community College
Student Engagement in Manufacturing

Utilizing the Kids College Program to build interest in the manufacturing programs:

- Challenge/opportunity - Growing the number of students engaged in our Manufacturing Program
- Incoming 9th grade students
- Partners
  - Northern Kane County Regional Vocational System
  - Elgin Community College
- Summer
Lessons Learned

• Communication is KEY!
• Marketing to the right students
  • Students looking to transition directly to the workforce
  • Students looking to study engineering
• Set up the program to allow for seats to be representative of the districts involved
  • Do not allow one district to take over
• There will be more interest than you think
Increasing WBL in Manufacturing

Over the past three years, we have been working to increase the WBL opportunities within our region:

• Challenge/opportunity - Increasing the number of WBL opportunities for our Manufacturing Program
• All High School students currently enrolled in manufacturing or engineering classes
• Partners
  • Northern Kane County Regional Vocational System
  • Elgin Community College
  • D300, D301 and U-46
• Summer - June/July
Lessons Learned

• Communication is KEY!
• Make sure that everyone can access documents
  • Make sure that students utilize a personal email account
  • Some districts do not allow for outside emails
• Resume building workshops are key in teaching students how to sell themselves and their skills.
What’s Next

• Continue to build out pathways documents for students and families which include summer internship opportunities.
• Working to increase the number of industry partners.
• We will look to hire more staff in the future depending on the number of students that are interested.
• Thank you to our industry partners!!
Spotlight: Northwest Suburbs

Township High School District 211
Michele Napier
Director of College and Career Readiness
mnapier@d211.org

Northwest Educational Council for Student Success
District 211, District 214, D220, Harper College
Nancy Awdziejczyk
nancy.awdziejczyk@d214.org
D211 Manufacturing

- Robust Manufacturing Pathway
  - 340 students enrolled in the pathway SY24
  - 18 credit hours with Harper College
  - NIMS Certifications
  - Industry Partnerships
  - Senior Job Fair

- 12 credits embedded in General Certificate Manufacturing Summer Concurrent Enrollment MFT134 / WLD210

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFT 106</td>
<td>Machining Processes I</td>
</tr>
<tr>
<td>MFT 120</td>
<td>Machining Processes II</td>
</tr>
<tr>
<td>MFT 121</td>
<td>Machining Processes III</td>
</tr>
<tr>
<td>MFT 134</td>
<td>Print Reading for Industry</td>
</tr>
<tr>
<td>WLD 110</td>
<td>Welding I</td>
</tr>
<tr>
<td>WLD 210</td>
<td>Welding II</td>
</tr>
</tbody>
</table>
Industry Partnerships

- **Harper College**
  - Classroom visits
  - Curriculum alignment
  - Industry Best Practices & Training

- **GCamp**
  - Foundational partner for support and directions in the manufacturing.

- **Advisory Board** in conjunction with Harper College - 4 times each year.

- **Team Based Challenges**
  - Local Business Partnerships
  - TMA
### College and Career Pathway Endorsement

**TRACKING ISBE CCPE**

#### Summary of Students

<table>
<thead>
<tr>
<th>SY2024 Pathway Endorsements</th>
<th>Pathway Endorsement</th>
<th>D211 Concentration</th>
<th>Total Met</th>
<th>Total Will Meet</th>
<th>Total Not Met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Finance and Business Services</td>
<td>Culinary Arts</td>
<td>13</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Health Sciences and Technology</td>
<td>Nursing</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Human and Public Services</td>
<td>Early Childhood Education</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Secondary Education</td>
<td>Elementary Education</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Manufacturing, Engineering, Technology, and Trades</td>
<td>Manufacturing</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

In the below table, clicking on a student displays the statuses of their relevant courses.

