Identifying Skills Required by Businesses Successfully Leads to Student Hiring

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Setting the Context

- National Convergence Technology Center
  - Advanced Technological Education (ATE) Center with National Science Foundation (NSF)
  - Based at Collin College, Frisco, TX 2004 forward
  - Primarily in the area of networking infrastructure/mobility/data communications
Business and Industry Leadership Team

- CTC has tight integration with businesses
  - They lead
  - Not just advisory
  - Positive benefits for students throughout life of programs supported by NSF projects, Regional, and National Center
National Convergence Technology Center

- BILT Processes developed under the Regional Center for Convergence Technology
  - Used for National Center
  - Used for DOL TAACCCT grant with 7 partners
- Approach with businesses applies to creating/maintaining/reinvigorating any technology program
The Typical Business Advisory Council

- Meets 1 or 2 times per year, sometimes the only time the reps are on campus
- Mixed level of knowledge in membership
- Advises regarding a program, sometimes just reviewing rather than leading
- BAC members often find their time split between regional colleges because each college has its own council
Typical Result for Businesses

- May be more of a “rubber stamp” relationship
- May or may not be truly engaged
- May or may not be people at the right level to really help with your program
Suggested Engaged BILT Model

- Business and Industry *Leadership* Team (BILT)
- Regional Council (or even national) advising multiple colleges
- Meets quarterly, not 1-2 times per year
- Right people on the council
  - High-level *technical* executives
  - First line managers
  - Technicians
  - HR representatives as long as they are not the sole reps for a company
More than an Advisory Council

- Businesses LEAD the work and are part of the leadership team
- Appropriate name is Business & Industry Leadership Team (BILT) – *Leadership*, not Advisory
- Meets 4 x per year, 1 face to face, 3 x via webinar
- Less than quarterly can mean “out of sight, out of mind”
Overview of Engagement

- Trends identified before need for skills to support the trend (allows time to develop curricula) - BILT owns curriculum
- Solid process, business-driven, to determine Knowledge, Skills, and Abilities needed from graduates (faculty determine how to address KSAs)
- Forecast need for future employees
- Involvement in recruitment events
- Involvement in professional development for faculty
Role of the Engaged BILT, Con’t

- Provide internships for students
- Provide externships/job shadowing for faculty
- Guest speakers
- Co-author whitepapers
- Evaluate capstone presentations
- Participate in panels at conferences
KSA Analysis

- Modified DACUM – PCAL7
- Starts with a Pro Forma List of Knowledge Areas
- Takes about 6 hours for first analysis
- BILT adds/deletes items
- BILT ranks each item
- Faculty cross reference to curriculum
- Curriculum developed to fill gaps
Convergence Technology KSAs

- Originally started with lists from the National Skills Standards Board in early 2000s
- Has undergone revision annually
- Has also been codified with the many certifications that are now available
Each Item Ranked

- **Importance** - How important is it for entry-level employees to know or to do the performance criteria statement (i.e., job skill)?
- **Level of Proficiency** - How good is good enough for entry-level employees to know or to do the performance criteria statement?
- **Time Spent** - How frequently are entry-level employees expected to know or do the performance criteria statement?
- **Difficulty** - How difficult is it for entry-level employees to know or to do the performance criteria statement?
Use of Results

- Weighted Average per item
- Typically items weighted 3 or over merit inclusion in curriculum
- Faculty then cross reference items to curriculum to identify gaps
- Curriculum developed for gaps
- Faculty/administrators develop certificates/degrees
- Certificates/degrees are taken back to BILT for explanation and approval
Benefits to Students

- BILT members feel ownership of courses, certificates, and degrees
- BILT members are more engaged
- BILT members willing to mentor students
- BILT members ready to hire students because they know their skills
For a new program, begin with business demand

- Start with the business need
- If there is no validated need, then there is no need for your proposed program
- Regional business need to own the program
How to Build or Reinvigorate an Engaged BILT

Education is a business, and there are consumers for our product: our graduates.

