DOCUMENT RESUME

ED 415 283 TM 028 027

AUTHOR Newman, Dianna; Brown, Adam; Newcomer, Laurie; Campbell, Kim; Miwa, Keiko

TITLE New York State Tech-Prep: Results of a State-Wide Evaluation.

INSTITUTION State Univ. of New York, Albany. Evaluation Consortium.
PUB DATE 1997-00-00
NOTE 98p.
PUB TYPE Reports - Evaluative (142)
EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Academic Education; *College School Cooperation; Curriculum; Financial Support; *High School Students; High Schools; Higher Education; *Integrated Curriculum; Program Evaluation; Special Needs Students; *State Programs; Surveys; *Tech Prep; *Technical Education
IDENTIFIERS *New York; Stakeholders

ABSTRACT

New York State Tech-Prep is a joint-secondary-higher-education program with the objective of providing students with rigorous technical and academic skills. Currently 30 Tech-Prep consortia operate across the state. In 1996, the state commissioned an evaluation of its Tech-Prep programs. This report summarizes information from the first study that was part of the evaluation, a state-wide description of efforts on behalf of Tech-Prep, including a general description of students, curriculum practices, and stakeholder perceptions. Data were collected from stakeholders in each of the 30 consortia through written surveys and focus groups at each site. Survey responses were received from 23 consortium directors, 296 high school teachers, 79 high school teachers of special needs students, 70 high school administrators, 73 guidance counselors, 865 high school students, 65 special-needs high school students, 40 post-secondary administrators, 26 admissions staff, and 57 post-secondary students. Tech-Prep was perceived as providing a positive contribution to students, staff, and the community. Students found the classes interesting, and staff felt that Tech-Prep helps orient students toward the workplace. Administrators also thought that Tech-Prep improved relationships among schools, the community, and businesses. As part of the evaluation, participants and stakeholders identified some barriers to program success, citing the need for increased financial support in particular. Two appendixes discuss survey methodology and respondents and interview methodology and respondents. (Contains 29 tables.) (SLD)

NEW YORK STATE TECH-PREP:
Results of a State-wide Evaluation

Principal Investigator:
Dr. Dianna Newman

Project Directors:
Adam Brown
Laurie Newcomer
Kim Campbell
Keiko Miwa

The Evaluation Consortium at Albany
University at Albany/SUNY, 1400 Washington Avenue
Education B28, Albany, New York 12222 (518) 442-5027

Table of Contents

NEW YORK STATE TECH-PREP: RESULTS OF A STATE-WIDE EVALUATION

Executive Summary

New York State Tech-Prep is a joint-secondary-higher-education program with the objective of providing students with rigorous technical as well academic skills. Currently 30 Tech-Prep Consortia operate across the state forming partnerships of secondary schools, two-year colleges, BOCES, businesses, and government agencies. In 1996, the New York State Department of Education mandated an evaluation of its Tech-Prep programs. As part of this effort, three studies were commissioned: 1) a state-wide summary of efforts on behalf of Tech-Prep including a general description of students, curriculum practices; and stakeholder perceptions; 2) an in-depth description of Tech-Prep curricula as evidenced by best practices, and 3) an in-depth description of student outcomes as evidenced by student success. This report summarizes the information provided as a result of the first study.

Methodology

Information pertaining to the statewide evaluation of Tech-Prep was collected using both quantitative and qualitative methodologies. Data were collected using: 1) paper and pencil surveys of stakeholders distributed to each of the 30 Tech-Prep consortium; and 2) interviews and focus groups conducted at each of the 30 Tech-Prep consortium sites. Stakeholders from whom data were collected are as follows: consortium directors, high school students, students with special needs, teachers, guidance counselors, administrators, post-secondary students, faculty, administrators, admissions staff, and local decision makers.

Nine paper-pencil instruments were developed to assess participant perceptions of Tech-Prep, these included four instruments for the high school level (student, teacher, administrator and guidance counselor) and four for the post-secondary level (student, faculty, administrator, and admissions staff). A modified version of the high school student instrument was developed for use with students with special needs. In addition, a comprehensive survey was developed for the consortium directors. Overall, responses to paper-pencil instruments were obtained from 23 consortium directors, 296 high school teachers, 79 high school teachers of students with special needs, 70 high school administrators, 73 guidance counselors, 865 high school students, 65 high school students with special needs, 110 post-secondary faculty, 40 post secondary administrators, 26 post secondary counselor admissions staff, and 57 post-secondary students.