#### Status of CCPE Criteria

- **Status**: Met, Expected, Not Met, Not Taken (Courses Only)

<table>
<thead>
<tr>
<th>Student ID</th>
<th>Student Name</th>
<th>Current SY</th>
<th>Grade</th>
<th>School</th>
<th>Pathway Endorsement</th>
<th>Career Cluster</th>
<th>D211 Concentration</th>
<th>SY Earned</th>
<th>6 Hrs College Credit</th>
<th>2 Yr Sec Coursework</th>
<th>Team-Based Challenges</th>
<th>Work-Based Learning</th>
<th>Reading College Ready</th>
<th>Math College Ready</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2024</td>
<td>12</td>
<td>PHS</td>
<td>Manufacturing, Engineering, Technology, and Trades</td>
<td>Manufacturing</td>
<td>2024</td>
<td>T63401</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Areas of Growth

Career Development Experiences

- **Development of Systems**
  - Paid Opportunities
  - Course Credit
  - External and Internal Partnerships
  - Equity and Opportunities
  - Teacher FTE - WBL Coordinator

- **Early Pathway Exploration**
  - Coursework lead to Career
  - College Ready English and Math
Next Steps

• Expansion of Career Development Experiences
  • Industry Partnerships
  • Student-based Enterprise Opportunities
    • Equity lens of opportunity

• Implementation of Welding
  • WLD110 - Dual Credit Harper College

• Outreach of Students
  • Non-traditional populations and historically underrepresented students
Spotlight: GCAMP

Dawn Curran
Executive Director
dcurran@gcamp.org
Building the Next Generation of Manufacturers

- Over the next decade, the United States will need to fill nearly 3.5 million manufacturing jobs. 2 million of these jobs may go unfilled due to a lack of skilled workers.

- Currently, women make up 29.3% of the manufacturing workforce.

How do we bring more people, particularly girls, into manufacturing pathways to fill the workforce gap?
Igniting Manufacturing Interest

- Start young – elementary/middle school
- Expose students to manufacturing through:
  - Real-world experiences
  - Manufacturing tours
  - Classroom presentations from industry professionals
  - Job shadowing/WBL
  - Hands-on activities
- Rinse & Repeat
Reaching the Tipping Point

The final push to get a student to choose a manufacturing pathway program often comes from the right person delivering the right message.

**Right person:**

- Current program participant or alumni of program
- Someone of the same gender, ethnicity/race, background
## Reaching the Tipping Point - Right Message

Top factors influencing college-age women and men to choose a manufacturing pathway.

<table>
<thead>
<tr>
<th>WOMEN</th>
<th>MEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Job security</td>
<td>1. Job security</td>
</tr>
<tr>
<td>2. The pay is good</td>
<td>2. The pay is good</td>
</tr>
<tr>
<td>3. Manufacturing jobs allow me to be creative</td>
<td>3. Manufacturing jobs are well-respected</td>
</tr>
<tr>
<td>TIE 4. Manufacturing is a field that makes the world better for others</td>
<td>4. Manufacturing jobs allow me to be creative</td>
</tr>
<tr>
<td>TIE 4. Manufacturing jobs are well-respected</td>
<td>5. The job is very team-oriented</td>
</tr>
</tbody>
</table>

However, none of the messages trended towards “extremely influential” which indicates that a variety of messages are required for recruitment.
Thank you!

For more information on GCAMP visit gcamp.org or find us on social media.
Spotlight: Peoria

Andrew Rice
Teacher, Manual High School
Email: andrew.rice@psd150.org

Dr. Michelle Hassan
Assistant Superintendent for School Leadership
Email: michelle.hassan@psd150.org
Manual Manufacturing

Our goal was to increase the number of students in our manufacturing pathway.

Solutions
- More advertising with students
- More publicity about the program including a signing day that was on the news
- Added a teacher due to high enrollment

Targeted Students
- Students with a desire for hands on learning and needing career goal/skills.
- Total Students: 96 (Up from 92)
- Student demographics include: 9 white, 67 Black, 15 Hispanic; 11 females and 85 males

Business Partner
- Caterpillar, Inc.
- Partnership begins with freshmen and sophomore students using equipment and supplies provided by Caterpillar and then senior year, students apply for a year long paid internship in the afternoons of the school day.

