Tech Prep is currently in practice in over 1,000 consortia and 5,700 schools nationwide. The skills required for employment in the future require schools to forgo traditional classroom and learning methods to implement courses where content is allied with real world living and working. However, concerns that community colleges have failed to accept the challenges of curriculum reform are being voiced nationally. A recent survey of 22 Florida community colleges in their second, third, or fourth year of Tech Prep funding suggests that the initiative has not yet begun to produce the systemic reform that is underway at the secondary level. Specifically, the survey found that, with respect to the colleges’ belief that “common core” courses paralleling secondary applied academic courses were appropriate for high school Tech Prep completers as currently offered, 82% (n=18) felt they were for Freshman Composition and 68% (n=15) felt so for algebra. Further, 68% of the colleges felt that it was better to modify existing courses by infusing competencies and applied teaching methodologies than developing separate courses for Tech Prep secondary completers. Only 23% of colleges reported that they had modified one or more “common core” courses. While Tech Prep is still a work in progress, this survey does reinforce the idea that the pace of change in community colleges is not keeping pace with secondary schools. The survey instrument and a list of participants are appended. Contains 11 references. (KP)
Community College Reform and Tech Prep: Leading, Following, or Business as Usual?

Michael J. Horan
Tech Prep should no longer be considered a transitory or shallow reform Band-Aid for the ills facing American education. In fact, this federally funded initiative is now embraced in over 1,000 consortia and about 5,700 schools across the country (AACC, 1994, p. 9). This represents over 50 percent of U.S. secondary schools and an even greater percentage of community, junior, and technical colleges (Bragg, Layton, & Hammons, 1994, p. 2). It appears that Tech Prep is becoming entrenched in the organizational hierarchy of education, although the long-term results will not become clear for several years.

Central to the Tech Prep concept is the notion that education should focus more on the needs of students, via workforce development, and less on preparing them for the next level of education. Business and industry leaders are pushing the hardest for school change and hope that Tech Prep will be the answer to meeting their employment needs in a high-technology driven global economy (Daggett, 1993, p. 19).

After decades of having the inside track for high paying entry-level jobs, four year college graduates are now finding more and more employment doors closed to them. The economic value of a university degree continues to decline, especially for unskilled liberal arts graduates. Unemployment among college graduates is expected to stay at 10 percent or higher and almost a majority will end up in jobs where their
education is unnecessary (Perelman, 1994, p. 18). Anticipated hiring of new graduates with liberal-arts degrees is off 11 percent and this will only add greater numbers to an already swollen labor pool for this group (Gose, 1994, p. A28).

Business and industry, on the other hand, place high value on skilled technical labor and are willing to pay handsomely for this training. For example, in Florida a 1993 study shows that the community college Associate of Science (AS) degree holder can expect earn over $5,000.00 more per year for entry level employment than their four-year university counterparts (Florida Education & Training, 1993). A study released by the North Carolina Department of Community Education also indicates two-year AS degree holders earn more than baccalaureate holders (Douglas, 1994, p. 2).

The future of unskilled labor in the United States is clear: low demand, low wages. By the year 2000, unskilled workers will be living on the fringes of society with little prospect of employment beyond manual, service industry work (Horan, 1994, p. 26). It is this dismal outlook for employment for unskilled Americans that is helping drive Tech Prep education, including new approaches to revitalizing outmoded curriculum.

The skills required for employment in the coming years require secondary and postsecondary schools to reconceptualize how their curriculum should be structured and delivered. Tech Prep is forcing educational institutions to seriously reconsider their roles with regard to preparing students to live and work in the next century. The task ahead for curricula reform advocates, as Hull (1993) believes, is to forgo the traditional classroom and learning methods, and implement contextual learning environments. Students learn best when they see and understand the course content allied in a manner that is consistent with real world living and working.
If nothing else, Tech Prep is challenging secondary and postsecondary education to develop learning systems that connect school with the world of work. An increase in technical job requirements by business and industry require that relevance be introduced into the curriculum at all levels the technical and traditional academic aisles of education. Knowledge for knowledge's sake is no longer sufficient for employment in a global economy (Toombs & Tierney, 1991, p. 38).

At the secondary level, a national study indicates that "the predominant curriculum reform strategy currently underway is to add applied academics (commercially, or locally developed) to existing curricula or replace existing courses with applied academics (Bragg, et. al. 1994, p. 5). This report also suggests that, with the exception of formal articulation agreements between secondary and post secondary schools, curriculum reform is primarily confined to high schools. Most experts agree that secondary institutions are most in need of pedagogical change. However, community colleges must also respond to the intent of Tech Prep.

