

Syracuse City



School District



**REPORT OF THE BLUE RIBBON TASK FORCE ON
CAREER AND TECHNICAL EDUCATION
SYRACUSE CITY SCHOOL DISTRICT
DECEMBER 2012**

Prepared by the Career and Technical Assistance Center of New York

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A. Introduction:

In the spring of 2012 Superintendent of the Syracuse City School District engaged the Career and Technical Education Center of NY (TAC) to facilitate the development of a five year plan for Career and Technical Education. The TAC was engaged to achieve the following objectives:

1. Assess the status of the current CTE programs in the district including student performance, facilities, personnel and other relevant outcomes and resources
2. Develop a common understanding on the part of district and building leaders, including those in core academic areas, of National CTE Program Standards, model programs and quality indicators of Career and Technical Education Programs
3. Provide the Superintendent of Schools and the Board of Education with a 5 year plan for Career and Technical Education aligned with the recommendations of the superintendent from the Curriculum, Instruction and Assessment Review of December, 2011 (later amended to align with “Great Expectations: Syracuse City School district Strategic Plan 2012-2017”)

In the summer of 2012 a Blue Ribbon Task Force on CTE (Appendix A) was formed and included representatives from the Business and Industry, nonprofit, labor, postsecondary and government sectors and representatives from the school district. The Task Force met on seven occasions (Appendix B). The agendas for the second and third meetings were to provide contemporary information on CTE programming, research and program models to the Task Force. The final four sessions were devoted to engaging the Task Force in clarifying the issues, identifying priorities and developing this plan which is now offered for consideration by the Superintendent of Schools and Board of Education

B. Where are we: Current CTE Efforts, Opportunities and Challenges?

In order to assess the current status of Career and Technical Education in the Syracuse City School District the TAC conducted a review of the current levels of CTE programming, student performance, facilities and personnel. As part of that process the CTE Technical Assistance Center of New York met with each secondary building principal selected members of the Central Office staff, and middle school administrators(Appendix C),. In addition, meetings were held with two focus groups, one from business and industry and the other from post-secondary institutions—all of which have a relationship with the Syracuse City School District (Appendix D).

Curriculum, Instruction, Assessments

As with all educational institutions, the basics of all programs are *curriculum, instruction and*

assessments. The career and technical education programs have some curriculum documents at various states of formality and completion. In response to the new Regents Initiatives, however, all curricula need to be aligned with the new Common Core State Standards.

The curriculum for Project Lead the Way (PLTW), which is a pre-engineering program, must follow specific guidelines developed through Rochester Institute of Technology. PLTW is in its third year of implementation at Corcoran and its fourth year at Nottingham.

There are “academy” themes in the high schools, but the programs are not necessarily developed with an intentional career focus that is pervasive throughout the academy.

The programs that have gone through the NYS CTE program approval process and the schools for which they are approved are:

- Automotive Technologies (ITC), articulations with Onondaga CC
- Cosmetology (ITC), articulations with Bryant and Stratton
- Culinary Professions (ITC), ProStart articulations with several institutions
- Early Childhood Education (ITC) articulations with Onondaga CC
- Electrical/Pre-engineering (ITC) articulations with Onondaga CC
- Fashion Technology (ITC) articulations with Cazenovia College
- Pre-engineering (Corcoran and Nottingham) articulations with Onondaga CC

These programs all need to be reapproved by June, 2013. These are the only programs specifically aligned with industry endorsed assessments, through which students become eligible for a regents diploma with a technical endorsement. The self-study review process as part of the re-approval will help the district align the curricula, identify industry acknowledged assessments, and provide an opportunity to work with industry and post-secondary partners. Careful thought must be given to which programs should submit to re-approval. Consideration must be given to employment and post-secondary opportunities, student interest and alignment with the Central New York Regional Economic Development Council priority industry areas and the assessment of employment opportunities by the NYS Department of Labor.

While there are CTE certified teachers in all of the secondary buildings, many of the courses offered are dependent on the number of teachers that remain after down-sizing has taken place over the past several years. In selected offerings at ITC the teachers are not CTE certified and the programs are not SED approved. These programs in Computer Science, media and Bio Technology provide significant employment opportunities following participation and completion of postsecondary programs. The following outlines the CTE teachers in each high school:

	Fowler	Nott.	Corc.	Henn.	ITC	Johnson	Total
Technology	2	2	2	2	1	0	9
Business	3	2	1.5	4	0	0	10.5
Cosmetology	1	0	0	0	0	0	1
Electrical	1	0	0	0	0	0	1
Auto Tech	0	0	0	0	1	1	2
Culinary	0	0	0	0	1	0	1
Welding	0	0	0	0	0	new	1
Fashion	0	0	0	0	0	0.4	0.4
Computer Science	0	0	0	0	1*	1	1
Media	0	0	0	0	1*	0	0
Bio Tech	0	0	0	0	1*	0	0
 *Not CTE Certified							26.9

Funding, Facilities, and Equipment

At the start of the 2012-13 school year, ITC and Fowler opened their doors as new facilities with new career and technical education programs.

Decisions about which programs would be housed in the new facilities were a determination made at the Central Office prior to Superintendent Contreras' starting at the District. The cosmetology program moved from the Johnson Center to Fowler. Construction trades were anticipated to be offered at Fowler as well. However, due to the amount of space in the new construction, it was decided that only the electrical trades would be offered.

The other buildings have historically made decisions on programs based on student enrollments in courses and the number of teachers available in the building. There has not, in recent years,

been an administrator with the sole responsibility for coordinating all district CTE programs and initiatives. Therefore, building principals have been making decisions based on what they have determined meet the needs of their students given the resources available.

There is a district-wide facilities master plan, which may change due to the “Great Expectations” Strategic Plan recently presented by Superintendent Contreras and accepted by the Board of Education. Facility planning is conducted by a Joint School Construction Board which has representation from the City of Syracuse and the Syracuse City School District—the projected total for future investments in the high schools is approximately \$200 million. The Superintendent, the Director of Facilities and the School Architect communicate frequently with the City Engineer. While Fowler and ITC have almost completed their renovations, work still needs to be done at Henninger, Corcoran, and Nottingham. Several community based programs are housed at the Johnson Center, as well as alternative education, GED, and credit recovery programs. In its present condition, the Johnson facility would be considered sub-standard for a modern CTE program. Other buildings in the district, which need work, continue to be discussed in the planning as well.

The Syracuse City School District’s allocation of Perkins Funding for the 2012-13 school year is \$300,613. The proposal for this year is based on program and staffing needs at ITC. The funds from the Perkins grant are typically used to support, initiate, or update NYS approved CTE programs. Care will need to be given to monitoring the Perkins reauthorization. The US Department of Education has outlined their change in the priorities and allocations in “**Investing in America’s Future: A Blueprint for Transforming Career and Technical Education**”

For the most part, the principals indicated that the district has been supportive of the programs in the high schools in terms of upgrades for computers and providing materials and supplies. However, as funds have become scarcer, the allocations have been decreased as well. The programs automotive program at the Johnson Center has not had equipment upgrades based on current industry standards for many years. While the welding program had \$100,000 spent on new equipment (ventilation and booths), not all equipment is up to current industry standards.

In some cases, local businesses have offered financial support. For example, Lockheed Martin has provided financial support for Project Lead the Way. At Nottingham High School, there has been a donation of \$10,000 to support a TV studio and a traditional media/broadcasting program.

Feeder Programs and Counseling

There are no district-wide programs or consistent and pervasive expectations to introduce careers at the elementary level. Most commonly introductions to the world of work and careers

would be through the social studies programs. However, with the focus and initiatives on English Language Arts and Math at the K-6 levels, some of those opportunities have been lost.

Technology and Family Consumer Science programs are being reintroduced at the middle school levels this year, but even these programs are not equally available in all schools. The middle level technology programs are focused on pre-engineering.

Naviance, a college and career planning computer program is marketed as a solution to optimize student success, enhance school counselor productivity, and track results for school and district administrators. While there seems to be a high level of acceptance, it is still in the implementation stage, and not consistent throughout the district. No consistent data on CTE student participation in CTE courses or programs, completion rates, or use of post-secondary articulation agreements was available to the consultants. Often this information is dependent on the student management system used by a school district. Data collection will be important for future planning.

