Case Study Report
Sinclair Community College/Miami Valley Tech Prep Consortium
Science, Technology, Engineering and Mathematics (STEM)
October 2-3, 2003

Authored by Debra D. Bragg
University of Illinois at Urbana-Champaign

Introduction

The College and Career Transitions Initiative (CCTI) involving Sinclair Community College's Miami Valley Tech Prep Consortium (MVTPC) and its secondary, postsecondary and business partners continues a long commitment to enhancing high school to college transitions in several advanced career and technical education (CTE) fields.

Sinclair Community College (SCC), located in downtown Dayton, Ohio, is the headquarters and fiscal agent for the CCTI project. SCC is a single campus postsecondary institution serving approximately 24,000 students. During 2002-03, over 110,000 individuals participated in college courses, training sessions, and conference center events. The comprehensive curriculum of SCC is comprised of academic divisions in the liberal arts and sciences, fine and performing arts, engineering and industrial technologies, business technologies, allied health technologies, extended learning and human services, and distance learning. SCC administrators take pride in the college's longstanding membership on the board of the League for Innovation in the Community College and in its selection as a Vanguard College of the League for Innovation. SCC officials are enthusiastic about the addition of the CCTI project to its portfolio of initiatives with the League.

The history of SCC is connected with the early days of Dayton's YMCA. As early as 1887, the YMCA began to offer math, free hand, and mechanical drawing classes in a one-room evening school. By 1910 the YMCA courses had grown to include business administration, necessitating a move to a larger downtown facility. By the fall of 1929 the curriculum had expanded even more so, to include a school of Liberal Arts, the Dayton YMCA Office Training School, the Dayton Law School, and the Dayton Technology School, demanding a move to the YMCA's present site. In 1948 the YMCA College became Sinclair College, named after David A. Sinclair, the late-1800s Director of the YMCA. The college was independently operated and separately incorporated as a non-profit institution of higher learning under the laws of the state of Ohio by 1959, conferring numerous associate degrees authorized by the state's board of education. In 1965 the Montgomery County Community College district was formed, a 9-member board of trustees was appointed, and 20 acres of downtown land was acquired for a new campus. The college was officially chartered in March 1966, with Montgomery County voters passing a 10-year, one-mill levy in May of that same year. Additional levies passed in 1975 and 1989, creating a financial commitment to one of the most progressive and well reputed community colleges in the nation.

Today, SCC's concise mission statement demonstrates a commitment to accessible education to enhance individual well being:

We help individuals turn dreams into achievable goals through accessible, high quality, affordable learning opportunities.

Within the state of Ohio, SCC enjoys a special status as the state's oldest community college, as well as being one of the state's largest such institutions. SCC offers the lowest tuition of any Ohio college or university, attracting a diverse student body. One of 24 public community and technical colleges in Ohio, SCC enjoys a stellar reputation in technical education, with engineering and industrial technologies programs being among some of the most widely acclaimed of the college's technical curriculum.

Also noteworthy is the college's long commitment to outcomes assessment and continuous improvement. SCC's Office of Institutional Planning and Research (IPR) assesses questions about the effectiveness and impact of curriculum, administrative operations, and various outreach functions. Faculty uses multiple measures to obtain a holistic picture of instructional effectiveness, particularly in general education. Student peer evaluation, faculty evaluation of student work. student self-evaluation, and internally developed criteria, checklists, and rubrics are endorsed over the use of national standardized tests.

The Miami Valley Tech Prep Consortium

SCC has a strong history of implementing formal articulation processes in numerous technical education fields. The College's early commitment to technical education was evident in its formation of a planning committee in 1992 involving education and business leaders from across the region to develop a response to the state's initial RFP to form tech prep consortia. Chaired by SCC's former president, David Ponitz, the committee included secondary school decision-makers from throughout the region, along with key leaders in the local business community. Successful in its first attempt to secure tech prep funds from the state, the Miami Valley Tech Prep Consortium (MVTPC) began with two associate of applied science (AAS) degree programs in the engineering technology (ET) pathway, one in industrial engineering technologies and the other in electronic engineering technologies. Since that time, pathways in automotive technologies, allied health technologies, and other technical fields have emerged, bringing to eight the total number of tech prep pathways. Each pathway commences at grade eleven and extends to the associate degree with articulated curriculum options in high school. Careful attention is paid to aligning all pathways to academic and industry standards supported by relevant local, state, regional, and national associations. Recent enhancements to the ET pathway include new partnerships with business and industry to create faculty externships, student mentorships, and support for student robotics competitions. Formal articulation options are available for students to pursue baccalaureate degrees (i.e. 2+2+2) at fifteen colleges and universities in Ohio and surrounding states.

