

Institute for Emerging Issues

Planning Guide for Community Action to Align Education and Manufacturing

THE IMPORTANCE OF ALIGNING EDUCATION AND MANUFACTURING AT THE LOCAL LEVEL

Smart manufacturing technologies and new materials are revolutionizing *what* and *how* products are produced. These changes require new and higher skill levels in the manufacturing workforce. At the same time, rising wage levels and transportation costs, among other factors, are forcing companies to reexamine *where* they produce, including returning some manufacturing back to the United States from abroad.

North Carolina and the United States may stand on the brink of a manufacturing revolution. As the fourth largest manufacturing state in the country, North Carolina has an opportunity to build a new manufacturing future by bringing jobs and wealth to communities able to link their assets to specific opportunities.

At IEI's 2013 Emerging Issues Forum, leaders from business, government and the nonprofit communities prioritized three main strategies for improving North Carolina's manufacturing economy. These were:

1. Better alignment of manufacturing businesses and North Carolina's educational systems (to address a hard and soft skills mismatch between workers in the manufacturing talent pipeline and those demanded by new and advanced manufacturing at the local level);
2. Development of a long-term infrastructure plan for North Carolina, one that includes deep-water ports, air travel, roadways, highways/interstates, railroad systems, and broadband.
3. Rebranding manufacturing as a career option as well as promoting the value of careers and related training in manufacturing.

The Role of Community Conversation and Action

IEI—through a series of fifteen community forums held across the state in the summer of 2013—turned its attention to the first strategy. These generated considerable conversation and new ideas for closing alignment gaps. In some cases, the meetings introduced ongoing efforts to community members while in others they produced new ideas and related action. For more on these, please see IEI's report, *North Carolina's Manufacturing Future: County-Level Challenges, Solutions and Action*.

The needs of manufacturers are increasingly localized, putting pressures on communities to address alignment of businesses and education systems. Developing the capacity to rapidly respond to local needs, changes, and deficiencies will help separate out those communities who will benefit from the new manufacturing environment from those who will not.

Community conversations can provide clear steps to further enhance and harness manufacturing for community and economic development. Community members should view a meeting as a starting place, one that should draw heavily on their own unique history, culture, and assets for the discussion to have relevance. The following pages outline a process for facilitating community conversations around aligning local manufacturing and educational assets and resources.

ABOUT THE INSTITUTE FOR EMERGING ISSUES

Housed at NC State University, the Institute for Emerging Issues (IEI) is a public policy, think-and-do tank that convenes leaders from business, nonprofit organizations, government, and higher education to tackle some of the biggest issues facing North Carolina's future growth and prosperity.

Through research, ideas, debate, and action, we prepare leaders to address North Carolina's future challenges and opportunities.

To learn more about the Institute for Emerging Issues, visit www.emergingissues.org.

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Goals and Objectives of the Toolkit for Community Action to Align Education and Manufacturing

The Toolkit for Community Action to Align Education and Manufacturing is designed to help individuals and organizations that want to organize community conversations to achieve three potential objectives:

- Get community members talking about the importance of aligning local educational systems to meet the needs of manufacturers;
- Identify specific community-based solutions to meet alignment needs; and
- Developing clear steps for turning ideas into action.

The Toolkit includes:

- Background Information [the @*ManufacturingWorks* report and an infographic] that provide qualitative and quantitative information about new opportunities in manufacturing and related strategies to take advantage of them.
- This *Planning Guide* that describes how to organize and carry out a community conversation with a goal of identifying concrete actions to align education and manufacturing at the local level, as well as specific next steps to act on them.
- A report, *North Carolina's Manufacturing Future: County-Level Challenges, Solutions and Action*, that highlights efforts in more than fifteen North Carolina communities to align their local educational systems with manufacturers. These initiatives include middle school visits to local STEM businesses, apprenticeship programs, and upgrading curriculum and training equipment in community colleges.

Manufacturing today is very different than it was in decades past. A perfect storm of global economic forces and technological innovation sits on the horizon. If carefully harnessed, some North Carolina communities could see a resurgence of manufacturing. Smart communities are already stepping up by having conversations and taking concrete actions to position themselves for success.

A Process for Planning Your Community's Conversation

There are many ways to organize a discussion in your community. This *Guide* shares one such approach, focusing on key steps such as creating a team, setting goals, recruiting meeting participants, determining the agenda, pre-meeting preparations and following up after the meeting.