Each high school (except for the Johnson Center) indicated that there is a Career Center with a guidance counselor and career specialist to assist students in planning for their 9-12 and post-secondary programs. Students who express an interest in the CTE programs are interviewed through the career center. The appropriateness of the placement into a desired CTE program is determined based on the individual student profile. This process can result in limiting access to CTE. The goal expressed by the principals is to have students capable and on track for graduation. This implies a focus on successful completion of academic courses and passing of Regents examinations. Factors such as AIS and other remediation, limited CTE electives and scheduling limitations can diminish access to CTE. With the exception of ITC, the programs offered in each high school are the only CTE options available to the students in that building, unless they transfer to another school or engage in a shared time option at the Johnson Center. For example, if a student wants to participate in the new electrical trades program at Fowler, the student would have to transfer to that school. Finally, with 26.9 CTE teachers and 10.5 dedicated to business education and 9 dedicated to Technology (Project Lead the Way) only 7.4 teachers (3 are uncertified) are dedicated to other career clusters. All of these conditions place significant limitations on access to CTE programs.

The district has made a commitment to support services for students and the guidance counselor to student ratio is very low in comparison to other NY schools at 250:1. The Counselors report that guidance into CTE is difficult due to limited choices, travel to the shared time option, and the strong focus directed to the buildings on admission to postsecondary degree programs generally associated with a traditional high school course of study.

The district has a High School Graduation initiative grant, currently in year 3 of a 5 year cycle.

The focus is on the prevention, intervention and recovery of students who have withdrawn from school. There is an alternative high school setting that is smaller and individually focused, as well as focused efforts in the buildings to meet the needs of students who may not necessarily fit the full day traditional high school schedule. The availability for students to recover credits in an online format in each high school is a big shift to get students on track for graduation. Student requests for a Certified Nurse Assisting program have been increasing and there is a concern that we have nothing to offer these students in terms of medical technology career prep options.

Students with Special Needs

Students with disabilities in the Syracuse City School District at the high school level have access to and participate in the general education curriculum. The majority of high school students receive IEP services which include resource, consultant teacher and/or prioritized curriculum. Students with the most severe disabilities are provided the general education curriculum which is modified to provide the opportunity to progress. The majority of students with severe disabilities are assessed utilizing the New York State Alternate Assessment.

Access to viable and quality career and technical programs for students with disabilities is challenging. Most students who receive resource, consultant teacher services or prioritized curriculum, find they are fully scheduled with academic classes. Some of the students, particularly those in the prioritized curriculum program, participate in Life Skills. This program utilizes community partners: ARC of Onondaga and the Syracuse Cooperative Federal Credit Union. Students rotate through the programs which emphasize budgeting and job shadowing. Fowler has initiated a Credit Union within the school with the support of this program.

Many high school teachers who work with self-contained students have ensured that their students receive opportunities to participate at job sites in and around the community. These sites include grocery stores, clothing outlets, pharmacies and veterinary offices. The programs emphasize soft skills needed for employment as well as some “on the job” skills. The SCSD also offers three off campus locations for students with moderate to severe disabilities. Project Search is a one year program for students in their last year of high school located at Upstate University Hospital and 12 students attend yearly. The program includes both classroom and various work rotations. Several students have been hired by Upstate upon the completion of the program. OCC and SU on Campus Programs also provide for class time and workplace experience and students may remain in the programs for two to three years.

While these programs provide valuable work and pre-employment skills, the number of students participating is small. Access to viable vocational programming is limited for all students. Students with disabilities have a particularly difficult time accessing programs with certification exams as the end point due to lower reading and math levels. Additional assistive technology can help students compensate for their disabilities but is not functional for all of our students.

Transition planning is a requirement on the IEPs for students older than 15. Currently, most of the transition focuses around employability soft skills such as attendance, resume writing and interviewing skills as opposed to actual CTE classes and job placements. Online programs such as Career Zone are also utilized.

Partnerships: Business/Industry, Post-secondary, and Community

Advisory committees are one of the most common partnerships that career and technical education programs involve in their decision making. The contribution can be anything from providing information on current business/industry practices to working on curriculum alignment projects with post-secondary institutions and providing work experience opportunities for students.

At Fowler High School, there is an advisory council that worked with the school on the program offerings as a part of the renovation project. They met about once a month. The committee is comprised of the principal, vice principal of the academy, a representative of the International Brotherhood of Electricians (apprentice/outreach program), the Vice President of Weydman Electronics, and the district architect. The electrical program has not commenced. Fowler does have a cosmetology program functioning this year

ITC has an ad hoc committee including practitioners from business and industry and post-secondary institutions involved in their programs. They have focused on career experiences, skills assessments, and career fairs.

The Johnson Center did have a program advisory committee with one business representative and one post-secondary representative for each program that was offered at the Center. That committee is not currently in existence.

As evidenced by our discussions with both the Post-Secondary Focus Group and the Business/Industry Focus Group, the Syracuse City School District has a wide variety of partnerships and opportunities offered. Say Yes to Education in Syracuse and Junior Achievement of Central NY, Inc. provide many resources to students, teachers, and counselors in the District.

There is little evidence that all of these opportunities are known district-wide, or that all students have access to the same opportunities. Building principals, guidance counselors, and teachers make decisions regarding visitations, Career Fairs, early college programs, summer opportunities, after school programs, mentors, etc. based on their connections with various agencies. Inventorying these options, coordinating them across schools and providing comprehensive information to school leadership, guidance, staff, students and parents is essential to capitalize on this rich set of options and resources.

A review of the Regional Economic Development Council's plan reflected six Priority Industry Concentrations in the following areas: (1) *Clean Energy and Environmental Systems (CEES)*, (2) *Health, Biomedical Services and Biosciences*, (3) *Financial Services*, (4) *Agribusiness and Food Processing*, (5) *Tourism* and (6) *Advanced Manufacturing*. Forging a partnership with the Council and concentrating CTE program development and offerings in these priority industries makes good sense. This is where the state is placing its economic development bet and regional business, government and nonprofit leaders are leading the way.

Professional Development

The technology teachers that have been involved in Project Lead the Way are provided focused professional development through Rochester Institute of Technology. These teachers receive ongoing training and updating in technology, curriculum, assessment and instructional practice.

Currently, most of the district's professional development is focused on the new Regents Initiatives regarding the Common Core State Standards in ELA and Mathematics, and the Annual Professional Performance Review requirements. CTE teachers receive no dedicated professional development in CTE curriculum, instructional strategies, assessments, working with business and industry or other elements designed to strengthen their programs. Professional development for CTE teachers is self-guided.

If there is collaboration between the CTE teachers and the core academic area teachers, it is usually on a collegial basis rather than with an intentional focus. This would need to be addressed if the district were to consider approving math, ELA, science or social studies integrated credits through CTE programs.

It was noted that there are few opportunities for teachers to visit business and industry to develop an understanding of current expectations of the work place. These opportunities are limited not only for CTE teachers, but to other K-12 teachers as well.

Programs of interest prior to the study

In our conversations with building administrators, we asked, "Are there any programs that you don't offer your students that you wish you could, why?" Most CTE programs are concentrated at the 11th and 12th grade levels. It was noted that CTE feeder programs in the middle schools, as well as program opportunities for 9th and 10th grade students would enhance engagement and relevance for all students. The most compelling arguments about new programs came from guidance counselors who felt strongly about expanding the portfolio of CTE options for students. They lamented the loss of options for students and their inability to provide programs to address career interests. The counselors spoke strongly about the need to use CTE as a

“hook” to capture student interest and retain them until graduation.

C. Central New York Priority Industry Concentrations and Labor Market Opportunities

Based on the Summary of Central New York Regional Economic Development Council Strategic Plan Priority Industry Concentrations the following six areas should be career clusters included in priorities for the CTE programs of the Syracuse City School District. Additional priorities have been identified by the New York State Department of Labor. The Blue Ribbon Task Force developed a CTE Program and Employment Area Crosswalk (Section F.) and identified eleven cluster priorities areas.

CNY Priority Industry Concentrations

- **Clean Energy and Environmental Systems** – Central New York has the 8th highest concentration of private sector “green jobs” of any region in the country and is the home to NYS’s Center of Excellence in Energy and Environmental Systems. The following systems include products and services that improve energy efficiency and indoor environmental quality in green buildings:
 - **Biomass Thermal Energy Systems:** Technologies and services (including supply chains of raw materials from local sources) that utilize woody biomass to produce thermal energy.
 - **Clean and Renewable Energy:** Advancements that reduce emissions from fossil fuels, and deployment of solar and wind technologies to produce power from local sources.
 - **Water Resources:** Systems that leverage regional strengths in green infrastructure, waste water treatment, drinking water supply, remediation of polluted water bodies, and access to abundant quantities of fresh water.
 - **Controlled Environment Agriculture:** Systems that combine regional strengths in building technologies and agriculture to provide food security, locally grown protein and vegetables, reduction in carbon footprint, renewable energy, and carbon sequestration.
 - **Nuclear Energy:** CNY is one of only three regions in New York State with nuclear power plants, which have the potential to be an important strategic asset, depending on state and federal energy policies.