One of 28 tech prep consortia in Ohio, the MVTPC is a partnership among SCC (the fiscal agent and physical headquarters), seven Career Technical Education Planning Districts (CTEPDs) serving 58 affiliated public school districts, and hundreds of business partners throughout a six county area in southwestern Ohio. Students who enroll in tech prep have to have completed Algebra I or an equivalent with a grade of C or better, must have attained a minimum 2.0 GPA,

and have junior standing with no academic deficiencies for on-time graduation. Preferences for entering any of the tech prep pathways include computer keyboarding skills and good attendance. Some specific pathways have additional academic pre-requirements, for example biotechnology has two science credits at C or above in biology. Tech prep students enroll in a range of high school settings, including multi-district career-technical centers, comprehensive high schools, and career center satellites in urban, rural and suburban communities. During fall 2003-04, the MVTPC served 2,110 high school students and over 700 tech prep enrollees at SCC. Current enrollment represents an enormous growth from 1993-94 when 45 high school students first enrolled in tech prep.

Recently accomplished, one means by which enrollment is being increased in the tech prep pathways in MVTPC-consortium schools is through a change in the admissions policy for 11th graders, allowing students to be admitted provisionally. This policy enhances high schools' administrative flexibility and discretion for admitting a larger number of 11th grade students while assuring SCC that entrance standards are maintained and that students can transition to college ready to learn, without needed remediation.

The MVTPC's mission statement guides the Consortium's current programs and services:

The Miami Valley Tech Prep Consortium, a partnership among business, secondary and higher education, seeks to strengthen Ohio's workforce competitiveness by facilitating educational change to prepare students for technology-based careers.

During the 1990s, the MVTPC consortium gained national visibility through its involvement in various initiatives sponsored by the U.S. Department of Education, Office of Vocational and Adult Education (USDE/OVAE). The MVTPC was a site for the national evaluation of tech prep conducted by Mathematica Policy Research (MPR), and it participated in longitudinal research studies on tech prep implementation funded by USDE/OVAE's National Research Center for Vocational Education (NCRVE) and the National Centers for Career and Technical Education (NCCTE). The MVTPC's national recognition includes its 1996 award from USDE/OVAE for having the top tech prep initiative in the United States. Additionally, the MVTPC has received acclaim in Ohio by serving as a leader in modeling and disseminating best practices to other consortia and in the development of technical competency profiles (TCPs) that are the framework for tech prep curricula statewide, including the new engineering technologies (ET) TCP. Taking well over two years to develop, the new TCP for ET has broadened to include 14 core competencies (i.e., competencies that undergird multiple engineering disciplines) plus additional competencies in three specialized clusters: design, production, and product/services.

Organization and Governance of the MVTPC

By-laws established by local leaders govern and organize the work of the MVTPC; a governing board oversees local operations, policies, and procedures. Partner organizations see MVTPC as playing a role in solving problems and seeking new approaches to connect local high schools, colleges and employers. SCC recognizes tech prep under the direction of Ron Kindell, Director of the MVTPC, as a core function of the college. Ron Kindell reports directly to the Vice President for Instruction, with tech prep being a standing agenda item on the monthly instructional council agenda.

Approximately 45% of the annual operating budget of the MVTPC comes from federal Carl D. Perkins funds, 35% from state funds and 20% from partner match funds comprised of a fixed fee and an enrollment driven fee generated from an annual payment made by each secondary partner. SCC also pays an annual fixed fee and provides office space and accounting services. Other funding includes fees paid by for-profit businesses for the summer teacher externship program called Teachers in Industry for Educational Support (T.I.E.S.) and state Expanded Enrollment Grants.

Consortium funds are used to support high school and college curriculum improvement, professional development through T.I.E.S., newly developed Contextual Integrated Academic Leadership Teams (CIALTs), college transition services, student and parent orientations, marketing and student recruitment, and various on-going administration, communications and management services.