Education Partner - PERFECT/Chris Kendall & STAMP Program
Lessons Learned

• We needed to add additional courses
• Student preparation for internships was more than skill development
• Students need on-the-job monitoring from home high school
• District must provide transportation
Caitlyn - Goes against the family
Darrius - When foundational learning pays off
Sterling - Poverty to prosperity
Areli - Engineering college
Coming Up…

• 23 students will be eligible for internship in the fall, up from 15

• For students not accepted into the Caterpillar program, identification of alternative business placements will occur
Spotlight: Quad Cities

Dr. Matthew DeBaene
Assistant Superintendent for Secondary T&L
mdebaene@molineschools.org
Introduction

Our Journey...Our Start

• Aging labs
• Limited partners
• Limited opportunities
• Limited understanding of student and industry interest
• High interest and support from staff, board, and community
• Incredible growth and support
Lessons Learned

- Donors
- Partners
- Student interest
- Deeper understanding
- Redefining what a pathway can be
- Supporting individuals as well as group
- Support of community college
  (Thank you Black Hawk College!!!!)
What’s Next

- Variety of partners
- Great experiences for partners
- Solid structure
- Replicated in different areas
- Tool and Die, Cyber Security, CNA and beyond
Spotlight: Rockford

Jessica Hayes,  
Work Based Learning Coordinator

Bridget French,  
Executive Director,  
College & Career Readiness
STAMP Internships

• Target students: Students enrolled in the manufacturing pathway
• STAMP funds were issued to 2 Sites hosting 6 students during the Summer
  • Modern Advanced Manufacturing
  • Jerhen Industries
• The initial Internships happened over the summer. 2 Students continued through the school year and one student got employed during the school year
STAMP Internships

- Students applied through an application process. They applied through a google form and then were selected by the site locations to interview on site.
- Students got internship credits and pay
- Students were offered full time employment and paid certifications/college education
Lessons Learned

• Age barriers under 18 in the Manufacturing sector.
• Student interest, finding more students to apply.
• Transportation barriers for student attendance to internships.
What’s Next

• We plan to add more locations for internships for students.
• We will offer internships for school credit during the school year.
• Challenge is finding locations to host students during the summer for paid internships under the age of 18.
Spotlight: Sauk Valley

Janis Jones
CCR Facilitator, Sauk Valley Community College
janis.a.jones@svcc.edu

Heather Waninger
Pathway Navigator, ROE47
hwaninger@roe47.org
Empathy Interviews

Two challenges were identified:

• Lack of females in the manufacturing field (recruitment)
• Missing social capital for women to connect with industry partners

Process:

• Gathered names of females currently taking courses in the manufacturing field at local high schools, Whiteside Area Career Center, Sauk Valley Community College
• Set up time to chat with willing participants to discover
  • What motivated them to take the class
  • Did they see themselves continuing in a manufacturing path
  • What were some of the barriers they encountered as a female
  • What would encourage other females to enter the manufacturing pathway?
Interview Takeaways

CAREER EXPLORATION COUNTS

- Target females early for career exploration
- Hands-on exploration essential
- Tours of “cool factories to work at” isn’t enough
- Connect women in training with industry professionals that reflect their diversity
- Assist counselors in bucking the societal norms that manufacturing is a man’s job
A Plan of Attack

NONATTENDANCE DAY EVENT
● Host an event on campus for 8th grade girls to explore manufacturing
● Have current women working in the field available to interact with students

CTE PROMOTION
● Add to 8th grade career exploration event an opportunity for students to see the industrial area before registering for classes in the Spring
● CTE night for 9th & 10th graders with hands on experience at Sauk, highlighting manufacturing and all CTE areas on campus

MANUFACTURING LEADERS OF TOMORROW
● Yearly luncheon connecting manufacturing students with industry professionals with emphasis on having women in the field at the table
Spotlight: Western Cook County

Julia Wicklund
Ridgewood High School
Business Educator & Internship Coordinator
(708) 456-4242
Overview of Technology Manufacturing

WHY: Norridge/Harwood Heights has a lot of Manufacturing. Our students want this pathway.

WHO: QCC, Manor Tool, Technetics, Lexco, Automatic Precision AND Technology Manufacturing Association (TMA)

WHICH STUDENTS: SENIORS who may or may not want to go to college. Everything from SPED students to students that want to go into engineering.