- **Health and Biomedical Sciences** – Our region’s hospitals directly employ more than 23,000 people and another 3,500 are employed in private, high-tech biomedical companies with average wages approaching \$70,000, nearly double the region’s median wage. CTE programs will reflect the capacity to pursue a pathway to:
 - Health and Biomedical Services
 - Large number of acclaimed health care institutions,
 - High quality academic medical and nursing colleges

- Medical technology companies,
- Higher education institutions with research capability

Biosciences

- University level biotechnology and life sciences research and development,
 - Biomedical services,
 - Pharmaceutical manufacturing,
 - Manufacturing of analytical instruments and medical devices,
 - Research, testing, and medical laboratories
- **Financial Services** – This industry employs more than 24,000 people within the existing labor market and has grown as financial services and insurance firms look for lower-cost locations for back-office operations. The areas of focus in Central New York are specific to:
 - Cybersecurity
 - Insurance
 - **Agri-business and Food Processing** – NYS is the third-largest producer of fluid milk and commodity crops represent more than \$1 billion in sales alone. Central New York is a significant contributor and increasingly focused on value-added opportunities for agri-business. Agri-business programs should develop relationships with business and post-secondary institutions based on the following statistics about Central New York:
 - 2nd largest producer of corn for silage
 - 3rd largest fluid milk producer in the country
 - 5th largest producer of equine animals
 - 6th largest producer of fruits, tree nuts, berries
 - 7th largest producer of Christmas trees
 - 8th largest producer of vegetables for market
 - **Advanced Manufacturing** – Manufacturing represents 10% of the region’s total employment and subsectors such as digital electronics, radar and sensor systems serve expanding global markets for security, information technology, and defense. Specific areas of focus should include:
 - Digital and Electronic Devices
 - Metals Production and Manufacturing
 - Precision Manufacturing
 - **Tourism** – Tourism is a \$1 billion industry in Central New York, and current global economic conditions, including the weak dollar, create opportunities for our region to

draw additional international visitors across our shared boundary with Canada and from entry points downstate. While the Syracuse City School District offers one Culinary Arts Program, additional “hospitality” programs could include:

- Conventions
- Sporting Events
- Leisure Travel
- Arts and Culture
- Special Events
- Hospitality Services

D. Blue Ribbon Task Force Recommended Strategic Vision and Goals

Mission: *Build, support, and sustain a CTE program in collaboration with business, labor and post-secondary partners to provide relevant and rigorous courses of study based on contemporary industry and academic standards that prepare students for success in education, careers and citizenship in a global society.*

Vision: *The SCSD will offer “gold standard” CTE programs preparing all students to be career and college ready.*

Major Goals and Key Recommendations

1. Standards

The SCSD will develop and provide a career education program for all students grounded in the academic standards embodied in the Common Core State Standards and Regents assessments (PARRC), 21st Century Employability Skills and industry based technical Skills.

a. Complete a rigorous curriculum crosswalk for all CTE programs

All Career and Technical Education Programs will have a rigorous curriculum crosswalk to the Common Core State Standards, Regents (PARRC) Assessments and the Common Career Technical Core Standards

b. Provide CTE completers with access to an industry approved credential

All students completing an approved CTE program of instruction will have access to a technical assessment leading to an industry approved credential. Upon meeting all Regents graduation requirements, students will be able to earn a Regents Diploma/Regents Diploma with Advance Designation with a Technical Endorsement.

c. Establish and deploy an employability profile/portfolio

Students in every career cluster will develop industry validated 21st century employability skills embodied in the 12 Career Ready Practices of the Common Career Technical Core¹ (Appendix E), receive periodic feedback and leave school with an employability portfolio.

d. Provide a comprehensive college and career professional development program for all PreK-12 and related faculty

Ensure that CTE and academic related faculty have the skills to deliver, reinforce and assess Common Core, technical and employability standards within daily instruction.

2. Program Pathways

The SCSD will provide all students with multiple pathways to graduation consistent with the National Career Clusters Model and provide a coherent set of learning opportunities for development of career knowledge, academic and technical skills and transitions to a selected pathway.

a. Integrate career awareness into the PreK-8 curriculum district wide

The PreK-8 curriculum will include age appropriate and intentionally delivered opportunities for students to develop an understanding of the importance and value of careers and jobs and to develop a graduation plan based upon personal interest/career cluster area.

b. Infuse STEM knowledge concepts and understandings in the PreK-8 curriculum district wide

The PreK-8 curriculum will offer interdisciplinary instruction introducing and connecting ELA and Science, Technology, Engineering and Math (STEM) using a nationally validated curriculum model.

c. Provide every middle level student with applied learning experiences

¹ National Association of State Directors of Career and Technical Education Consortium

Each middle level program will provide daily opportunities for students to participate in practical learning opportunities which foster career awareness and exploration and an applied opportunity in STEM and other career clusters.

d. Implement a modified Career Academy model

Each high school will have career-themed academies related to the employment opportunities and needs of the region, state, and nation and the opportunity for students to participate in related NYS approved CTE programs with integrated academics resulting in a technical credential and technical endorsement on their Regents diploma.

The Academies will be small learning communities established consistent with the Career Clusters/Pathway model² with a focus on the priority business areas of the Central New York Regional Economic Development Council, high priority industry areas.

e. Provide Early College CTE opportunities

Expand early college opportunities to students pursuing career education, which would accelerate a student's opportunities to earn dual credits towards an Associate's Degree.

f. Complete the re-approval selected existing approved programs

Evaluate and renew the program approval for those existing and effective CTE programs within in the district.

BRTF Recommendations for Career Cluster Priorities

- Finance
- Health Sciences
- Hospitality and Tourism
- Agriculture Food and Natural Resources
- Human Services
- Information Technology
- Manufacturing
- Science, Technology, Engineering & Mathematics
- Architecture and Construction
- Transportation Distribution and Logistics
- Business Management and Administration

The Task Force in making these recommendations considered the Central NY Regional Economic Development Plan, Department of Labor High Need Careers and the fastest growing jobs in Central NY.

Further, the Task Force recommends that each CTE program include a strong entrepreneurial focus.

² National Association of State Directors of Career and Technical Education Consortium

3. Business/Industry/Economic Development/ Labor/ Post-Secondary Partnership Council

The SCSD will work with business, industry, economic development, labor and post-secondary representatives to establish a Partnership Council to develop career education programs that are academic and technically rigorous, aligned with local state and national employment needs and opportunities and provide:

- Multiple authentic opportunities for student learning and access to the trades and professions.
- Students with articulated programs of study leading to completion of certificate, apprenticeship and degree programs without the need for remediation.

Leadership of the Partnership Council will be provided by the Superintendent of Schools and leaders from the business/ industry and postsecondary communities who will serve as co-chairs

a. Create a dedicated CTE leadership position

Develop leadership infrastructure within the district to coordinate CTE program development and implementation and serve as the primary link to the Partnership Council and other supportive partners.

b. Create and support the Advisory Boards for CTE programs

In conjunction with the Partnership Council, develop and support career program advisory committees for each CTE approved program in the district and meet with them regularly to seek advice on curriculum, equipment and industry standards.

Business/Industry/Economic Development goals

c. Inventory and evaluate the effectiveness of current SCSD partnerships with business/labor

Inventory, evaluate and develop existing business/labor relationships while continuing to develop new and more effective relationships to the benefit of students of the SCSD and business and industry.

d. Create a dedicated work based learning leadership team

Develop the district-wide and building level leadership and coordination infrastructure to find, establish and implement high quality Work Based Learning opportunities for students.

e. Provide opportunities for workplace visitations, internships and other work based opportunities

Provide opportunities for students (academic and CTE) to visit local employers and view the work setting to explore careers and explore work opportunities.

f. Assist in the promotion of industry standards to teachers.

Provide a variety of opportunities for teachers to come to know the technologies, climate, culture and market conditions of local employers.

Post-Secondary/Labor Goals

g. Inventory and establish standards for articulation agreements

In collaboration with the Partnership Council, inventory and continue to develop dual credit and advanced standing articulation agreements for the benefit of students who complete approved CTE programs.

h. Expand linkages with the trades to foster increased apprenticeship opportunities

Expand the relationships with Trade Unions to foster seamless transitions to apprenticeship programs for trade bound students.

i. Create mechanisms to coordinate college visitation opportunities for students

Provide coordinated opportunities for all students to visit college campuses and explore programs and facilities related to their career interests.