Creating a Team

It is almost always helpful to have a team who can help you organize a community conversation. This team could be responsible for:

- Building diverse partnerships with community groups and individuals
- Planning for how the conversation will happen
- Recruiting community participants
- Recruiting a facilitator
- Thinking about how to support those priorities for action that emerge from the meeting

When thinking about your team, consider community “stakeholders,” i.e. members who have a direct interest in the topic of alignment:

- Educators:
 - Technical institutes, community colleges, or 4-year institutions in your area
 - the K-12 school system – Career and Technical Education teachers, school principals, the superintendent
- Local manufacturers
- Your local economic development board/council/commission
- Your workforce development board
- Manufacturing workers
- Unemployed workers
- Students
- Local government officials (professional staff, elected officials)
- Community foundations in your area

Getting some of these individuals and organizations on board in the planning stage can significantly increase your chances of a well-attended and successful meeting. More generally, it will help your attendance if the right people in your community understand why you are hosting the discussion and can offer their insights on the topic, even if they choose not to join your planning team.

Setting Goals

Once you have a team, you can work to define your goals for the conversation and create a plan for the work to come. Think about the outcomes that you want to see from working together and from the conversation. Consider:

- How your team will work together
- The kinds of change you want to see as a result of this effort
- How many people you would like to participate

- If and how you want to support implementation of the priority idea(s) generated from the conversation

Recruiting Participants

Community conversations will benefit from a broad participation (formal and informal) of civic, business, government, and education leaders on how to align manufacturing businesses with educational systems. Manufacturing intensive jobs are changing, drawing higher wages, and increasing the wealth of communities. In order to capitalize on these gains, communities must be intentional about strategies to take advantage of the potential that this sector has to offer.

- Decide on who should be in the room to have an informed conversation. Refer back to the list above of those who may be directly impacted by this topic, i.e its “stakeholders.”
 - What groups need to be at the meeting?
 - What might keep them from participating?
 - Who from the team is best placed to reach out to each group?
- Plan your invitation so that it answers the following questions:
 - What are we doing? (e.g., “hosting a community conversation about...”)
 - What are we trying to accomplish? (e.g., “we want our community to have...”)
 - Why does this matter to the person you are inviting?
- Plan how you will reach out to each person and group (e.g., face-to-face, phone calls, email, presentation to community groups, website, flyers, etc.)
- Determine a meeting location and date. The right location is an important factor in hosting an inclusive and effective discussion. Consider holding your meeting in a neutral location such as a community college, university, library, government office building or some other public space. Choose a date that does not conflict with other community events.
- Determine if you will use a trained facilitator. It is often helpful to have a neutral party to manage the conversation. This person’s job is to create a productive space where people from different perspectives can talk about the topic. While using a trained facilitator is ideal, for less conflicting topics, it may be less important. This guide offers Facilitator Tips and the resource section includes information on finding a facilitator.
- Consider logistics. Besides the location and date, what other things need to be considered? These might include:
 - Supplies (see sample list below)
 - Preparing the speakers who present at the meeting
 - Creating a meeting evaluation form
 - Deciding if/how to track registrations
 - Materials for attendees/participants in advance of the meeting (if any)
 - Childcare
 - Translators
 - Refreshments
 - Carpooling and other transportation arrangements
 - Arrangements for hearing- or visually impaired participants

Determine the Agenda/Meeting Structure.

Based on IEI's experience, meeting participants will come with varying degrees of familiarity with the topic of aligning manufacturing and education systems. Part of the meeting should be devoted to talking about the current situation with manufacturing in the community (what is being produced, how many companies there are, how many people are employed, what are the trends in production and employment over time, what workforce issues are confronting local manufacturers, etc.).

A central goal of the meeting should be to identify areas where educational systems are NOT meeting the needs of local manufacturers, as a prelude to brainstorming ways to close those gaps. For identifying the problems, there is no substitute for hearing from manufacturers themselves.

Getting the meeting structure right is crucial to walking away with concrete actionable priorities with identified next steps. It is very easy to spend time talking about the problem and potential solutions. Emerging with a prioritized list—preferably one or two top priorities—and specific next steps to act on them will leave participants feeling like their time was well spent.

See the Appendix 1 for a sample agenda, one used for IEI-facilitated forums in 2013. Note how the meeting is structured to provide information (about 30 minutes) and then move on to brainstorming, prioritization and next steps (60 minutes). We recommend devoting most of the time to audience participation, making for a more interactive and productive meeting.