SCC's Commitment to Tech Prep

SCC's engagement and outreach with respect to tech prep has been multi-faceted and ongoing for some time. Already, the college faculty presents a variety of recruitment activities annually, both on and off campus, and they participate regularly in tech prep curriculum development committees, locally and statewide. Other SCC personnel, including academic advisors and staff members from the Assessment Center, Financial Aid office, Admissions office, Experienced Based Education and Student Records work regularly with the MVTPC in facilitating and supporting unique tech prep activities and services.

At the direction of SCC's Board of Trustees, the SCC Tech Prep Scholarship was begun in 1994, creating a unique incentive for students enrolled in high school tech prep pathways to continue their education at SCC. Students are eligible for the scholarship if they successfully complete a high school tech prep pathway with a minimum graduating GPA of 2.25 and continue in the postsecondary portion of the pathway at SCC. The scholarship is a $3,000 merit-based award that can be applied toward tuition, books and fees. In the first year of the scholarship, $34,774 was given to 31 tech prep students entering SCC, and during the most recent year data were available (2002-03), $264,655 was awarded to 244 tech prep students. For fall quarter of the 2003-04 academic year, $128,749 was awarded to 284 tech prep students. Described by local tech prep leaders as the "central driver" to successes that the Miami Valley has had with tech prep, an impressive $1,099,381.14 dollars have been awarded to 1,262 SCC students since the inception of the Scholarship.

Evaluation of Tech Prep

Since its beginnings the MVTPC has engaged in evaluation prompted by the state's reporting requirements on tech prep student enrollment, transition to college, and non-remediation. (The Ohio Department of Education and Ohio Board of Regents solicit and maintain data on various aspects of tech prep.) In addition, the MVTPC, in cooperation with the SCC's Office of IPR, has undertaken its own studies on the performance of tech prep students compared to same-age non-tech prep students. The two studies yielded statistically significant results on the performance of a matched sample of tech prep and non-tech prep students enrolled at SCC. Results favor tech

prep students on a) passage of the college placement, b) non-remediation, c) passage of the first college level math course, d) cumulative college GPA, and e) retention in college from fall quarter of year one to fall quarter of year two. The second study analyzed retention by college division, showing students in the ET pathway had the highest retention rate (74%) from year one to year two of students in any tech prep pathway. Both studies are available on the MVTPC website at www.mvtechprep.org.

The CCTI Project

Because of the close ties between the region's tech prep initiative and the goals of the College and Career Transitions Initiative (CCTI), the MVTPC was designated to administer the CCTI project. The CCTI project is focused specifically on the ET pathway associated with the Engineering & Industrial Technologies (E&IT) Division of SCC. The largest of its type in Ohio and the third largest in the nation for number of students enrolled in two-year associate degree programs in engineering technology (ET), the E&IT Division enrolls tech prep students in associate degree, certificate or training programs in the following nine areas:

- Automotive Technology
- Tooling & Machining Technology
- Mechanical Engineering Technology and Quality Engineering Technology
- Electronics & Computer Engineering Technology
- Industrial Engineering Technology, and Manufacturing Engineering Technology
- Automation & Control Technology
- Environmental Engineering Technology, Fire Science Technology, and Safety Engineering Technology
- Aviation Technology
- Architectural Technology, Civil Engineering Technology, and Industrial Design & Graphic Technology

Over 50 tenure-line or annually contracted faculty are employed in the E&IT Division, which operates over 100 labs utilizing over $25 million in modern industrial and computer equipment including the $13 million John E. Moore, Sr. Technology Center, home of Automotive, Fire Science, Safety Engineering, and Environmental Engineering Technology programs; a $3.5 million tooling & machining center; a quality control center; a state-of-the-art robotics lab; a computer-aided design/manufacturing (CAD/CAM) system; a high-reliability soldering lab; and state-of-the-art electronics labs.

Also closely affiliated with the ET pathway is the Advanced Integrated Manufacturing (AIM) Center, established in 1993 as a partnership between SCC and the University of Dayton (UD). Initiated with funding from the National Science Foundation's Advanced Technological Education (ATE) program, the AIM Center provides customized professional educational services to manufacturers and educators throughout the Miami Valley. Drawing upon a nation-wide network of partners, the Center strives to improve the competitiveness of the manufacturing sector through mission-critical projects, education and training research; to upgrade the skills of the manufacturing workforce and encourage continuous learning for manufacturing practitioners; and to assist companies in planning and implementing advanced manufacturing technologies, processes and techniques.