4. Access

The SCSD will provide students and families with the information required to make informed choices about education and careers and ensure that all students have access to desirable options that expand rather than limit their postsecondary choices.

a. Ensure equity of access in student CTE program selection

Schools, academies and CTE programs will not have any selective admissions criteria.

b. Expand opportunities for students to select CTE options

In making the transition from middle school to high school students should be allowed to demonstrate their career interests through selection of programs and schools and those requests should be honored.

c. Promote all secondary programs, including CTE, as equally rigorous pathways for high school students

Provide parents and students with information using various media, middle school presentations, and visitation to Career Education programs to explain program quality, opportunity for post-secondary education and paths to employment

d. Create transfer options and limit new enrollment in upper grades for CTE students

Students should be allowed to transfer between CTE programs in the 9th and 10th grades as their interests change or wane. Changes in 11th and 12th grade should be discouraged to ensure on- time graduation.

e. Monitor CTE admissions, enrollment and performance data over time

Collection of CTE data should be part of the core of the district student information system, provide the data required for state reporting, allow for reflection on student performance and drive instructional practice in CTE.

5. Infrastructure

The district will ensure that the facility, staff, equipment and supplies and materials support state-of-the-art CTE programs in the district's schools.

a. District administration must develop a comprehensive implementation plan to address and meet all of the infrastructure implications of the CTE Strategic Plan. Key components of the implementation plan should include:

- Renovations and additions to facilities
- Expansion/reallocation of staffing
- Equipment purchase and acquisition
- Ongoing material and supplies

b. Establish a Career High School

To provide for program expansion/growth and/or student population plan for a Career High School guided by The Partnership Council to support programs which require a high specialization in facility, equipment and software support.

WORKING DOCUMENT

E. Goals and Objectives Implementation Guide

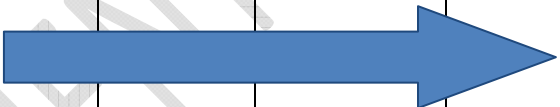

WORKING DOCUMENT

- 1. Standards-** The SCSD will develop and provide a career education program for all students grounded in the academic standards embodied in the Common Core State Standards and Regents assessments (PARRC), 21st Century Employability Skills and industry based technical Skills.

Strategy	Who	2012-13	2013-14	2014-15	2015-16	2016-17
1.a Complete a rigorous curriculum crosswalk for all CTE programs- All Career and Technical Education Programs will have a rigorous curriculum crosswalk to the Common Core State Standards, Regents (PARRC) Assessments and the Common Career Technical Core Standards	Dir Sec. Programs CTE Coordinator Self Study Team Advisory Comm. Tech. Assistance Center (TAC)					
1.b Provide CTE completers with access to an industry approved credential - All students completing an approved CTE program of instruction will have access to a technical assessment leading to an industry approved credential. Upon meeting all Regents graduation requirements, students will be able to earn a Regents Diploma/Regents Diploma with Advance Designation with a Technical Endorsement.	Principals Guidance Industry Partners Partnership Council CTE Coordinator TAC					
1.c Establish and deploy an employability profile/portfolio- Students in every career cluster will develop industry validated 21 st century employability skills embodied in the 12 Career Ready Practices of the Common Career Technical Core, receive periodic feedback and leave school with an employability portfolio.	Partnership Council Principals CTE Coordinator Teachers Guidance					
1.d Provide a comprehensive college and career professional development program for all PreK-12 and related faculty- Ensure that CTE and academic related faculty have the skills to deliver, reinforce and assess Common Core, technical and employability standards within daily instruction.	CTE Coordinator Principals Director of Staff Development TAC					

2. Program Pathways-The SCSD will provide all students with multiple pathways to graduation consistent with the career cluster model and provide a coherent set of learning opportunities for development of career knowledge, academic and technical skills and transitions to a selected pathway.

Strategy	Who	2012-13	2013-14	2014-15	2015-16	2016-17
2. a Integrate career awareness into the PreK-8 curriculum district wide -The PreK-8 curriculum will include age appropriate and intentionally delivered opportunities for students to develop an understanding of the importance and value of careers and jobs and to develop a graduation plan based upon personal interest/career cluster area.	Principals Subject Coordinators					
2.b Infuse STEM knowledge concepts and understandings in the PreK-8 curriculum district wide -The PreK-8 curriculum will offer interdisciplinary instruction introducing and connecting ELA and Science, Technology, Engineering and Math (STEM) using a nationally	Principals Coord. of Science and Tech Sub. Coordinators Faculty TAC					
2.c Provide every middle level student with applied learning experiences -Each middle level program will provide daily opportunities for students to participate in practical learning opportunities which foster career awareness and exploration and an applied opportunity in STEM and other career clusters.	Dir. Sec Programs CTE Coordinator Principals Faculty					
2.d Implement a modified Career Academy model -Each high school will have career-themed academies related to the employment opportunities and needs of the region, state, and nation and the opportunity for students to participate in related NYS approved CTE programs with integrated academics resulting in a technical credential and technical endorsement on their Regents diploma. The Academies will be small learning communities established consistent with the Career	Partnership Council Principals CTE Coordinator Coordinator SLC Sub. Coordinators Guidance Faculty TAC					

Clusters/Pathway model ³ with a focus on the priority business areas of the Central New York Regional Economic Development Council, high priority industry areas.						
2.e Provide Early College CTE opportunities- Expand early college opportunities to students pursuing career education, which would accelerate a student's opportunities to earn dual credits towards an Associate's Degree.	Partnership Council Dir. Sec. Programs CTE Coordinator Coord. HSGI College Partners					
2.f Complete the re-approval selected existing approved programs- Evaluate and renew the program approval for those existing and effective CTE programs within in the district	Dir. Sec Programs Principals & Faculty Coordinator SLC Self Study Team TAC					



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³ National Association of State Directors of Career and Technical Education Consortium




3. Business/Industry/Economic Development/ Labor/ Post-Secondary Partnership Council-The SCSD will work with business, industry, economic development, labor and post-secondary representatives to establish a Partnership Council to develop career education programs that are academic and technically rigorous, aligned with local state and national employment needs and opportunities and provide:

- Multiple authentic opportunities for student learning and access to the trades and professions.
- Students with articulated programs of study leading to completion of certificate, apprenticeship and degree programs without the need for remediation.

Leadership of the Partnership Council will be provided by the Superintendent of Schools and leaders from the business/ industry and postsecondary communities who will serve as co-chairs.

Strategy	Who	2012-13	2013-14	2014-15	2015-16	2016-17
3.a Create a dedicated CTE leadership position- Develop leadership infrastructure within the district to coordinate CTE program development and implementation and serve as the primary link to the Partnership Council and other supportive partners.	Super. & Board of Education					
3.b Create and support the Advisory Boards for CTE programs- In conjunction with the Partnership Council, develop and support career program advisory committees for each CTE approved program in the district and meet with them regularly to seek advice on curriculum, equipment and industry standards.	Partnership Council CTE Coordinator CTE Faculty Business Partners					

<p>3.c Inventory and evaluate the effectiveness of current business/labor partnerships -Inventory, evaluate and develop existing business/labor relationships while continuing to develop new and more effective relationships to the benefit of students and business and industry.</p>	<p>Partnership Council CTE Coordinator Principals Teachers</p>	
<p>3.d Create a dedicated work based learning leadership team-Develop the district-wide and building level leadership and coordination infrastructure to find, establish and implement high quality Work Based Learning opportunities for students.</p>	<p>Board of Education Superintendent Dir Sec. Programs Principals</p>	
<p>3.e Provide opportunities for workplace visitations, internships and other work based opportunities Provide opportunities for students (academic and CTE) to visit local employers and view the work setting to explore careers and explore work opportunities.</p>	<p>Partnership Council CTE Coordinator WBL Coordinators Principals</p>	
<p>3.f Assist in the promotion of industry standards to teachers-Provide a variety of opportunities for teachers to come to know the technologies, climate, culture and market conditions of local employer</p>	<p>Partnership Council Dir. Sec. Programs Dir. Staff Dev. Principals</p>	



<p>3.g Inventory and establish standards for articulation agreements-In collaboration with the Partnership Council, inventory and continue to develop dual credit and advanced standing articulation agreements for the benefit of students who complete approved CTE programs.</p>	<p>Chief Academic Officer Dir. Sec. Programs CTE Coordinator Coordinator HSGI Principals Dist. Legal Office</p>					
<p>3.h Expand linkages with the trades to foster increased apprenticeship opportunities-Expand the relationships with Trade Unions to foster seamless transitions to apprenticeship programs for trade bound students.</p>	<p>Partnership Council CTE Coordinator WBL Coordinators</p>					
<p>3.i Create mechanisms to coordinate college visitation opportunities for students-Provide coordinated opportunities for all students to visit college campuses and explore programs and facilities related to their career interests.</p>	<p>Partnership Council Coordinator HSGI Say Yes to Ed. Guidance</p>					

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4. **Access**-The SCSD will provide students and families with the information required to make informed choices about education and careers and ensure that all students have access to desirable options that expand rather than limit their postsecondary choices.