Pre-Meeting Preparations

There are a variety of considerations that will enhance the chances of having a successful meeting. These include,

- Meeting Room Set Up. Set up the meeting room in rounds of six or eight, depending on the number of participants. Provide necessary supplies at the center of each table – paper, pens and pencils and evaluation forms. Have flip charts and easels readily available. Place a podium at the front of the room, along with a projector stand for PowerPoint slides (if used). If a slide advance remote is not available with the projector provided, rearrange the podium and the projector stand so that manual advancement of slides is effortless and unobtrusive for the speaker.
- Prepping your speakers. Those invited to speak to the group should be clearly prepped for their roles. After securing their willingness to participate, contact them again two weeks prior to the event to solidify their participation and to go over their role in the meeting. One week ahead of time, send a reminder e-mail to all the participants with final instructions.
- Gather needed supplies identified earlier. These might include
 - An attendance sheet
 - Pens and pencils
 - Easel, flip chart and markers to record community discussion
 - Masking tape
 - Post-it notes or stickers (at least 10 per attendee)
 - Evaluation form

- Pre-Forum Questions for Consideration. Often, it can be helpful for conversation participants to think about the topic in advance. Here are some questions to help registered participants think about alignment in their county in advance of the local meeting.

How can this community better connect its local education systems and manufacturers?

1. How are jobs and careers in manufacturing perceived in your community?
2. Does your community have current examples of aligned education and manufacturing resources? If so, where and how are they working?
3. What skills do you consider to be some of your local manufacturers' most pressing workforce needs?
4. What roles have local assets and resources (e.g. workforce development boards, city and county leaders, community colleges, public-private partnerships, community investment, private sector leadership) played in your community's economic development?
5. How can the state of North Carolina's resources be deployed to better support your
 - a. Manufacturing opportunities? And
 - b. Alignment efforts?

With a goal of getting attendees to think about specific alignment possibilities in their communities, it might be helpful to share examples of what other communities have been doing. Distributing these in advance of a meeting could be useful.

Examples of Alignment

Below are resources that highlight specific examples of alignment initiatives in communities across the state.

- a. Training for New Manufacturing Careers (3 minute video)
<https://emergingissuescommons.org/voices/37>
- b. Advancing Manufacturing Efficiencies (3 minute video)
<https://emergingissuescommons.org/voices/38>
- c. *North Carolina's Manufacturing Future: County-Level Challenges, Solutions and Action* (IEI report and part of the Toolkit)
<http://iei.ncsu.edu/manufacturing-toolkit/>

Following Up After Your Meeting

It is important to not lose momentum after your meeting. It is natural for attendees to return to their "regular lives" after the meeting and allow the pressures of day-to-day work get in the way of anything new emerging from your meeting. Specific actions could include,

- Distribute a summary of the meeting to participants shortly afterwards to remind them of what was done and action steps identified
- Identify who will be the point of contact for the effort going forward and encourage them to keep the community informed of the efforts that follow (if not you or your team)
- Follow up on the identified "next steps" from the meeting, including contacting those individuals or organizations tasked with specific next steps (if not you or your team)

Resources

In addition to resources available through specific team members, meeting planners can draw upon publicly available information to help with planning:

- NC Department of Commerce, which has statistics on manufacturing at the county level available through its AccessNC portal:
<http://accessnc.commerce.state.nc.us/EDIS/page1.html>
- IEI's Toolkit for Community Action to Align Education and Manufacturing, which includes background on the new manufacturing economy, the work other communities are doing on alignment, as well as specific initiatives.
- Facilitation: The North Carolina Cooperative Extension Service partnered with IEI to provide free facilitation services for alignment conversations in 15 counties across the state in 2013. Please contact your local Extension office to inquire if such a service might be available in your community.

Appendix 1

Sample Agenda for a Community Conversation

Local Forums can vary in layout. The following agenda should be considered a flexible model and framework. There will be levels of variation in community agendas based on particular needs expressed by local hosts.

Suggested Time(s)	Agenda Item	Notes. Thoughts. Brainstorms
15 minutes	Networking, Meet & Greet	Allow time for participants to meet other stakeholders at the Forum.
10 minutes	Introductions and Welcome	<ul style="list-style-type: none"> Opening remarks and introductions coordinated by the meeting convener(s) to welcome the attendees and highlight the meeting's topic, goals, and structure for achieving them Consider: To orient the group toward what "alignment" might look like, consider giving examples of what "alignment" might look like and what value it can provide to a community. For instance, one could show the short video (linked below) on why new training for manufacturing careers is necessary in today's economy. This link to a video featuring Olympic High School and Siemens illustrates why a manufacturing community forum is helpful in aligning education systems with manufacturing enterprises. The video is 3 minutes in length and can be easily understood by any audience member. See: https://emergingissuescommons.org/voices/37
10 minutes	What's Our Situation? A Community Manufacturing Profile	<p>Quantitative</p> <ul style="list-style-type: none"> Introduce data on local manufacturing from the NC Department of Commerce (http://accessnc.commerce.state.nc.us/EDIS/page1.html; source of the most recent data) or from the Emerging Issues Commons (www.emergingissuescommons.org). What is our manufacturing profile (sectors, firms, employment)? How has that changed over time? Tip: Consider asking your local economic development council to both create and present this profile
15 minutes	What's Our Situation? Local manufacturers and educational institutions	<p>Qualitative</p> <ul style="list-style-type: none"> Local manufacturers A local educator (K-12 administrator or community college official) <p>Manufacturing enterprises included on the agenda could answer the following two questions:</p> <ol style="list-style-type: none"> 1. What workforce challenges does your business