Concerns that community colleges have failed to accept the challenges of curriculum reform are being voiced nationally. For example, Pennington (1994, p. 2) suggests "There may be more innovation happening in the high schools than in many community colleges in terms of contextual learning, learner-driven teamwork, project-oriented learning, and interdisciplinary activities." Another states that "changes in teaching and curricula are underway at the secondary level, but are moving at a slower pace at the community college level" (Falcone, L. & Mundhenk, R, 1994, p. 10).
A recent survey of Florida community colleges reinforces these concerns and strongly suggests that Tech Prep education has not yet begun producing the systemic reform underway at the secondary level. The survey was an attempt to gauge how community colleges, all in their second, third and fourth years of federal funding, are preparing for the enrollment of high school Tech Prep completers. This was accomplished by asking the fiscal agency of 22 consortia to have the appropriate community college representative report how they have changed, or planned to change, the general education "common core" courses. The 22 surveys were completed by the following community college personnel: 14 Tech Prep coordinators, 4 deans, 2 vice presidents, 1 health coordinator, and 1 provost. The survey instrument is documented in Appendix A and a listing of the participating Florida community colleges is located in Appendix B.

"Common core" courses were selected for study because they are required of all community college degree recipients in Florida. The Associate of Arts (AA) and the Associate of Science (AS) degrees are the two degrees Florida students may earn at a community college. The AA degree is designed to enable students to transfer to the junior level of a four year college or university if they meet specific requirement imposed by state regulations and/or law. These requirements include courses which develop reading, writing, computational skills, and passing the CLAST exit test requirement (College Level Academic Skills Test).

The community college AS degree is the vocational/technical path of choice for students preparing for employment after graduation. AS degree seeking are not required to take the CLAST exit exam unless they plan to seek admission to the upper division of the university system. AS degree courses typically, though not always, form the basis for articulation agreements with secondary institutions.
Community college general education "common core" courses would seem to be ideal arena to study to see is any substantive changes had occurred as a response the Tech Prep initiative. It could be argued that for genuine and lasting change to occur at the postsecondary level, traditional academic courses such as Freshman Composition and College Algebra must do more for students than preparing them for entrance at a university.

An overwhelming majority of colleges believe that a representative listing of "common core" courses that parallels secondary applied academic courses are appropriate for high school Tech Prep completers as currently offered. This is the case with Freshman Composition, where 82% (18 of 22) colleges, and with College Algebra, where 68% (15 of 22) colleges share this view.

Humanities/Social Science common core courses, on the other hand, provide less certainty with regard to change. Ten colleges (46%) are undecided about the appropriateness of these courses for Tech Prep students; nine colleges (41%) report they are appropriate, and only three (14%) report they are not appropriate.

Generally speaking, colleges in the early stages of Tech Prep implementation tend to move from being undecided about a number of curriculum issues, and move instead to maintaining the status quo at their campus.

When asked to report whether it is better to modify existing "common core" course by infusing SCANS competencies and applied teaching methodologies, rather than developing separate courses for Tech Prep secondary completers, a majority of colleges responded affirmatively (68%) 15 of 22); three said no (14%), and four were undecided (18%).
The belief of infusing the SCANS competencies, unfortunately, does not translate into wholesale modifications, or plans to modify existing "common core" courses. For example, only five colleges (23%) reported that they had undertaken this activity in one or more of "common core" courses. Ten colleges (46%) responded "no" to this question; seven colleges, mostly second and third year sites (32%) reported they were undecided regarding this matter.

The good news about this survey reveals that a majority of colleges, 73% (16), have not developed, or planned to develop, new courses to replace "common core" courses. This is consistent with the view that traditional academic courses should reflect an integration of material which links learning with real-life applications. Most of the minor change activity reported with this survey reflected modifications to existing courses. Freshman Composition and College Math courses were typically modified to include applications for students in AS degree programs. However, an Applied Statistics course has been developed in one college.

The academic domain of Humanities/Social Sciences appears to be the exception to this trend and seems to be ripe for the development of entirely new courses for Tech Prep students. New courses reported include Applied Ethics, Technology and the Humanities, and Critical Thinking.