<u>Leadership and Partnerships</u>

CCTI Project Director Ron Kindell and Program Manager Meg Draeger describe the MVTPC office as "command central" for tech prep and CCTI. They envision the CCTI as "a wonderful way to refine the tech prep model", resisting the temptation to designate CCTI as new and different from the past. On the contrary, the CCTI is a "value added research and development" activity that is envisioned to "ratchet up" and "refine" tech prep locally. Kindell believes there is value in the MVTPC's building on longstanding partnerships, recognizing that close personal relationships are key to the success of any new collaboration. The lengthy and illustrious history of tech prep, headed up by a politically savvy leadership team, provides for the very real opportunity that this CCTI initiative will get off to a quick start.

From the executive perspective, SCC's president, Steven Johnson, spoke knowledgeably and enthusiastically about the college's commitment to strengthening K-12 education, describing the CCTI as one of several initiatives in the college's growing portfolio to "fulfill a promise" to enhance K-12 education. Demonstrating this commitment, one new initiative involves the creation of Academic Resource Centers (ARCs) in area high schools, including the creation of an ARC in Stebbins High School, one of five high schools participating in the CCTI partnership. The ARC will offer various academic support materials and services, including administering the Accuplacer the college placement exam now used to determine college readiness at SCC. In addition, SCC will fund PLATO software for the ARCs to assist students identified as needing remediation.

President Johnson envisions the SCC's work as extending efforts made by previous SCC presidents, particularly the immediate past president Ned Sifferlin who remains actively engaged in creation of an alternative high school for 2,000 out-of-school youth to be situated in a remodeled corporate facility nearby the SCC campus, President Johnson expressed optimism for the future, foreseeing "an emerging culture of working with high schools in a much stronger way". Speaking to CCTI specifically, he saw value in benchmarking against sister institutions to overcome the tendency to "become isolated". Cognizant of the role SCC plays within the state as a test bed for new innovations, President Johnson spoke proudly of how "others in Ohio look to Dayton as an example for how to coordinate services". Illustrating this point, President Johnson noted that recently Ohio Governor Taft singled out the Miami Valley region as exemplary in coordination practices associated with workforce development. MVTPC Director Kindell explained part of the value of CCTI is the special status it affords the Miami Valley region in raising expectations for partnerships between K-12 and community colleges by demonstrating that "a seamless community" can be emulated across the state.

A commitment to partnerships is also exemplified by including the Ohio Board of Regents (OBR) and the Ohio Department of Education as key partners in the CCTI project. Local leaders understand that SCC and the MVTPC play a special role in Ohio in that ideas created with support from the CCTI project need to be disseminated to other community colleges and tech prep consortia. To ensure the ideas are diffused, the MVTPC includes state leaders of OBR and ODE who administer tech prep statewide to be a member of the local "site involvement team". The reciprocal relationship between the local and state levels created by including OBR and ODE representatives on the site team is thought to facilitate the spread of CCTI-developed

innovations on the state level. The SCC and MVTPC benefit by enhancing their already strong reputations statewide.

Other site improvement team members include SCC's President Johnson, the Office of IPR and the E&IT Division; business and industry; and five high school sites (Centerville High School, Fairmont High School, Stebbins High School, Miami Valley Career Technical Center, and Patterson Career Center). Additionally, the Dean of the E&IT Division appointed an Engineering Cluster Committee comprised of faculty and counselors who works on curriculum. Each school district has a liaison to the CCTI site involvement team, appointed by the superintendent, and each high school partner has a Contextual Integrated Academic Leadership Team (CIALT) started in 2002-03. MVTPC Director Kindell indicated "we're still building the project with high schools." Kindell added that "the academic emphasis has resonated with public school personnel." He is optimistic about the impact CCTI can make in time, once new relationships have been formed. Already at the time of our site visit in October, the CCTI site improvement team had held two meetings, and regular meetings were planned for the remainder of the academic year.

CCTI Project Plans

Unique to this CCTI project, five teams have been identified to provide leadership for planning and implementing the intended outcomes of the project, with one team for each of the five outcomes specified by the League. For example, one team oversees the outcome dealing with remediation, another team works with enrollment and persistence, and so forth. Representatives of the various partner organizations comprise membership on the teams and take responsibility for planning and assessing whether appropriate strategies are implemented to ensure intended outcomes are attained.