Strategy	Who	2012-13	2013-14	2014-15	2015-16	2016-17
4.a Ensure equity of access in student CTE program selection -Schools, academies and CTE programs will not have any selective admissions criteria.	Board of Education Superintendent					
4.b Expand opportunities for students to select CTE options -In making the transition from middle school to high school students should be allowed to demonstrate their career interests through selection of programs and schools and those requests should be honored.	Board of Education Superintendent					
4.c Promote all secondary programs, including CTE, as equally rigorous pathways for high school students -Provide parents and students with information using various media, middle school presentations, and visitation to Career Education programs to explain program quality, opportunity for post-secondary education and paths to employment.	Board of Education Superintendent Principals CTE Coordinator Comm. Coordinator All faculty, guidance and school staff					
4.d Create transfer options and limit new enrollment in upper grades for CTE students -Students should be allowed to transfer between CTE programs in the 9 th and 10 th grades as their interests change or wane. Changes in 11 th and 12 th grade should be discouraged to ensure more on time graduation.	Board of Education Superintendent Dir. Sec. Programs CTE Coordinator Principals					
4.e Monitor CTE admissions, enrollment and performance data over time -Collection of CTE data should be part of the core of the district student information system, provide the data required for state reporting, allow for reflection on student performance and drive instructional practice in CTE.	Principals Guidance CTE Coordinator School Acc. Office					

5. Infrastructure-The district will ensure that the facility, staff, equipment and supplies and materials are adequate to support a contemporary CTE program in the district’s schools

Strategy	Who	2012-13	2013-14	2014-15	2015-16	2016-17
<p>5.a District administration must develop a comprehensive implementation plan to address and meet all of the infrastructure implications of the CTE Strategic Plan. Key components of the implementation plan should include:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Renovations and additions to facilities <input type="checkbox"/> Expansion/reallocation of staffing <input type="checkbox"/> Equipment purchase and acquisition <input type="checkbox"/> Ongoing material and supplies 	<p>Superintendent Director Facilities Sr. Dist. Staff CTE Coordinator</p>					
<p>5.b Establish a Career High School-To provide for program expansion/growth and/or student population plan for a Career High School guided by The Partnership Council to support programs which require a high specialization in facility, equipment and software support.</p>	<p>Partnership Council Board of Education Superintendent Dir. Sec. Programs CTE Coordinator</p>					

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F. CTE Program and Employment Area Crosswalk

National Career Clusters	Syracuse Programs	Economic Dev. Council	DOL High Need Careers	CNY Fastest Growing Jobs
1. Agriculture, Food and National Resources		<ul style="list-style-type: none"> • Clean Energy and Environmental Systems • Biomass Thermal Energy Systems • Clean and Renewable Energy • Water Resources • Controlled Environmental Agriculture • Agribusiness and Food Processing 	<p><i>Agriculture and food production is an important industry in Central New York and is a focus of many local economic development organizations. Company interest lately has been especially centered in dairy/milk/cheese processing facilities. There is increased emphasis on buying local produce.</i></p>	
2. Architecture and Construction	Electrical/Pre Engineering		<p><i>The architecture and construction sectors have not fully rebounded from the recession here in Central New York. Commercial construction, especially in the City of Syracuse, seems to be rebounding faster than residential construction. The construction sector has an aging workforce with not a lot of new workers training for these occupations. Apprenticeship training is an important avenue of entry into the construction occupations. Demand for skilled construction workers (i.e. welders, plumbers, carpenters) will be good in the long-run both locally and nationally. There are still not as many women in the construction trades as there are men. There are many good paying jobs within the architecture and construction sectors and opportunities</i></p>	

			<i>for self-employment. Green-related weatherization, remediation, and new construction jobs are also growing within the construction field.</i>	
3. Arts, A/V Technology & Communications	Media		<i>There is a big push in the City of Syracuse and smaller cities such as Auburn to welcome and expand the arts and artists to these areas and expand the cultural offerings of these cities to further make them vibrant communities. There is still high competition within the arts, journalism and entertainment fields and pay can vary widely. Journalism is turning to more digital formats versus print media.</i>	
4. Business Management & Administration			<i>There is always demand for individuals with smart/savvy business skills to run existing firms or start new enterprises. There is increased competition due to the recession and layoffs of middle managers. Still a popular area of study for students.</i>	
5. Education and Training			<i>Education and training is a large and important sector in Central New York at both the private and public levels. There is demand for constant training throughout the work lives of today's workers, especially with changing technology. There are also increased retraining needs for local workers who have been laid off, especially from the manufacturing sector. In the Central New York economy there is still a glut of public school teachers and assistants/aides who have been laid off and are looking for work. Education is still a popular field of study for students. Increasing demands and accountability are being placed on today's teachers.</i>	
6. Finance		• Cyber security	<i>Finance is a smaller industry here in Central New York</i>	

		<ul style="list-style-type: none"> • Insurance 	<p><i>and employment in the sector has been stable over the year. There are high-paying jobs within the sector. Increased employment at various credit unions. Some consolidation in the banking industry is occurring. Greater need for financial workers to help with retirement planning.</i></p>	
7. Government & Public Administration			<p><i>Government is a large sector in Central New York, especially at the local level. State and federal positions are smaller in numbers. Budget cuts and decreasing revenue streams still are leading to cutbacks, especially at the local levels. Government has an aging baby boomer workforce who will be retiring over the next several years which will create opportunities for new entrants. Oftentimes more unionization, protection, and worker benefits in the public sector versus the private sector. Reliance on civil service tests for hiring and promotional opportunities.</i></p>	
8. Health Science	Bio Technology	<ul style="list-style-type: none"> • Health and Biomedical Services • Biosciences 	<p><i>Health is a large, important, and growing sector in the Central New York economy. There are job opportunities at many varying education, pay, and skill levels in this sector. Demand is especially strong in the local economy for registered nurses, dermatologists, and mental health professionals. Demand at various doctors' offices and hospitals have been strong. Demand for biomedical and biotechnology positions is growing.</i></p>	<ul style="list-style-type: none"> • Physical Therapist Aides • Physician Assistants • Pharmacy Technicians • Physical Therapist Assistants • Dental Hygienists • Medical Assistants • Physical Therapists • Medical Scientists
9. Hospitality & Tourism	Culinary	<ul style="list-style-type: none"> • Convention Planning and Services 	<p><i>The hospitality and tourism sector is still rebounding from the recession. Many economic development groups in the area are putting a strong emphasis on</i></p>	

		<ul style="list-style-type: none"> • Sporting Events Planning and Services • Leisure Travel • Special Events Planning and Services • Hospitality Services 	<p><i>this sector. Hotel development in the Central New York region remains strong. There is oftentimes high turnover in the restaurant industry. Wages tend to be a bit lower in this cluster.</i></p>	
10. Human Services	<p>Cosmetology Early Childhood Education Fashion</p>		<p><i>Good demand for human services workers in Central New York as the need for these types of services increase. More people seeking help, an aging population base, people living further away from their family unit and support systems, and higher unemployment all help to increase the need for these types of workers. Wages tend to be lower in this sector.</i></p>	<ul style="list-style-type: none"> • Personal & Home Care Aides • Fitness Trainers & Aerobics Instructors • Home Health Aides
11. Information Technology	<p>Computer Science</p>		<p><i>Demand in information technology is growing with increased computer reliance and greater social and digital communication needs. This industry includes many good paying, skilled occupations. Workers in this field must constantly keep up with technological changes and new programs. Not enough new workers are entering these technical fields.</i></p>	<ul style="list-style-type: none"> • Network Systems & Data Communications analysts
12. Law, Public Safety, Corrections and Security			<p><i>Demand for workers in this industry will be good although budget cuts and declining revenue streams could impact overall budgets. Greater legal complexities and increased need for security will help the industry.</i></p>	
13. Manufacturing		<ul style="list-style-type: none"> • Digital and Electronic 	<p><i>Manufacturing represents 20% of all wages outside the NYC metropolitan area and the NYS advanced</i></p>	

