

AMTEC CAREER PATHWAY CASE STUDY SERIES

Table 1

Literature Findings for Effective Career Pathways

1. Employer Involvement in all Phases of the program	2. Institutional and Instructional transformation links education and career competencies and training	3. Wrap around support services.	4. Partnerships	5. Continuous Improvement	6. Sustainability
Governance Body - Boards/ Committee composed of majority Employers.	Connects high school to college career pathway	Provides career guidance, academic counseling, mentor financial assistance, and internships for student success.	Employers, Schools, Colleges, Universities, Government, and CBOs.	Utilizes data to improve performance and student success.	Makes good use of data to drive planning and implementation that involves the blending and/or reallocating of funding sources.
Curriculum- Competencies, Standards, Labs	Connects from workforce to college career pathway				
Recruitment - Plant tours, High school fairs	Allows for non-credit to credit conversion				
Retention - Mentoring, Internships	Values and aligns credits for industry certification.				
Funding - Equipment, scholarships, donors	-Is curriculum driven by certifications?				
Jobs – Internships and Pre or Apprenticeship Opportunities	-If so, which ones? AMTEC, MSSC, AWS, etc.				
An Employer or Consortia of Employers – Requires Memorandum of Agreement between parties.	-Industry involvement can be validated here too.				
-Organizational structure?					
-Level of industry Involvement?					
-Employers instructing in courses?					
-Exposure ?					
-Need to validate level of engagement					

Table 2
Case study locations

College	Population
Alamo Colleges	
Lansing CC	
Florida 's FLATE program	
KY/Toyota	
Ivy Tech , Indiana	

Table 3
Population Sector

1. Secondary students articulated through community college
2. Postsecondary students entering college first time
3. Postsecondary students seeking retaining
4. Dislocated/unemployed workers
5. Incumbent workers skill enhancement by mfg. in general, auto industry, tier supplier

Table 4
Purpose Statement

The purpose of the AMTEC career pathway is to study various population groups entering, and progress through, the AMTEC program in order to define critical success factors related to

- Student success
- Workforce development
- Structural and organizational variables
- Industry involvement
- Institutional and instructional transformation links education and career competencies and training
- Support services provided
- Partnerships and collaborators
- Continuous improvement and innovation
- Sustainability

**Table 5
The Data Collection Plan**

1	2	3	4	5	6	7	8	9
Student Success	Workforce Development	Structural and Organizational Variables	Industry Involvement	Institutional and instructional transformation links education and career competencies and training	Support services provided	Partnerships and Collaborators	Continuous Improvement and Innovation	Sustainability
1) Passing Rates on end of course exams (BSC 9, 11)	5) % of industry partners satisfied with AMTEC curriculum (BSC 14)	8) Start-up needs analysis	10) Types of industry involvement at (a) start-up and (b) development	15) Methods to "listen to and learn from" current students	21) Types of support services to students/participants	23) Types of partners and collaborators	25) Organizational Performance review processes	26) Internal and external factors to insure sustainability
2) Passing Rates on AMTEC Certification (BSC 9, 11)	6) Placement of students out of AMTEC program	9) Start-up Environment	11) Industry involvement in (a) recruitment and (b) retention of students/participants	16) Methods to engage students and stakeholders	22) Perceived effectiveness of support services for population sector	24) BSC: Part VI: Collaboration		
3) Satisfaction Levels of Completers and Non-Completers on curriculum (BSC 15)	7) BSC Part IV: AMTEC Impact Data		12) Industry involvement in funding	17) Methods to build student and stakeholder relationships				
4) Industry Satisfaction with Customized Training			13) Industry involvement in placement	18) Methods used to measure, analyze, and improve program				
			14) Industry involvement in delivery	19) BSC: Part IX: Credit for Prior Learning Policies				
				20) BSC: Part I: Perceived Benefit of Credit				

Table 6 Case Study Goals

Case Study methodology is a holistic, in-depth investigation designed to bring out details from the viewpoint of the participants by using multiple sources of data.