As the MVTPC implements its CCTI plans for the ET pathway project, the five established goals of the CCTI improvement plan are to be addressed as follows:

To reduce the need for remediation, the MVTPC plans to update the ET pathway and expand technical and academic dual enrollment options by updating articulation agreements. They will accomplish this goal by engaging SCC faculty with their high school counterparts in aligning course content and developing dual/concurrent credit courses during full-day summits. SCC faculty will participate regularly in curriculum development committees, locally and statewide.

Strategies to reduce remediation include supporting a math dual enrollment option to be initiated with a pilot test of a 100-level ET math course by two partner high schools (Stebbins High School and Fairmont High School), with additional high schools added in future years. Presently, a SCC instructor is mentoring a teacher at each high school to offer the math course in a parallel fashion to SCC, with the goal that participating students will be able to pass MAT 101. The pilot will assess student passage rates and the effectiveness of instructional delivery, and SCC Student Services Division staff will serve as resource personnel. An impact evaluation will be conducted. The plan also includes evaluating current SCC remediation statistics and academic requirements for the ET pathway, beginning fall 2003.

To increase enrollment and persistence, plans call for expanding the Contextual Integrated Academic Leadership Teams (CIALTs) that were first launched during the 2002-03 year to two new high schools during 2003-04. CIALTs involve five-member teams that include faculty from the technical area, math, science and English, and a guidance counselor. Currently, five CIALTs, one for each of the CCTI partner sites. These high school leadership teams include college team members, offering a vertical expansion of the team to include faculty from the math, science, English, and engineering departments. To complete the team, business team members will be folded into the CCTI, so the total will represent the high school, the college, and business. The entire three-year process is intended to create collaborative teams to develop "active building-level tech prep teams that will exhibit leadership in planning, delivering and sustaining contextual integrated teaching styles for mathematics, science and language arts within the context of the defined technical learning program." The ultimate goal of the CIALTs is to facilitate: a) continuous curriculum alignment between secondary and postsecondary education and with business and industry, b) seamless transitions between college and careers, c) coordinated, competency-based learning strategies that emphasize hands-on, experiential discovery within a relevant context, and d) collaborations between educators and practitioners to design and deliver educational modules that support on-the-job-success.

Extending career orientation and exploration activities begun earlier, the MVTPC plans early orientation and outreach services at 8th and 9th grade by working with guidance counselors, teachers and students. High school students are targeted for various on-campus recruitment and orientation activities, including separate on-campus recruitment events for 10th and 11th graders and their parents and teachers. Tech Prep Awareness Days will bring high school sophomores to SCC to see the college connection to tech prep. SCC faculty also organize and lead Junior/Senior Orientation Days for high school students to orient them to the postsecondary portion of their tech prep pathways, engage in team competitions, and familiarize them with related careers. Career coordinators are engaged in career orientation work in various high schools and middle schools, which the MVTPC refers as "pre-tech prep". At the college level, SCC offers a course to orient new students to the ET pathway, emphasizing a broad introduction that will allow students to explore various ET areas and help them make informed decisions about the specific ET field best for them. Also, targeted counseling and support services are planned for college-level students, including preparing individualized learning plans (ILPs) for in-coming at-risk students into SCC's ET pathway. Last, investigations are planned to identify work-based learning opportunities by reviewing mentorship models for ET such as the AIM Center's Students, Teachers, and Mentors Partnerships (STAMP) and adapting the model for high school-level ET students.

To improve academic and skill achievement, the MVTPC plans to expand and improve contextual instructional techniques among academic and technical faculty at the high school and college level. This will occur through participation by a maximum of 10 CIALT members and/or selected faculty in 3-week teacher externships in industry via Teachers in Industry for Educational Support (T.I.E.S.). This 3-week summer program matches educators with employers to experience real world application of knowledge, complete projects for industry, and create curricula to use in the classroom and share with other educators. Two sessions of T.I.E.S are offered each summer, placing educators in industry, public agencies and non-profit agencies. Since 1997, T.I.E.S. has involved nearly 300 high school and college faculty. With CCTI funds,

the MVTPC can now target 70 teachers for T.I.E.S. annually. Curriculum units produced in association with T.I.E.S. are disseminated via the MVTPC website at www.mvtechprep.org. T.I.E.S. participants receive a stipend that is paid, in part, by the host business site. As a bonus, graduate credit is offered at a special rate from the University of Dayton and Wright State University.