		<ul style="list-style-type: none"> • Devices • Metals Production and Manufacturing • Precision Manufacturing 	<p><i>manufacturing sector is growing. In 2009, the NYS Comptroller's Office reported that "as of 2008, there were over 250,00 high tech industry jobs upstate and 44 percent were in the most advanced technology areas." According to the NYSDOL, there will be almost 10,000 annual job openings for various occupations within the advanced manufacturing field for the period of 2012-18. Nationally, there are over 600,000 openings today in advanced manufacturing.⁴</i></p>	
14. Marketing			<p><i>Still a competitive sector locally as the region is recovering from the effects of the recession but the long-run outlook should be good.</i></p>	
15. Science, Technology, Engineering & Mathematics	Project Lead the Way		<p><i>Strong demand for these skilled occupations and industries and not enough new workers are training in these fields. STEM jobs usually pay well above the average wage for the region</i></p>	<ul style="list-style-type: none"> • Environmental Scientists & Specialists, incl. Health • Environmental Science & Protection Technicians, incl. Health
16. Transportation, Distribution & Logistics	Automotive Technologies		<p><i>Good demand for this sector in Central New York due to our central location in the state and access to Lake Ontario. Road transportation and warehousing is doing ok. There is increased demand for tractor trailer truck drivers. Air transportation is still weak.</i></p>	

⁴ Manufacturers Association of Central New York

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Appendix A

BLUE RIBBON TASK FORCE CAREER AND TECHNICAL EDUCATION

Business and Higher Education

Name:	Organization:	Title:
Greg Lancette	Building Trades	President
Kit McDonald	Syracuse Research Corp.	Director of Human Resources
Paul Tremont	Syracuse Research Corp.	President
Troy Scully	Lockheed Martin	Senior Manager, Communications & Public Affairs
Wanda M. Thompson	Upstate University	Senior Vice President for Operations
Chris Payrot	Mayor's Office	Director of Planning and Sustainability
Melanie Littlejohn	National Grid	Regional Executive Director
Laurie Black	20/20	Administrator
Van Robinson	Common Council	President
Walt Dixie	Jubilee Homes	Executive Director
Tim Penix	Educational Opportunity Center	Vice President
Anne Marie Buerkle	US Congress	Congresswoman
Kristen Gillibrand	US Senate	Senator
Rick Beal	Environmental School of Forestry	Assistant Dean, Educational Outreach
Mark Lesselroth	Brenner Business Development	Principal

Syracuse City School District

Sharon Contreras	SCSD	Superintendent of Schools
Laura Kelley	SCSD	Chief Academic Officer
Brian Nolan	SCSD	Director of High School and Career and Tech. Ed.
Ella Briand	SCSD	Coordinator of SLC
Steven Swift	SCSD	President, Board of Education
Margaret Morone-Wilson	SCSD	Director of Staff Development
Nancy Crawford	SCSD	Assistant Director of Special Education
Debbie Howe-Tennant	SCSD	Coordinator for HSGI
Patrick Ruddy	SCSD	Special Education Teacher
Gwendolyn Maturo-Grasso	SCSD	English Teacher

Cindly Lisenko	SCSD	Mathematics Teacher
Laurie Grulich	SCSD	Science Teacher
Jim McGinty	SCSD	Technology Teacher
Ed Blasland	SCSD	Business Teacher
Rob Diflorio	SCSD	Principal, Henninger High School
Matt Williams	SCSD	Principal, ITC
John Dittman	SCSD	Principal, Johnson Center
Pamela Odom	SCSD	Principal, Clary Middle School
Mike Foley	Syracuse Teachers Ass.	Vice President
Bob Shepard	SCSD	Automotive/CTE Teacher

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Appendix B

Meeting Dates and Agenda Items

August 24, 2012- Task Force Orientation

- I. Introductions and Review of the Charge: Ms. Sharon Contreras, Superintendent of Schools
- II. Review of the Planning Proposal: Edward Shafer, CTE Technical Assistance Center of NY,

September 13, 2012

- I. Education and Business Engagement, Hans Meeder, Meeder Consulting
- II. College and Career Ready, Carol Zygo
- III. Transition from Vocational Education to CTE and Relevant Research, Ed Shafer
- IV. CTE, the Common Core and the Power of Integrated Academics, Kathy Finnerty, Oswego BOCES
- V. National Career Cluster Standards and the National Common Career Technical Core, Ed Shafer
- VI. CNY Labor Market Information

September 27, 2012

- I. STEM Education in Urban Schools, Dr. Christopher Emdin, Columbia University
- II. Work based Learning, Sue Gubing, Career Smarts
- III. NYS CTE Program Approval Model, Dawn Scagnelli, NYS Education Department
- IV. National and formative Technical Assessments, Keith Bubeszczak, Field Team Associate, CTE TAC of NY

October 10, 2012

- I. Introduction to Strategic Planning
- II. Review of District CTE Assets
- III. Great Expectations Strategic Plan Cross Walk
- IV. Draft CTE Mission Statement and overarching Goal
- V. Review of CTE Program Elements
- VI. Seeking Answers to Key Questions

October 25, 2012

- I. Where are we in the process and how do we cross the finish line
- II. Review and discussion of Draft Plan Framework (provided by COB October23)
- III. Review and Discussion of Mission Statement, Goal Setting and Questions from October 11
- IV. Reflection, discussion and additions/deletions to The Framework
- V. Work Groups: What are the priority district actions to support the Framework elements

VI. Work Group Reports

November 8, 2012

- I. Review of Frame work and changes made
- II. Mission/Vision Review
- III. Standards Review
- IV. Pathways Review
- V. Partnership Council Review
- VI. Access Review
- VII. Discussion Timelines, Resources, Open questions

November 27, 2012

- I. Review of Frame work and changes made
 - a. Mission/Vision Review
 - b. Standards Review
 - c. Pathways Review
 - d. Partnership Council Review
 - e. Access Review
 - f. Infrastructure
- II. Review of Timelines and Responsibilities
- III. Priority CTE Clusters
- IV. Next Steps
 - a. Final Draft and sign off
 - b. Report to Superintendent
 - c. Development of Implementation Plan

Appendix C

Plan to Review District Assets

Documentation Area	Specific Information	Source	Collection	Miscellaneous
Key Documentation and Plans addressing CTE	Any new plans on principals agendas Program Descriptions or promotional material	Principals	On building visitation	Any material related to program development, communication with partners, distributed to students and parents or provided to the district office, other
CTE student performance information	Perkins Data District Information Information keep by building principals	Director Sec. Programs Building Principals	Principals: upon building visitation	
Course offerings and locations	By building	Principals	On Building Visitation	
Curriculum documentation	By building	Principals	On Building Visitation	
Personnel with CTE certification	By building	Principals/District Personnel Office	On Building Visitation In Advance	
STEM Programming	By Building District CTE/Science & Math Leadership	Building Principals	On Building Visitation	
Assessment of Career Guidance	District Plans, staff allocation and focus, programs or supports provided to	Principals Middle School Principals District PPS Leadership	On Building Visitation	

	students			
Services for Students with Disabilities				
Professional Development for CTE provided to CTE and other Faculty/staff	Agendas District PD Plans	District PD Staff Principals	In Advance On Building Visitation	
Status of Approved Programs including quality of the documentation	Copies of all Approved Program submissions Review of Selected "Binders" List of Approval Dates	SED Website Principals and or Director Sec. Programs	On Building Visitation	
Facilities/Facilities Plans for CTE	Building Floor Plans for existing or under construction	Principals or District Facilities Administration	<ul style="list-style-type: none"> • On Building Visitation • Tour of all CTE/Secondary School Facilities 	
Equipment	Laboratory Assessments	Principals	On Building Visitation	
Funding sources	Perkins Application District Budget for CTE if broken out (include: Personnel, equipment, materials, professional Development)	Director Sec. Programs District Finance Officer	In advance	
Relationships with business and industry, existing and potential	Formal Agreements Informal Agreements	Director Sec. Programs Principals	In Advance On Building Visitation	
Articulations with Post Secondary	Agreements	Director Sec. Programs or other Central Office	In Advance On Building Visitation	

Others as may be identified by the CTE TAC and district and school building leadership				
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Appendix D

Focus Group Reports

Business and Industry Focus Group August 23, 2012

What is your definition of College and Career ready?