		<p>face?</p> <ol style="list-style-type: none"> 2. Is there a skill shortage, an overall labor shortage, or both? <p>Educational institutions on the agenda could be asked to answer the following questions:</p> <ol style="list-style-type: none"> 1. What educational programs, certifications, or other training programs are available to manufacturing enterprises in your community? 2. Is there a specific sector of manufacturing or skill that your community college is known for? 3. Is this program in use by manufacturing enterprises in your community?
60 minutes	Facilitated Discussion, Part 1 (see Appendix 2 for a detailed breakdown of this piece of the agenda)	<p><u>Brainstorming</u>: How can communities better connect local education systems and manufacturers?</p> <ol style="list-style-type: none"> 1. What strategies or priorities can best align your county's (or counties') industry needs with educational opportunities? <p><u>Prioritization</u>: Considering the list of strategies that you just generated, which one or two is your community ready to initiate?</p>
25 minutes	Facilitated Discussion, Part 2 (including next steps)	<p><u>Moving to Action</u>: For the Identified Top Priority(ies):</p> <ol style="list-style-type: none"> 1. Success: What would success look like? 2. Champions: Who are the key <u>partners</u> we need to help champion these strategies? Be as specific as possible. 3. Existing Assets: What existing assets could the county build upon in implementing the alignment strategies? 4. Threats: What can stop this idea from happening? 5. Capital: If this requires funding, where might we get it? 6. What else? What else can you think of that this idea will need in order to be implemented?

Appendix 2

Facilitated Discussion and Facilitator Tips

The conversation process is envisioned for approximately 20 people. If more than 20 people are expected, create two groups with mixed representation (across education, business, government) and secure a second facilitator.

Pre-Meeting

1. Arrive early to site location to prepare respective meeting or break out room for facilitated discussion.
2. Post all the questions on flipchart paper or prepare to project on PowerPoint so that the questions are visible to everyone in the room.

Facilitated Discussion

3. Introduce yourself, your affiliation, and the purpose of your session. Review the process with the participants so they are clear about how the time will be spent.
4. Provide/post a few ground rules:
 - a. Create space for others to engage
 - b. One speaker at a time
 - c. Strive for agreement where possible
 - d. Ensure respective ideas are captured
5. Review the process to be followed over the next hour (or so) and what the output will be

Discussion Format

- **Brainstorming (25 minutes): What strategies or priorities can best align your county's (or counties') industry needs with educational opportunities?**
 - Ask each participant to silently generate a response to this question on the post-its provided. One complete idea per piece of post-it paper (with noun and a verb) that is stated as clearly and as specifically as possible. (10 minutes)
 - Ask participants to post all responses on a wall and encourage them to group similar ideas together. Ask the participants to read the responses individually and further group like ideas together. (10 minutes)
 - Finish the consolidation task as a group, identifying a final consolidated list of ideas (5 minutes)
- **Prioritization (25 minutes):** Ask the group to consider: given the list of strategies/ priorities that you just generated, which one or two ideas seem most feasible? Most effective? As the group narrows it down, ask around for which idea is there energy in the room for action.
 - Note: if there is more than one facilitated group, time should be allotted to find an all-group consensus among the priorities that emerge from each facilitated group.
- **Moving to Action (25 minutes):** For the identified idea priority(ies), have a group discussion to answer the following:
 1. Success: What would success look like?

2. Champions: Who are the key partners we need to help champion these strategies? Be as specific as possible.
3. Existing Assets: What existing assets could the community build upon in implementing the alignment strategies?
4. Threats: What can stop this idea from happening?
5. Capital: If this requires funding, where might we get it?
6. What else? What else can you think of that this idea will need in order to be implemented?
7. What are the immediate next steps (possibly including another meeting!) and who will take ownership of making them happen?