The broad aims of the AMTEC case study series are:

1. To increase knowledge of academic expertise, industry practice and knowledge transfer about industry-education advanced manufacturing and automotive career pathways.
2. To describe a set of circumstances, from which lessons can be drawn for other organizations
3. To explore the opportunities and challenges of industry and education partnering with one another with the aim of developing future partnerships
4. To be stand-alone 'learning' case study that generates new insights and perspectives, and inspires innovation and improves the effectiveness of industry-education partnerships;
5. To present practical examples of AMTEC partnership model and the application of partnership skills for use in creating p-16+career pathways.
6. To develop an awareness on the potential of using industry-education partnerships

Table 7 Case Study Methodology

This case study will use the following methodology

- Documentation—primary sources, i.e., project proposals, press releases, advertising texts, reports
 - Memorandum of Understandings
- Archival records—organization charts, survey data, personal records
- Direct Observation—site visit
- Interviews with key informants
 - Telephone and/or onsite interviews with the partnership administrators from industry and education
 - Telephone and/or onsite interviews with key players and stakeholders
 - Telephone and/or onsite interviews with college students and industry participants

Case Study Survey Information

Name of School/College:	
Title of Program:	
Contact Person Name and Title:	
Campus mailing address:	
City: State: Zip:	
Phone Number: FAX:	
E-mail or web address:	
I. Level(s) of students/industries served:	
<input type="checkbox"/> Elementary	
<input type="checkbox"/> Middle School	
<input type="checkbox"/> High School	
<input type="checkbox"/> College	
<input type="checkbox"/> Industry	
Requirements of Participants:	
Time Span of Program:	
<input type="checkbox"/> Academic Year	
<input type="checkbox"/> Summer	
<input type="checkbox"/> Both	
Is this Program	
<input type="checkbox"/> New	
<input type="checkbox"/> Continuing and began on:	
Program Academic Subject Areas (science, math, etc.):	
II. Are you partnering or collaboration with any other entity?	
If so, whom	
III. Is this a college preparation program?	

IV. Program Description. Please include the names of school partners, location of community(ies) served, to whom do you market your program, and is there any portion of your program delivered via the web:

V. Please list the program's accomplishments

I. Structural and Organizational Issues

	Industry Name(s), Position	College Name(s), Position
Names and contact information, roles, positions		

- 8). Describe the origins of the partnerships (“Tell Your Story”)
- a. Key player(s) (who had the vision, who had the commitment to the project, who initiated and “sold” the project)
 - b. Describe the original strategic challenges being addressed —the original vision/goal/issue to be resolved/reason to start the program/project
 - c. Describe how the organization(s) established the strategy or action plan to address the strategic challenges
 - d. At the time of start-up describe the strategic advantages and challenges that this project/program could address

	Industry	College
Strategic advantages in programs and services		
Strategic advantages in societal responsibility		
Strategic advantages in human resource		
Strategic challenges		

9). Describe the environment at the time of the start-up

	Industry – employment situation	College --current policies and procedures
Environment at time of start up		
Culture at time of start up		
Boards/Committee in place		
Previous collaboration initiatives		
Memorandum of Understanding's both formal and informal		
Competitive environment—how much market share did each enjoy		
Needs of the market		

9). What is the stated mission and vision of the program—what are the distinctive characteristics of the culture?—do they both agree?

	Industry Perspective	College Perspective
Mission		
Vision		

9). What are the workforce profile or employee groups involved in this program--both from industry and education?

	Industry Perspective	College Perspective
Workforce Involvement		

9). What is noticeable different about the structure of this program?

	Industry Perspective	College Perspective

9). Describe any changes in the organizational structure since the project started

	Industry Perspective	College Perspective

II. Industry Involvement in all phase of the program

10a. Describe your involvement in the strategic planning for this project—give examples

	Industry Response	College Response
Development of short and longer-term action plans		
Implementation of short and longer-term action plans		
Ensure availability of financial and other resources to support the accomplishment of the action plan		
Address human resource or workforce needs to accomplish short and longer-term plans		
Development of performance measures or indicators for tracking the achievement and effectiveness of the program		
Modification of action plan if a shift in plans or rapid execution of new plans is required		

10b). Describe your involvement in the curriculum development process for this project

	Industry Response	College Response
Identification of standards		
Facilities location		
Equipment selection and acquisition		

11a). Describe your involvement in the recruitment of students/participants and other needed stakeholders

	Industry Response	College Response
Specific items such as plant tours, high school fairs		
What processes are used to listen to potential students and stakeholders		