- To be able and willing to learn and to be taught. To relate to others in team setting.
- To have the ability to influence others, and have good listening skills.
- Students have to know themselves. What skills do you actually have, what you are good at and what you like to do? They have to believe in those transferrable skills and use them to make a living. Students who actually believe they can succeed.
- Being self-driven. Students should be able to function on their own and have a good work ethic. Whether for college or career, your work ethic will get you through and help you be able to learn.
- To obtain the requisite 21st century skills, need to integrate into a career in a viable company and have appropriate skills—science, technology, engineering, math, the ability to think critically and be problem solver. There are jobs available, but there is a mismatch in skills. Good CTE—well-planned programs could play a pivotal role.
- Having basic life skills--being on time, dealing with colleagues, being able to follow through, following directions, not calling in sick, etc. (soft employability skills)
- There is a willingness on the part of businesses to hire students from SCSD if the curriculum is tailored to meet the business needs and students have life skills. Weed out the students who are not willing to work, dedicate themselves in school and once they are hired.
- If there isn't accountability that is direct, clear, and strong with students, the business community will not embrace it.
- Engineering companies., information commerce, Stickley, Inter Tech, Martin Marietta, (many local companies are looking for employees with specific skills)

- There are many different roles in business and industry—ex. Health care, everyone doesn't have to be a doctor
- National Grid takes students through levels of employment from HS to college graduates
- Students don't know that there are future college opportunities through employment. (Lack of understanding that there are pathways).
- Able to handle the concepts (college aspects), career ready (speak, communicate professionally, and other soft skills). Take whatever you have learned and apply it to job functions. We see that these skills are not being taught in high school or college.
- Most businesses are willing to train—people need to be able to learn—have the ability and desire.
- Many companies do all the training – if they have 2- or 4-yr degree, they are trainable—ability to learn.
- When I hire, I stopped hiring for skills—you don't know how much they actually did themselves by their resume. I hire for personality and soft skills, and can teach many of the skills.
- Confidence—I can take this job and learn what I need to learn. Understand that there are consequences if you cannot meet the needs of the business.
- It is powerful to know “I'm good at something” before starting high school courses. Assessment of skills, aptitudes, attitudes is very important before high school.
- From early on—helping students see the big picture, see what is beyond this year and high school.

What role should Career and Technical Education play in the preparation of SCSD students for post-secondary employment and education?

- Important to engage students, develop interests, keep them interested. Provide hands on activities; students shouldn't be talked at all day.
- Direct explanations – why are regents (such as Global studies, ELA) relevant to them personally or in a future career. May be a vehicle to get them to a skill, but it isn't explained to students in that way.

- School needs to be relevant—why am I here.
- Help students understand that school will help them get a job and support their family.
- Lack of exposure—for example “We need engineers” – kids don’t know what that means. Make career exploration mandatory.
- Things such as Career Days, bringing in people from business/industry, increase exposure.
- In college, many students change majors—became more aware of options.
- Students need better awareness of job the market—will you have to move or stay—for example, marine biology, fashion design will need to move.
- Curriculum, if you can incorporate an element of leadership training. Group work, meet a goal, ultimately—how does the work positively impacts the community. Looking for engineers, architects, etc., but also looking for leaders. Students should understand that projects that people work on in their jobs are crucial to the fabric of the community.
- Trying to expand options—non-traditional roles.

Who should be involved in CTE?—business community, parents, educators, etc.

- There has to be a way to integrate CTE into everyday life of all students.
- BOCES—students are separated from their own school.
- Historically, it was either or – college or career prep.
- Raise the bar to get into these programs, so that you are choosing students to get into programs, not dumping students into the program. Change concept of CTE as an option.
- Career exploration (300 students) fair—students have inaccurate understanding of trades and the life it can lead to.
- Career exploration should be a focus for all students for college and career readiness—more in depth. Need to involve others (adults) with the students as mentors.

- CTE should be like a funnel where students are initially exposed to many different paths. If they express interest in something—identify students in areas who can work with someone in the community—down to a 1-1 shadow. Internships—help students understand how work works.
- Include public safety, EMS and fire in the programs. Put them all in the same programs, learn from each other.
- Need to change their belief that they can't succeed. What they are experiencing in HS, home and community centers—it is very different than what is expected in the work place. Focus on soft skills, that can be painted with a broad brush—this is what I do, how I work, and what I make. Work places look for people of integrity.
- Before starting skills training, career exploration and soft skills must be stressed.

What has been the involvement of your business with the Syracuse City School District?

- Career Zone (user friendly tool for students) throughout some areas of SCSD and career fairs. Give outlook (growing occupations) to some classes. Portfolio to use throughout high school.
- Career fairs
- Apprenticeship program would be ideal for someone 18-19 coming in at entry level and learning. Employment opportunities are good. Don't have interest or feeder programs currently from high schools. No construction programs in general in the district.
- Set up programs for engineering/architecture/public safety—top level academy title with all pathways as a part of the program: Engineering/architecture—construction trades.
- Start early with a broad array of considerations, narrow from broad to specific outcome—which would be focused at secondary program.
- Provide hands on experiences in the community—make it real.
- Hands on – project based learning.

- Have volunteers teach basic financial literacy. There are a lot of people in the community that would like to help, but don't know how. Jr. Achievement can help facilitate.
- Engineering mentoring program—SU students go into schools and teach engineering camp after school. Have expectations to be in program (15-25 students per site) SU students volunteer with faculty coordinator.
- Corporate C-Camp—bus students to work site from 2-3 after school and get help with algebra. Modeled after program in Massachusetts. Students see the work place; meet the people who work (20 per year, in its second year.) Recruited Lockheed to take on another camp. Continue to add companies and schools each year
- Support organizations like Jr. Achievement, Boys and Girls Club, Say Yes
- Would like to narrow some of the focus into STEM
- King & King—tours, job shadows, 10-week series at Fowler world of construction and design –after school.
- Elementary schools have DARE, Jr. highs GREAT Program—police officers teach curriculum and their supervisor runs recruitment office.
- HS—School Info Resource Officers—also look at recruitment
- Police Explorer program for high school students interested in becoming police officers.
- Put something in place that all students have to participate in—would remove some of the stigma as the district looks at reconfiguring the programs.
- Help people find their passion—know what it is they enjoy, that they can make a good living, and make an impact.
- Students need to hear people's life stories to understand that there is not one cookie cutter route to finding your passion.
- Have to find companies that would like to help you out. More people you can partner with; however, the District needs someone to oversee the initiatives.

- Deal with nuts and bolts issues, transportation—how do you get them where they need to be.
- Is there coherence with all of the good initiatives going on throughout the community with students? Currently, it is a shotgun approach. Need clearinghouse

**Post-secondary Focus Group
August 23, 2012**

What is your definition of College and Career ready?

- Career-prepared/certified to enter a desired field of work that has an adequate living wage and pathways, including links to post-secondary education, in-house training, etc. Smoothly transition without beginning from ground zero.
- Can hit the ground running--don't need general training (induction) that companies can no longer afford.
- When you go into the city schools and talk to students, career ready means “making money” to them. The ideas that the schools and most adults hold have not trickled down to the students. Many times schools districts concentrate on the college, not career-ready.
- Key skills missing—self-accountability and soft skills to function in business or college setting. Not tied to any specific disciplines.
- College Ready--maturity level for independent living, respect for others individuality, and acceptance of diversity. Ability to meet timelines; make wise choices; have oral, written and quantitative skill; moral and ethical accountability.
- Career ready—knowledge of a discipline (content), credentials that say you are qualified to be in a position, regard for policies and procedures, integrative thinking skills, honesty, integrity, and confidentiality
- Cuts across both—having a plan of action, “What am I going to look like 5, 10 years from now.” Having a personal-life plan.
- Part of the reason they don't have plans is they don't have exposure.
- Awareness of organizational structures that they connect with talents and interests.
- Have been exposed to a career that allows them to learn the tools they need (knowledge, skills, and training) with programs that gives them the skills to access .

- Ability to analyze what they are exposed to.
- Many students don't have the social capital to navigate the world of work or the college landscape.
- Multiple pathways-- students listen to things adults say—need to see the reason to continue to grow as a person.
- Professional orientation—understanding communications in a professional environment (not interrupting), flexibility, on-site experiences. Elements of having some career savvy, making decisions for one's future, while weighing it against the economic options of getting to the goal.
- Aspirations for one's family—balancing and researching decisions. Individuals going into options that are good for them.
- Talk about function and responsibility. The kinds of things students would like to engage in and then match the pathways to make that possible. Ex.--if you are interested in medicine—you don't have to become a doctor, there are many options.

What role should Career and Technical Education play in the preparation of SCSD students for post-secondary employment and education?