WHEN: TMA Fall Semester, Interviews in January, February--start internships (60 hours minimum)
What I Learned During Implementation

• Explain Course in Junior Class Meeting
• Meeting with Parents in May to explain commitment
• Meet with students the first week of school
• Provide transportation to TMA
• Start TMA 1 week into the semester.
• Softskillsaha training helps
• Practice interviews help
• Some worksites have more “hoops” than others
• Do resumes in September, update in December
• Contact all previous internship sites end of November.
• Challenges: schedule, grades, placing students
Goals and the Future

- We have 10 students on the books for next year.
- We are hoping to add another site to our list of internships.
- Our goal is to have them stay at the internship sites for further employment.
- Internship sites sometimes offer to pay for future TMA training.
- Fix our schedule at RHS for stability in scheduling students outside of the building. I’ll explain!
STAMP Dashboard

edsystemsniu.org/stamp-dashboard/
STAMP Dashboard Overview

The STAMP data dashboard was created to track students who took a manufacturing course in the 2022–23 school year, and can answer the following questions:

- Where do these students come from? (by region and by district)
- What demographic information can we know about these students?
- How many of these students earned an industry credential?
- How many of these students have high needs as a result of facing low-income barriers?
- What do we know about students taking specific manufacturing programs?
A few quick facts about the data:

- **4,516** total students served through STAMP as of June 2023.
- **500** of those students earned an industry credential.
- **2,606** of those students have “high needs,” representing **58%** of the sample population. Students with high needs are defined as students having any one of the following characteristics:
  - student is listed as free and reduced lunch or homeless in ISBE database
  - student’s home or school address is in a Qualified Census Tract
  - student’s home or school address is in a Disproportionately Impacted Area
College & Career Pathway Endorsements Update

District Approvals + Earner Projections
Pathway Endorsements Statewide

Since 2017, EdSystems has sought out districts willing to implement Illinois’ innovative College and Career Pathway Endorsements system. EdSystems worked with ISBE to create the district pathway approval process and rulemaking processes.

There are now 220+ school districts seeking to implement Endorsements.

- Urban, suburban, and rural
- Traditional, CBE, CTE, and pathway districts

1,072 students in the Class of 2023 earned Endorsements.

>> Recent blog post highlighting CCPE progress
Pathways Framework: College, Career and Life Ready

**Foundational Skills for All Careers**
- General employability and entrepreneurial skills embedded in high school experience
- Students learn about the world of work and to work through a robust work-based learning continuum and problem-based learning

**Accelerated Towards a Career Area**
- Students are prepared simultaneously for access an entry-level job within the industry and/or a postsecondary major due to emphasis on career-focused early college coursework
- WBL experiences enhance preparation for and potential interest in the industry sector
- Courses go beyond traditional CTE and industry credentials

**Academically Ready for College**
- Students are prepared to succeed in college-level coursework, including core academic courses
- Required readiness for college-level placement in math and English (in collaboration with local community college)
Endorsement: District Approvals and Students

2023
- 1,072 students earned a CCPE statewide in all pathway areas
- 84 students in manufacturing, engineering, technology and trades (7.8%)
- 11 school districts authorized
- 69% came from a STAMP funded partnership and district.

2024
- All STAMP districts (20) have ISBE approval or applied & are awaiting approval
- Projecting 2x the numbers in 2024
STAMP Resources
Resources and Guidance for Supporting Young Women in Manufacturing

A Scaling Transformative Advanced Manufacturing Pathways Toolkit

October 2023

How to best support students at every stage on their journey from elementary to and through postsecondary, with a focus on shifting how we speak about and engage women in manufacturing experiences.
This collection of one-pagers guides employers in effectively hosting high school interns while championing equity in placement and career progression. Includes:

- Welcoming Young Talent
- Navigating Legalities and Logistics
- Onboarding and Supporting High School Interns
- Cultivating Success
- Connecting the Dots
IMA Scholarship

Application is open!
Encourage Your Students to Apply

Apply on Kaleidoscope

➔ Due May 31, 2024
➔ 1 recipient last year (D100)
Thank You!