11b). Describe your involvement in the retention of students/participants

	Industry Response	College Response
Specific roles such as counseling, mentoring, internships		

12). Describe your involvement in the funding for the program

	Industry Response	College Response
Funding source		
In-kind contributions		

13). Describe your involvement in the placement of students, interns, or graduates

	Industry Response	College Response
Describe pre or apprenticeship opportunities		

14). Describe your involvement in the delivery of the instructional program

	Industry Response	College Response
Development of assessments		
Faculty selection and involvement		
Strategic Planning Process for the program		

III. Institutional and Instructional Transformation links education and career competencies and training

List the key stakeholders in this program (any group that are or might be affected by the program—such as parents, the workforce, collaborators, governing boards, alumni, employers, other schools, regulatory bodies, funding entities, taxpayers, policy makers, suppliers, partners, and local and professional communities)

Industry Response	College Response

15). Describe the process used to *listen to and learn from* current students and stakeholders

	Industry Response	College Response
To obtain actionable information		
To obtain feedback on the educational programs and services		
To obtain feedback on support for the program		

16). Describe the process used to engage students and stakeholders to serve their needs

	Industry Response	College Response
How do you identify and innovate educational programs and services to meet the requirements		
How do you identify and innovate educational programs and services to exceed the expectations of students and stakeholders		

17). Describe the process used to build student and stakeholder relationships

	Industry Response	College Response
How do you market, build, and manage relationships with students and stakeholders		
How do you market, build and manage relationships to acquire new students and stakeholders		
How do you market, build and manage relationships to retain students and stakeholders		
How do you manage student and stakeholder complaints?		

18). Describe the measures used to measure, analyze and then improve the program

	Industry Response	College Response
How do you define a program completer or a success?		
What are the overall key success factors of the program?		
Do students obtain license, industry-recognized certifications or other professional credentials?		
What advanced opportunities for students have once they complete the program?		
Do you define and measure key indicators of student engagement such as absenteeism, dropout rates, etc. (<i>request data</i>)		
Do you define and measure key operational performance indicators such as student learning, waste reduction, new program or service introduction, defect levels, etc. (<i>request data</i>)		

IV. Wrap Around Support Services

21). Describe the services provided to students/participants

	Industry Response	College Response
Career guidance		
Academic counseling		
Mentor financial assistance		
Internships		

22). How effective are the support services for this population sector

	Industry Response	College Response
Career guidance		
Academic counseling		
Mentor financial assistance		
Internships		

V. Partners and Collaborators—

- **Partners** refer to those key organizations or individuals who are working in concert with the program to achieve the program goals or to improve performance.
- **Collaborators** refer to those organizations or individuals who cooperate with your program to support a particular activity or event or who cooperate on an intermittent basis when short-term goals are aligned or are the same.

23). List the key partners and collaborators in this program (may include other schools, colleges, universities, government, employers, workplaces, community-based organizations, social service organizations, private foundations, parents, etc. Describe how they are key to the success of the program

	Industry Response	College Response
Partners		
Collaborators		

23). List the key partners and collaborators in this program (may include other schools, colleges, universities, government, employers, workplaces, community-based organizations, social service organizations, private foundations, parents, etc. Describe how they are key to the success of the program

	Industry Response	College Response
Partners		
Collaborators		

VI. Continuous improvement and Innovation

25). Describe the use of organizational performance reviews to develop priorities for continuous improvement and opportunities for innovation

	Industry Response	College Response
What program reviews are conducted for the program?		
How are priorities set for improvement or innovation?		
How are these priorities and opportunities deployed to faculty, staff and other work groups?		
How do you set “stretch” goals and promote breakthrough improvements?		

25). Describe the way work is organized and managed?

	Industry Response	College Response
How do you measure student and participant growth and learning?		

VII. Sustainability—refers to the program’s ability to address current needs and to have the agility and strategic management to prepare successfully for the future.

26). Describe the internal and external factors to insure sustainability

	Industry Response	College Response
Workforce capability and capacity considerations		
Resource availability		
Technology changes		
Knowledge		
Core competencies		
Work systems		
Facilities		
Equipment		
Changes in educational market		
Changes in student and stakeholder preferences		
Changes in the operating environment		
Changes in budgets and finances		
Changes in the legal and regulatory environment		
Preparedness for real-time or short-term emergencies		