- Should be a model that can be implemented to approve the outcomes of all students. Should be a part of all students' pathways.
- Particularly for juniors and seniors--they should have an internship experience for all interests. Even if they are interested in English-- work at a library or newspaper. Focus on something they are interested in—then focus on different areas of work in the field of interest. They should see that they area that they love has a variety of areas of work that a student could pursue.
- CTE teachers are resources for other content teachers. Ex. STEM—could be a think tank for other areas in the school. Give their colleagues ways to bring their content alive. Real, authentic assessments of ability.
- There are disparities between the world of K-12 and the world of CTE. In the world of CTE, the teachers are not prepared in being teachers of ELA, literacy. To them it is academic jargon. Kids can come out golden with their hands, but can't independently meet the standards. They need the literacy skills.
- Role of CTE needs to merge the field of academics. (If students are going to be able to grow and continue to reinvent themselves—the same is true for CTE teachers)

- Certification requirements for CTE are a problem—you need highly qualified CTE teachers with a Master’s degree like all other teachers so that they gain these experiences and skills. Also, speaks to the perception of the programs.
- Perception—guidance does not always put students into CTE programs even though the students want to participate. Who gets placed in the CTE programs is not always who will be successful.
- Need to look at building skills and interests in elementary and middle schools as well, so that they don’t disengage. Situation exacerbated in middle school--need to bring the programs to MS students to provide a pathway for them to follow.
- At some comprehensive high schools, the CTE projects serve across disciplines with collaboration and serve as evaluative tool. Assessed in each specific area—CTE not a separate silo.
- The integration process requires high involvement with all CTE and academic teachers.
- How long are we going to let the current structure stand in the way of achieving success?

What has been the involvement of your institution with the Syracuse City School District?

Bryant & Stratton

- Workshops in college, resume writing, money management
- Work with guidance counselors
- Workshops in ELA/global studies
- Bus trips to bring students to college, bring in diverse schools/students
- Career day for every program
- Early HS College program, into classes for their programs that are accredited and free. Signed contract with SCSD-- went from 18 student to 6. Passing rate goes up when they are on campus.
- Evening classes successful. Non-traditional students like the high school students. Outcomes of program are positive, but not getting students into the programs at the high school level. They counsel student to help them understand the course is a college credit. Reading comprehension test is a difficult for some of the students recommended. Contract signed through 2013.

OCC

- Early college, Liberty partnership. College level classes at high school are free.
- There are so many initiatives and options that guidance and students may be overwhelmed.
- Program at Nottingham started with a much larger number than actually participated. Colleges could be better at coordinating efforts. Have found that we have to offer most of

the programs during the day during the school year. Summers have not worked well. High School principals (coordination defaults to them) have many initiatives to deal with. Bring smaller group interested in specific field (electronic media) and have them learn about the program.

Oswego

- College visits are sometimes focused on the students who are decided, have a direct pathway in mind. Need to focus on students who don't know what they want to do.
- Loose the students at middle school, do some of the same campus activities with younger students.
- Many colleges rely on guidance for the information about student needs
- Data is available on Syracuse students, completion rates, etc. B & S - 34% complete. What is the comparison for students from SCSD compared to other schools for completion? Ex., Liberty Partnership—not one has completed.
- Possibilities scholarship program, admits students from SCSD interesting in the STEM disciplines—needs based, 4-year full ride. Includes study abroad experience.
- Project BLEND: Building leadership excellence for needs based districts. Connections with SCSD, recruited leadership candidates to study CAS. Support for internship as well.
- ORITE: Oswego residency initiative for teacher excellence. Placing masters level teachers in schools, mentor teachers receiving professional development.
- Mostly grant opportunities.

LeMoyne

- Teacher leader program, then into CAS.

Syracuse University

- 1000 points of light, many different projects. Partnership for better education, OCC, ESF, Oswego, Upstate Med. Get hands around the things that each of the organizations is doing to be better coordinated.
- Early college high school programs. Students allowed to take courses at SU, and also on the Nottingham campus.
- Counseling program at school of education, students doing their field work with the SCSD.
- One week science program—all hands on science. (Girls get it, a couple of years ago—science and technology, lived on campus).
- SU also experiencing declining enrollment in these many opportunities. Not sure that there are not students to take advantage of the opportunities, coordination/communication.
- Meet as a collective group of schools to try to prevent fatigue for Syracuse City schools.

SUNY Cortland

- CURE(Cortland Urban recruiters of educators) (training for mentors)
- AVID: Sending pre-service teachers in district
- NOYCE: Available for science and math

- Say Yes campus visit

ESF:

- ESF in HS—dual enrollment—has been offered in all high schools, two smart scholars with ITC and Nottingham—taking college courses as well in math and landscape architecture.
- ESF SCIENCE: 100-200 students
- ESF Science challenge—500-600 middle school students, research projects, 100 volunteer judges. Use Carrier Dome because of capacity.
- PD for teachers—faculty provides content education for SCSD elementary teacher.
- HOST ITC graduation

What are the key challenges faced by SCSD graduates upon arrival at your institution?

- Being at the appropriate skills levels to read, write, and compute
- Only a small handful come to ESF—very focused on specific kinds of programs
- Feel that the challenges are similar to those faced by students from other districts (lack of that specific analysis)
- Level of support available for the admissions process is important for students to be successful.
- Possibility of undergraduate students to help with the application process for colleges. The ratio of students to guidance is about 250:1. In addition, financial aid for students and families very complicated.
- Dissonance between expectations of ELA and Math at the high school level and things that students are asked on placement exams.
- Summer success academy—if students placed into remediation through the placement tests, they could possibly start at college level in fall.

What can or does the SCSD do to ease that transition?

- Gap—inability to do the work on time—not necessarily the ability to do the work, but to do it on a schedule. Phase out the concept of handing work in whenever it gets done—

Appendix E

CAREER READY PRACTICES

The Common Career Technical Core (CCTC) is a state-led initiative to establish a set of rigorous, high-quality standards for Career Technical Education (CTE) that states can adopt voluntarily. The initiative is being coordinated by the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), which represents the state and territory heads of secondary, postsecondary and adult CTE across the nation. Forty-two states, the District of Columbia and Palau supported the development stage of the CCTC.

The CCTC includes a set of standards for each of the 16 Career Clusters™ and their corresponding Career Pathways that define what students should know and be able to do after completing instruction in a program of study. The CCTC also includes an overarching set of Career Ready Practices that apply to all programs of study. The Career Ready Practices include 12 statements that address the knowledge, skills and dispositions that are important to becoming career ready.

The Career Ready Practices component of the CCTC provides a framework for the developmental experiences necessary to becoming career ready; experiences that can be “practiced” using many different approaches in a variety of settings. A student refines these practices throughout their full continuum of learning: through their journey in school, college, the workforce and when they return to advance their education.

Each Career Ready Practice includes an overarching statement along with a more detailed description. Below are the 12 overarching statements:

- Act as a responsible and contributing citizen and employee.
- Apply appropriate academic and technical skills.
- Attend to personal health and financial well-being.
- Communicate clearly and effectively and with reason.
- Consider the environmental, social and economic impacts of decisions.
- Demonstrate creativity and innovation.
- Employ valid and reliable research strategies.
- Utilize critical thinking to make sense of problems and persevere in solving them.
- Model integrity, ethical leadership and effective management.
- Plan education and career paths aligned to personal goals.
- Use technology to enhance productivity.
- Work productively in teams while using cultural global competence.

The Career Ready Practices are intended to establish goals for CTE programs, yet the practices are relevant for all students.⁵

⁵ National Association of State Directors of Career Technical Education Consortium

WORKING DOCUMENT

Resources Consulted

Websites and Documents

High Schools That Work: http://www.sreb.org/page/1078/high_schools_that_work.html

Engineering by Design: <http://www.iteea.org/EbD/ebd.htm>

National Academy Foundation: <http://naf.org/naf-academies>

Project Lead the Way: <http://www.pltw.org/>

International Baccalaureate Career Related: <http://www.ibo.org/ibcc/>

National Association of State Directors of CTE Consortium: <http://www.careertech.org/resources/information.html>

- Career Clusters: <http://www.careertech.org/career-clusters/>
- Common Career Technical Core: <http://www.careertech.org/career-technical-education/cctc/info.html>

National Career Academy Coalition: www.ncacinc.com

Career Academy Support Network: <http://casn.berkeley.edu/>

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[BRTF Economic Development and Labor](#), SUMMARY OF Central New York Regional Economic Development Council Strategic Plan Priority Industry Concentrations, Edward Shafer, CTE Technical Assistance Center of NY

[BRTF Voc-CTE and Research](#), From Voc Ed to CTE and the Research Base, Edward Shafer, CTE Technical Assistance Center of NY

[BRTF Kathy Finnerty Oswego County BOCES](#), Integrated Academics, Kathy Finnerty, Oswego BOCES

[Work Based Learning - Sue Gubing](#), Career Smarts

[Intro CTE Program Approval](#), Dawn Scagnelli, NY State Education Department

[CTE Technical Assessment - Keith Babuszcak](#), CTE Technical Assistance Center of NY

[Reality Pedagogy - Chris Emdin](#), Assistant Professor, Teachers College, Columbia University

[Career Academies - Ed Shafer](#), Career and Technical Education Center of New York

WORKING DOCUMENT