Participation is also specified for ET pathway CIALT members in a minimum of one professional development activity dedicated to expanding contextual teaching techniques. This occurs in the form of an annual secondary/postsecondary summit. And, in addition to professional development activities that are expected to translate into enhanced academic and technical skill achievement among students, the MVTPC plans to report SCC placement assessment results of 11th and 12th grade students to their high school teachers, and inform CIALT high school academic teachers in how to interpret and use SCC assessment scores for academic intervention and remediation.

To increase the number of degrees and certificates, the consortium intends to maximize postsecondary program options in ET by updating articulation agreements to a) conform to the new ET TCP profile and b) provide general and program specific "proficiency credit" which entails having high school students take tests and then, upon passing, have SCC sign off on transcripting college credit. This plan represents an enhancement to the previous practice of using articulated courses where no proficiency exam was required. The new approach uses exam proficiency to assign a letter grade. College proficiency credit is motivating to high school students and parents. To execute the articulation agreement, the MVTPC assigned a college instructor to mentor and advise high school instructors on course content and exam format and to administer and grade the proficiency exams.

In addition, the MVTPC intends to provide an orientation for students on the postsecondary dual admissions (2+2+2) option that SCC has struck with the University of Dayton (UD) for the ET pathway. The agreement specifies that once students have completed an engineering technology associate degree, they can move immediately on to UD for engineering technology baccalaureate-degree course work. Articulation agreements for transfer of ET associate degrees have also been forged with Bowling Green, Toledo, Cincinnati, Ohio College of Applied Science, Northern Kentucky, Wright State, Ferris State, Purdue, and others.

Another aspect of increasing degrees and certificates is to assist students with financial aid and college transition and retention services, including emphasizing the SCC Tech Prep Scholarship, the transfer of dual enrollment credits to SCC transcripts, and various other retention strategies currently provided by SCC. Last, the consortium plans to investigate teacher licensure requirements and options for ET graduates considering a teaching career in ET by working with university teacher licensure personnel and the Ohio Department of Education to identify options and disseminate information to ET graduates.

To improve entry into work or further education, the MVTPC plans to expand co-op for ET associate degree students by working with the E&IT Division department chairs and faculty, and by building employer partnerships. The Dayton Chamber of Commerce is interested in enhancing co-op through its recent acquisition of a state grant, with support with grant writing from the MVTPC. The grant will expand opportunities for students to co-op in all 15 ET

programs rather than in about one-half of them, as occurs presently. When asked whether enough co-op placements can be found in the region, the Chamber Director commented that local employers "will come on board" for 2+2 co-op. Co-ops are seen as helpful to the 12th year apprenticeship program offered at Patterson High School, one of the five high schools involved in CCTI.

Evaluation of the CCTI Project

A la Emeril Lagasse, local officials hope the CCTI project will be able to "take the total data collection up a notch". For the first time since its inception over a decade ago, the MVTPC is getting lists of high school students' names with GPAs and social security numbers. They are entering this information into a data file that will be used to track student transition from high school to SCC. Not without challenges, MVTPC Director Kindell spoke of efforts to work cooperatively with high schools to collect new data for CCTI, describing evaluation as "a long journey." Observing that Ohio's new graduation test "trumps everything else", Kindell noted that a key indicator of the success of tech prep pathways is that participating students are academically prepared to enter college without remediation. SCC President Johnson affirmed the importance of evaluation, saying, "This project causes data sharing and research relationships that didn't exist… [There is] value in having data from school partners not available before." MVTPC Director Kindell spoke about utilizing the evaluation component of the CCTI to enhance understanding of the effectiveness of specific practices, such as the pilot math project at Stebbins High School and new articulation agreements awarding proficiency credit.

SCC's Office of IPR is providing technical assistance on evaluation of new practices associated with CCTI, enhancing the basic evaluation design prescribed by the League for Innovation. Because of SCC's capacity for extending the CCTI evaluation to meet local needs, Director Kindell is optimistic about using new evaluative data to understand the impact of specific changes, being able to "fix specific problems, and having greater capacity to "share the good news" about the ET pathway. Hence, the CCTI's emphasis on data, combined with the local expertise of SCC's Office of IPR, an opportunity exists to examine questions about impact that has not be possible in the past. For this reason, local officials anticipate that CCTI will have a positive impact on Dayton, the larger Miami Valley, and possibly other regions of state of Ohio as well.