- Businesses
- Industries
- Governments agencies
- Non-profits
- Universities
Target Membership

Determine which businesses, industries, agencies, non-profits, and universities should be represented

- Distribution of size and type
- Not just large companies; medium and small companies provide perspective and are likely to hire as well
Determine Your Expectations

- What do you want to get from the BILT?
- Develop “sales” script for recruitment
- Establish expected time commitment per quarter (typically 1.5 to 2-hr call, face to face annual meeting for curriculum adjustment plus optional other events)
Establish Expectations For Involvement

- Job skills validation – detail the process
- Course and curriculum validation/modification
- Job forecasting- anecdotally and through surveys
- Internships
- Job shadowing/externships
- Providing expertise in set-up and operation of labs
Expectations (continued)

- Donating equipment or other resources
- Providing speakers at student, public and education events
- Helping with recruitment
- Teaching Case Study courses
- Mentoring students

Bob Wright with Mary Patton, the CTC’s first graduate.
Mary, a Sr Support Engineer, is now a member of the Case Study Business Panel, critiquing capstone presentations.
Engaged Business Requires High-Touch not Mass Mailing

- Requires personal contact
- Target businesses and industries, universities and agencies that hire people with the job descriptions representing your curriculum
- Share your vision
Emphasize Win-Win for the Business

- Not just an expectation to contribute
- Opportunities to:
  - Share trends in a non-proprietary environment
  - Network with other professionals in the industry
  - Build pipeline of “right-skilled” future employees
After the Initial Recruitment

- Schedule meetings well in advance, and follow up with reminders
- Time – early morning typically works better, before BILT members go to the office
- Refreshments – not elaborate, but important to have, especially early in the morning
Characteristics of an Engaged BILT Meeting

- Invite all faculty to attend the meetings as observers to gain their buy-in as to what the BILT wants

- Publicity – invite college and local reporters/writers
The BILT Meets

- Explain how important they are to the program and what their companies will get from their involvement
- Clarify roles and responsibilities between BILT and educators (educators are there to listen, not to present or run the show)
- Explain need for quarterly meetings and establish dates for the year if possible
Other aspects of the BILT meeting:

- Ask for Trends – what’s “hot”, where hiring is expected, etc.
- Review opportunities for helping from your “sales script”
- Stick to the agenda and keep discussion rolling, limiting those who might want to dominate
Other aspects of the BILT meeting

- Acknowledge the importance of their time by starting and stopping on time regardless of whether or not your agenda is complete.
- End early if you have what you need. End on time at all costs. You can always complete your work on email.
- Take minutes; publish them; have next BILT approve them.
BILT recognition

- News releases/articles
- Photos and bios on your web site
- Thank your emails (personal, not mass emails)
- Thank you letters to the President and their bosses
- Certificates & Plaques

If you can support them
Keeping the BILT fresh

- At least one new member each quarter and introduce them
- Talk with each member individually at least annually to ask them what they think you could do differently to obtain more from them or the entire BILT
Benefits from following this approach

- High interest helping with your program including
  - Hiring your students above other applicants because they know what your students know
  - Helping with recruitment
  - Presenting in classes, etc.
BILT Supports Professional Development

- Businesses often provide tracks for week-long professional development through CTC – preps faculty to teach new courses
- Example: Working Connections Institute each summer and winter
  - Summer Working Connections – Texas, Florida
  - Winter Working Connections - Texas
How to get started

- The National CTC has a mentoring program called The Convergence College Network (CCN) that provides free
  - Curriculum
  - Recruitment materials
  - Professional development

PLUS

Human support to implement your programs
38 CCN member schools in 15 states

http://www.connectedtech.org/program_finder.html
What the CTC provides

- Access to network of colleges to share best practices
- Job Skills List that has been regionally/nationally validated
- Process and help for validating skills in mentored college region
- Degree and Certificate Patterns
- Curriculum for some courses
- Virtual and other labs for some courses
- Case Studies
What the CTC provides

- One or more people to assist you in implementation
- Training for faculty through summer institute
- Help in determining equipment needs
- Recruitment plans and event details
- Possible partial financial support for travel for professional development
Convergence College Network (CCN) College Commitment:

- Equipment and support for a lab (varies by depth and breadth of programs needed in your region)
- Lead faculty member + other interested faculty members
- Administrative support
- Active and involved Business & Industry Leadership Team (built with CTC help)
Convergence College Network (CCN) College Commitment:

- Lead job skills validation with local Business & Industry Leadership Team (with CCN help)
- Plan to develop and implement a degree and/or certificate plan based on validated skills
- Develop and implement a student recruitment plan
- Participate in CCN webinars
- Provide brief, quarterly reporting to CTC
The future...looks Mobile and in the Cloud

Applications available:

• Here this week
• By downloading the form off our website
• Giving us your card
For more information:

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Or visit our website:
http://www.connectedtech.org

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