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# AMTEC Career Pathway Tool Kit 2015

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## A Note of Thanks from the AMTEC Executive Director

To all college institutions and their industry partners that kindly hosted our researchers and unselfishly gave of their time and attention to this project. To the students and graduates with whom we interviewed and shared their stories, hopes, and future dreams we would also would like to say... “you have just begun your journey and we are excited at the opportunities before you. We wish only great things for your future-never stop learning”.



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## I. AMTEC Research Project Narrative

In 2010, AMTEC commissioned a literature review to determine the hallmarks of a successful career pathway. A career pathway is a framework for connecting a series of educational programs with integrated work experience and support services, thereby enabling students and workers to combine work and advance over time to better jobs and higher levels of education and training (The League for Innovation, 2007).

Published reports and data suggested that there are at least six hallmarks of strong, sustainable career pathways in education:

- Institutional and instructional transformation that develop clear linkages and easy transitions between education and training
- “Wrap around” support services, such as counseling, academic preparation, internships, financial aid, etc., to help students succeed
- Partnerships that make good use of data to drive planning and implementation
- Employer involvement in all phases of the process
- Continuous improvement
- Commitment to sustainability that involves the blending and/or reallocating of funding sources

Each step on a career pathway is designed explicitly to prepare students for the next level of employment and education. Career pathways target jobs in industries that are important to local economies (Jenkins & Spence, 2006). As such, these programs should not be developed with a “one size fits all” approach. Pathways must be individually structured to accommodate the particular industry targeted. The requirements of employment and advancement in the target sector, and existing programs and resources for preparing workers for employment in those sectors should be considered.

Subsequently, this national case study was launched to identify and verify these six hallmarks as foundational criteria to identify best practices among exemplary /successful career pathways. The research methodology was designed according to this criteria within our rubric (see attachment #3). This rubric is useful to illustrate which pathways contain any of the six “best practice” core elements. This is a longitudinal case study in the sense that for each NSF grant cycle, 5 exemplary case study programs were to be identified and



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included in the study; thus adding to and expanding the body of knowledge of successful career pathways and the model that was employed. The findings of this case study (cycle 1) were published for the purpose of equipping educational and industry leadership to be able to identify and implement successful career pathway programs which will assist in the filling of the 600,000 manufacturing vacancies at the time of the first publication in 2013. Projections recently reported in Andy Szal's report for Manufacturing.Net, "Manufacturing Skills Gap Could Hit 2 Million Jobs by 2025", highlight the growing need for talent in the manufacturing industry at large and not just the highly automated auto sector.

## **II. AMTEC Career Pathway Model**

<http://autoworkforce.org/workshops/career-pathways/>

## **III. Research Findings Based Best Practices**

### **A. Essential Elements of Successful Career Pathway Models:**

1. Employer Involvement in all Phases of the program:
  - Governance Body - Boards/ Committee composed of majority Employers.
  - Curriculum- Competencies, Standards, Labs
  - Recruitment - Plant tours, High school fairs
  - Retention - Mentoring, Internship
  - Funding - Equipment, scholarships, donor
  - Jobs – Internships and Pre or Apprenticeship Opportunities
  - An Employer or Consortia of Employers – MOA between parties
2. Institutional and Instructional transformation links to career competencies and advanced educational experiences:
  - Connects high school to college career pathway
  - Connects from workforce to college career pathway
  - Allows for non-credit to credit conversion
  - Values and aligns credits and industry certification
3. Wrap Around Support Services:
  - Provides career guidance, academic counseling, mentor financial assistance, internships or apprenticeship opportunities for student success



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#### 4. Partnerships:

Employers, Schools, Colleges, Universities, Government, and Community Based Organizations (CBO's)

#### 5. Continuous Improvement:

Utilizes data to improve performance and student success

#### 6. Sustainability:

Makes good use of data to drive planning and implementation that involves the blending and/or reallocating of funding sources

### B. Sustainable Funding Structures / Models

#### 1. Contractual relationship with K-12 –Lansing Comm. College

#### 2. Millage Support – Lansing Comm. College

#### 3. Funding from City government/Partnership –Alamo College

#### 4. Exemplary Career Pathway Programs Recommended Site

- Alamo Colleges
- Lansing Community College
- Ivy Tech
- Florida-statewide (FLATE)
- KCTCS – Owensboro Community and Technical College

#### 5. New Research recommended sites, 2014-2015

- Rio Hondo College, Whittier CA
- Sinclair Community College, OH
- Macomb Community College, MI
- St. Philips Community College, TX
- Shawnee State Community College, AL
- Patrick Henry Community College, VA

### C. Tips for Success

#### 1. Tip # 1

- More partnerships with regional corporations to provide innovative solutions to business problems.



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- Promising practices must be leveraged and researched in order to help other organizations improve their operational excellence.
  - More sophisticated research needs to be done to document if the “promising” practices are indeed “best” practices.
2. Tip # 2
- There is a need to use the models and promising practices to develop federal and state policies to ensure funding of, and focus on, these innovative programs...do not waste time “re-inventing the wheel”
3. Tip # 3:
- Research must be done to track participant demographic and performance data within the various career pathways models.
    - This might include creating data systems to track student progress across educational levels, institutions, and careers pathways in specific industries.
    - There must be clear indicators of college and career readiness with clear standards for those indicators.
4. Tip # 4:
- As the options increase for high school students to earn transcribed postsecondary credits in courses in which they are also enrolled at the postsecondary level, there must be a process to ensure that the credits are accepted at multiple postsecondary institutions.
5. Tip # 5
- The mismatch between high school graduate requirements and the college entrance requirements must be addressed.
    - Even with increasing demand by high school students to enroll in these innovative programs, the case studies reported that most of the high school students are not academically eligible to participate.
    - With increasing demand for high skilled workers in these industries, this mismatch must be addressed.



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#### **IV. Actual field based implementation tools**

- A. Exemplary Program Descriptions & Models  
<http://autoworkforce.org/workshops/career-pathways/>
- B. Career Pathway Needs Assessment Process  
(See Attachment #3—Assessment Template)
- C. Required Partnerships
- D. Program Organizational Charts
- E. Sample Program Proposals
- F. Memorandum of Understandings/Agreements (MOU/MOA):  
(See Attachments #4, 5, 6, 7)
- G. Data Collection and Student Tracking  
(Pending Attachment #9)

#### **V. Instructional Delivery Models (Credit and Non-Credit)**

- A. Sample CTE Articulation Course Agreements
- B. AMTEC stackable career credentialing and/or certification pathways  
(See Attachment #8-Alamo Pathway Model)
  - a. Student and Industry Testimonials
    - i. Student Voices
      - 1. I feel like I am more “respected by being in the program” (peers and parents).
      - 2. I know what and where I am going with my life while most of my friends do not.
      - 3. Most of my friends don’t have a clue about their futures. I do.
      - 4. I feel like there is a lot of pressure for me to do good in the program.
      - 5. We, the students and teachers, are like a family...we help one another.
      - 6. I feel like the hands on training is the most important part of the program.
      - 7. I know that I am successful because I am “happy” with my life
    - ii. Industry Voices
      - 1. We understand that these programs produce our future workers.
      - 2. We are very satisfied with the graduates and have no problem letting other companies know.



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3. Our Industry is constantly changing so education must do the same.
4. We need to attract those students that are not going college. Right?
5. For us soft skills and basic skills are still necessary for job success.
6. If things are bad now, wait until our valued skilled workers retire...and it will be sooner rather than later.
7. We found that the young men and women that we hired are amazing, all they needed was an opportunity.
8. Our industry does not understand education but we try to help in any way we can.