Using a stratified sampling plan, qualitative data were also collected from each of the 30 consortia. As a part of this process, interviews were conducted with the following: 50 high school

teachers, 2 high school teachers of students with special needs, 15 high school administrators, 30 guidance counselors, 65 high school students, 6 high school students with special needs, 11 post secondary faculty, 16 post-secondary administrators, 8 post-secondary admissions counselors, and 8 post secondary students. Additionally, 15 local decision makers, not in the employment of the educational system, were identified by consortium directors and included in telephone interviews.

Summary of Key Findings

Presented below is a summary of the key findings of the state-wide evaluation of Tech-Prep. An in-depth description of each and the supporting documentation are included in the body of the report.

Tech-Prep is perceived as a positive contribution to the students, the staff and the community. The majority of Tech-Prep participants believe the program is beneficial, contributing to the academic, career, and social growth of the students while providing benefits to the staff, the school and the community.

- The majority of the students agree that the classes are interesting, the classes are preparing them to get a good job, the classes cover the material they need to know, the classes have improved their thinking skills, and the classes have increased their motivation for learning.

- Over 90% of the staff agreed that Tech-Prep is beneficial for former general track students, that Tech-Prep helps orient students to current work-place requirements, and that Tech-Prep helps retain students who might have been at-risk.

- Local decision makers support the program, feeling that Tech-Prep effectively prepares students for post-secondary and/or future employment, that students have more marketable skills and are more employable, that students are better prepared for college, and that students have more self-esteem and increased motivation for work and for earnings. In addition, local decision makers believe that students who may not have normally have gone to college are now doing so and that the program is continuing to raise standards.

Program participants also indicated the presence of outcomes affecting program staff.

- High school teachers believe they are now better instructors because of the additional training and opportunities to enhance their knowledge provided by Tech-Prep. Part of this is due to their opportunity to have more contact with businesses.

- Teachers indicated that they gained new knowledge that was important in and of itself. This included new skills in math, science, and technology that not only enriched their classrooms but also their daily lives.

- Both high school and post secondary teachers perceived that their relationships and ability to communicate with students and other educators had improved. Post-secondary faculty indicated that they now have more contact with students and high school teachers. High school teachers have a closer relationship with students and with other teachers who instruct in common core areas.

Secondary and post-secondary administrators indicated that the program resulted in improved relationships among schools, the community and businesses. Specifically, administrators indicated that:

- Relationships with local businesses had been enhanced.
- High schools and post-secondary schools had better relationships.
- High schools had better relationships with other secondary schools.

Barriers to Implementation and Areas in Need of Improvement

As part of the evaluation, program participants were asked to identify possible barriers to future implementation of Tech-Prep and areas in which they would like to see improvements. Following is a summary of these responses.

A fear of program elimination and the need for continuous funding. Many of the staff and administrators associated with Tech-Prep indicated a need to find continuous funding for the program if it was to continue. The respondents perceived the unique value of the program and wanted it to be an integrated part of the school offering; however, they indicated that without additional external support, the program would probably be blended into existing programs or eliminated.

The amount of time and effort needed for implementation and maintenance of the program, including issues in Tech-Prep curriculum. Administrators and teachers especially at the secondary level indicated that implementation of Tech-Prep as a new program required additional resources especially in terms of time, faculty training, curriculum development, supplies, and equipment and staff development. These costs however continue the need for resources was not limited to the implementation stage. Tech-Prep also requires additional resources to maintain the high quality of the program. As an example, continued staff development was needed to update new technology, provide information on new career paths, and inform new staff, guidance counselors, and administrators who became a part of the program.

Perception of the program as a "dumping ground" for non-regents students. Many high school teachers expressed the fear that the program would become a substitute track for students at-risk as the school level track was diminished or eliminated in their building. Although the teachers realized the appropriateness of the program for some students as-risk, they feared that an increased heterogeneity would threaten the college preparation aspects of the program.

Guidance counselors' lack knowledge of the program's real purpose. Many teachers and students reported guidance counselors' treatment of Tech-Prep students as non-college-bound. This contributed to: incorrect advisement of students into the program, and inaccurate information about supporting courses and miscommunication to parents about the program. Many guidance counselors stated that they were not involved in initial implementation of the program, and consequently were not aware of the programs' unique qualities, its goals, and requirements.