Judging from comments made by survey respondents, future research might uncover the reasons for the slow pace of change in Florida community colleges. Problems with national and regional accrediting bodies like the Southern Association of Colleges and Schools (SACS), faculty resistance, uninspired college leadership and the
belief that only secondary institutions require systemic change point to problem areas in need of vigorous staff development activity.

This brief survey should not be considered the definitive study on Tech Prep progress in Florida community colleges. After all, Tech Prep education is a "works in progress" and postsecondary institutions have a long and outstanding record of responding positively to the challenges they have faced. Nevertheless, this survey does reinforce the belief that the pace of curriculum change in these colleges must quicken. Secondary students taught in a contextual learning environments should rightly expect the same environment at the local community college. At this point it is safe to speculate that the average classroom in a community college will look and feel the same for incoming secondary Tech Prep completers in the next few years as it does now.

Community colleges are a vital component in Tech Prep education. True educational restructuring will not occur until faculty, staff, administrators and trustees in community colleges commit to working the change process in the same manner as their secondary counterparts. This requires "stepping out of the box" to build new work-based classrooms and adopting applied pedagogical techniques. Judging from the results of this survey, Florida community colleges have not seriously accepted this challenge. It's not too late of course, but a flood of secondary students will be arriving at these colleges very soon. Let's hope community are up to the task of changing to meet their needs.
CITED REFERENCES


APPENDIX A
Community College Tech Prep Survey

Institution: ____________________________________________

Name of Person Completing Survey: ____________________________

Title: ____________________________________________________

Suncom Phone: __________________ Fax: _________________________

1. Does your college believe the following general education "common core" (AA transfer) courses are appropriate for high school Tech Prep completers entering your college?

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>YES</th>
<th>NO</th>
<th>Undecided</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101</td>
<td>Freshman Composition Skills I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMS 1010</td>
<td>Contemporary American Issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HUM 1021</td>
<td>Introduction to Humanities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOH 1012</td>
<td>World Civilizations I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WOH 1022</td>
<td>World Civilizations II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAC 1102</td>
<td>College Algebra</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments: ____________________________________________________

2. Does your college believe it is better to modify existing "common core" courses by infusing SCANS competencies and applied teaching methodologies rather than developing separate courses for high school Tech Prep completers?

☐ Yes  ☐ No

3. Has your college modified or have plans to modify any of the following "common core" courses to serve high school Tech Prep completers?

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>YES</th>
<th>NO</th>
<th>Undecided</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101</td>
<td>Freshman Composition Skills I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMS 1010</td>
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<td>WOH 1022</td>
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</tr>
<tr>
<td>MAC 1102</td>
<td>College Algebra</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments: ____________________________________________________
4. Has your college developed or have plans to develop new courses to replace the following "common core" courses to serve primarily Tech Prep students?

<table>
<thead>
<tr>
<th>Course</th>
<th>YES</th>
<th>NO</th>
<th>Un-decided</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101 - Freshman Composition Skills I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMS 1010 - Contemporary American Issues</td>
<td></td>
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<tr>
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<tr>
<td>WOH 1012 - World Civilizations I</td>
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<tr>
<td>MAC 1102 - College Algebra</td>
<td></td>
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</tr>
</tbody>
</table>

Comments: ____________________________________________________________

List any new courses your college has developed to replace or supplant "common core" courses to serve primarily Tech Prep students: ____________________________________________________________

5. Have you or will you be involving secondary education instructors in the modification of existing courses or development of new courses at your college?
   
   □ Yes  □ No

6. Would you be willing to share modified "common core" courses or new course development with other Florida Tech prep consortia?
   
   □ Yes  □ No

Comments: ____________________________________________________________

Thank you for completing this survey. Please return this survey to:
Dr. Michael Horan, Director
Mid-Florida Tech Prep Consortium
Central Florida Community College
P.O. Box 1388
Ocala, FL 34478-1388
APPENDIX B

COMMUNITY COLLEGE TECH PREP SURVEY

PARTICIPATING INSTITUTIONS

Brevard Community College
Broward Community College
Chipola Community College
Daytona Beach Community College
   Edison Community College
Florida Keys Community College
Gulf Coast Community College
Hillsborough Community College
Indian River Community College
Lake City Community College
   Manatee Community College
Miami-Dade Community College
Okaloosa-Walton Community College
   Palm Beach Community College
Pasco-Hernando Community College
   Polk Community College
Santa Fe Community College
   Seminole Community College
South Florida Community College
St. Johns River Community College
St. Petersburg Community College
   Valencia Community College