Recruitment and retention of students. All respondents indicated a need to improve recruitment and retention mechanisms. Staff development was requested by administrators, guidance counselors, teachers, and post secondary staff on methods of identifying students who were appropriate to the program and assisting them in completing the program including the transition to the post-secondary level. Post secondary staff requested assistance in "flagging" incoming students to better provide services.

Parental awareness of the program. Secondary school staff believed that increased parental awareness of the program was necessary for future success. Methods need to be developed and shared that include parents in recruitment of students, development of curriculum, and selection of college goals.

Improved relationships with business community. Secondary and post-secondary participants perceived a need to increase business and community involvement in the program. Because of the unique nature of the program, respondents stated that involvement of businesses was imperative to program success and that greater efforts needed to be made to include more businesses in the design, development, and presentation of the program. This involvement would include the sharing of resources on the part of the businesses as well as the educational institutions. Additionally, methods need to be developed that will assist rural and non-industrial consortia to identify and include local businesses.

Fear of the impact of State Regents requirements on Tech-Prep. Secondary and post-secondary respondents indicated that lack of clarity of State Regents requirement, and their impact on Tech-Prep, was threatening implementation and integration of the program. Program staff would like additional clarification from the State Education Department and their local administration on how Tech-Prep is impacted by these changes.

Improvement of the image of Tech-Prep. A common theme across the evaluation was the need to improve the image of Tech-Prep. Participants familiar with the program perceived a high quality, unique educational experience offered in a way that meets the needs of students and the community at large. They perceived, however, that the majority of people not directly associated with the program do not understand its unique goals nor its linkage between education and careers. They see the need to share this information with constituents and stakeholders at the federal, state, and local level.

Introduction

New York State Tech-Prep is a joint secondary-higher education program with the objective of providing students with rigorous technical, as well as academic skills. Through a coordinated course of study at the local secondary school and a supporting institution of higher education, Tech-Prep students are exposed to rigorous academic math, science, communications, and technical knowledge critical for the 21st century. Currently 30 Tech-Prep Consortia operate across the state of New York. In general, consortia are partnerships of secondary schools, two-year colleges, BOCES, businesses and government agencies. Programs offered by the consortia vary, maximizing the strengths of each.

In 1996, the New York State Department of Education mandated an evaluation of the state-wide Tech-Prep program. As part of this effort, three studies were commissioned: 1) a state-wide summary of efforts on behalf of Tech-Prep including a general description of students, curriculum practices, and stakeholder perceptions; 2) an in-depth description of Tech-Prep curricula as evidenced by best practices; and 3) an in-depth description of student out-comes as evidenced by student success. The evaluation of Tech-Prep presented in this report addresses the first study.

Multiple evaluation questions were addressed as part of the state-wide evaluation. These included:

- A general description of who is served by the program and the curriculum offerings answered by:

  Evaluation Question One: What constitutes New York State Tech-Prep?

- A summary of the delivery of New York State Tech-Prep, answered under:

  Evaluation Question Two: How are students recruited into Tech-Prep and what is the general status of their transition to post-secondary institutions?

  Evaluation Question Three: How is Tech-Prep implemented in terms of: a) designing and developing Tech-Prep programs; b) designing and presenting Tech-Prep curriculum; and c) developing and sharing a professional Tech-Prep knowledge base?

  Evaluation Question Four: What support mechanisms are in place for Tech-Prep staff?

- Perceptions of program outcomes and barriers to reaching those outcomes, addressed under two additional questions:

  Evaluation Question Five: What are the perceived outcomes of Tech-Prep?

  Evaluation Question Six: What are the perceived barriers to Tech-Prep and what areas are in need of improvement?

Methodology

Information pertaining to the statewide evaluation of Tech-Prep was collected using both quantitative and qualitative methodologies. Data were collected using: (1) paper and pencil surveys of stakeholders distributed to each of the 30 Tech-Prep consortium; and (2) interviews and focus groups conducted, according to a stratified sampling plan, at each of the 30 Tech-Prep consortium sites. Stakeholders from whom data were collected are as follows: consortium directors, high school students, students with special needs, teachers, guidance counselors, administrators, and post-secondary students, faculty, administrators, and admission staff.

Surveys

Paper-pencil survey instruments were developed by the Evaluation Consortium in consultation with regional directors of Tech-Prep. Four instruments were developed for the high school component including surveys for: students, teachers, administrators, and guidance counselors. A modified version of the student survey was developed for students with special needs. Four surveys were developed for post-secondary stakeholders including: students, faculty, administrators, and career counselor/admissions staff. A more comprehensive survey was developed for the consortium director. Each consortium director was provided with copies of the surveys and was requested to obtain a representative sample of data. In Table 1 a summary of the respondents providing survey information is presented. See Appendix A for a copy of the surveys, the sampling plan for survey instruments, the breakdown of consortia responses, and a detailed description of survey respondents.

Interviews

Each Tech-Prep consortium was visited by a member of the Evaluation Consortium between October 1996 and February 1997. The purpose of this visit was to collect qualitative data that would provide additional information supporting and adding to the survey responses. Interview protocols were developed by the Evaluation Consortium in consultation with regional directors of Tech-Prep. A stratified sampling plan was developed such that data representative of all stakeholder groups would be collected across multiple sites; within each site the consortium director and four different types of stakeholders were selected for interviews. Students were interviewed using a focus group format; other stakeholders were interviewed either individually or as cohort groups. Telephone interviews were held with 15 local decision makers each identified by consortia directors. Presented in Table 1 are the number of interviews conducted. Appendix B presents the interview protocol and the breakdown of stakeholder interviews conducted in each consortium.

Table 1
Breakdown of Respondents to the Survey and Interview Process

Stakeholder	Survey	Interview
Consortia Director	23	30
High School Teacher	296	50
High School Teacher (Special Needs)	79	2
High School Administrator	70	15
High School Guidance Counselor	73	30
High School Student	865	10a
High School Student (Special Needs)	65	6
Post-Secondary Faculty	110	11
Post-Secondary Administrator	40	16
Post-Secondary Counselor/Admissions	26	8
Post-Secondary Student	57	1a
Local Decision Makers		15b

a = focus groups with 6-10 students; b=telephone interviews

Question One: What constitutes New York State Tech-Prep?

The purpose of Evaluation Question One was to describe the current status of New York State Tech-Prep, including the number and types of students served, the make up of the consortia, and the types of offerings provided by the consortia. Both survey and interview data were used to answer the question. A paper-pencil survey was distributed to each of the 30 consortium directors requesting a summary of their consortia. Interviews were also conducted with the different stakeholders to elicit generalized perceptions.

The quantitative data presented below is based on the 23 surveys that were returned from consortia directors. Total numbers are based on frequencies summed across the respondents, and average numbers are used to portray a "typical" consortium. Qualitative data are based on interviews with the 30 directors.

Students in Tech-Prep

The distribution of students who are in Tech-Prep in grades 9, 10, 11, and 12 is shown in Table 2. Although grades 11 and 12 have the largest number of students, there are growing numbers of students in grades 9 and 10 that will be moving into the upper grades in the next two years.

Table 2
Student Distribution in Grades 9 to 12

	9th grade	10th grade	11th grade	12th grade
Total number	2400	2501	3705	3425
Mean number	114	119	176	163

A breakdown of student involvement by ethnic background is presented in Table 3. On the average, approximately 64% of the students in Tech-Prep are White; 19% are Black; 12% are Hispanic; 4% are Asia-Pacific Islanders; and 1% is Native American. The minimum and maximum percentages represent the consortium with the greatest and smallest percentage of students within each group respectively.

Table 3
Student Distribution by Different Ethnic Background

	White	Black	Hispanic	Native American	Asia Pacific Islander	unknown
Average %	64	19	12	1	4	10
Maximum %	99	84	49	8	19	100
Minimum %	3	0	0	0	0	0

The distribution of students by specific background is presented in Table 4. The gender balance of Tech-Prep students is nearly equal. On average 7% of Tech-Prep students have limited skills in English; however, there is a consortium where half of the students use English as a Second Language (ESL). The average percentage of students with a diagnosed disability is 6% although the rate reached a maximum of 23% in one consortium. On average 37% of students are economically or educationally disadvantaged with one consortium indicating that 80% of its Tech-Prep students are in this category. Again, minimum and maximum percentages represent the consortia with the greatest and smallest percentage of students within each group respectively.

Table 4
Student Distribution by Specific Background

	Female	With Limited English	With Disabilities	Economically/ Educationally Disadvantaged
Average %	53	7	6	37
Maximum %	87	50	23	80
Minimum %	30	0	0	2

Data related to the distribution of students by career cluster are presented in Table 5. Business/ office/marketing and Engineering/technology are the two most common career clusters in which students are involved.

Table 5
Student Distribution by Career Cluster

Career Cluster	Percentage
Business/office/marketing	34
Engineering/technology	27
Mechanical/industrial trade	12
Health/human sciences	10
Arts/humanities	5
Agriculture	3
Other	8

Transfer data available on post-secondary institutions are reported in Table 6 for the years 1993 to 1996. It should be noted in using this table, that many of the Consortia are only now beginning to develop tracking mechanisms for students; hence, the data presented are representative only.

Table 6
Tech-Prep Student Enrollment to Post-Secondary Institutions 1993-1996
Number of Students Tracked by Consortia

Type of Post-Secondary Education	1993	1994	1995	1996	Total
Community/technical college	67	276	517	674	1534
Four-year colleges/universities	57	213	266	403	939
Proprietary/post-secondary schools	5	8	40	20	73
Registered apprenticeships	0	0	0	0	0
Armed forces	1	31	39	161	232
Other	4	3	41	53	101
Graduated from articulated post-secondary programs	0	0	0	0	0
Employed in related jobs after high school	41	86	172	232	531
Total	175	617	1075	1543	3410

Description of the Consortia

Summarized in Table 7 are data pertaining to the make-up of the consortium by type of institution. Most consortia included both local area school districts and community/technical colleges as members of their Tech-Prep consortia. (The remaining 4% included BOCES centers which routinely involve secondary schools and technical colleges.) Area vocational technical centers (BOCES), employers/businesses and associations were other common members in consortia (74% and 65%, respectively). The last category included a range of state and local government agencies, labor union representatives, and community groups.

Table 7
Consortium Members (Multiple answers were permitted)

Institutions	%
Local area school districts	96
Community/Technical colleges	96
Area vo-tech centers	74
Employers/business and associations	65
Four-year post-secondary institutions	43
Labor Groups	30
Post-secondary proprietary institutions	26
Other agencies	39

The percentage of Tech-Prep consortia by type of structure are presented in Table 8. Most (83%) had 2, 3 or more years of high school and 2 years of college. Approximately half (48%) of the consortia had options for further study in an articulated program at 2-year post-secondary institutions or a technical center; approximately half (48%) had options for further study at four year post-secondary institutions.

Table 8
Consortia model structure

Type of Structure	%
2 years of high school plus 2 years of college	22
3 or more years of high school plus 2 years of college	22
2 years of high school plus 2 years of college with options for further study in an articulated program at a 4-year post-secondary institutions	17
3 or more years of high school plus 2 years of college with options for further study in an articulated program at a 4-year post-secondary institutions	22
1 or more years of junior high/middle school plus 4 years of high school plus 2 years of college	4
1 or more years of junior high/middle school plus 4 years of high school plus 2 years of college with options for further study in articulated program at a 4 year post-secondary institution	9
other	4

The percentage of consortia which reported defined career clusters and course articulation for each program category is presented in Table 9. Eighty-seven percent (87%) had defined career clusters, 13% did not. Of those who did, 85% had a business/office/marketing career cluster, 70% had engineering/technology, and 65% had health/human service. Mechanical/industrial trade career cluster was present in 30% and arts/humanities in 15%.

The breakdown of course articulation in Tech-Prep was similar to that of the defined career clusters: business/office/marketing, engineering/technology, and health/human services were the top three.

Table 9
Career Clusters and Course Articulation

Program Category	Defined Career Clusters (%)	Course Articulation (%)
Business/office/marketing	85	77
Engineering/technology	70	82
Health/human services	65	64
Mechanical/industrial trade	30	32
Agriculture	20	18
Arts/humanities	15	14
Other	15	18

Seventy-four percent of consortia had a consortium-wide core program. Common elements of consortia-wide core programs were:

- Taking applied academic course (83%);
- Taking academic or occupational courses related to career cluster (78%);
- Workplace experiences (78%); and,
- Career development activities (72%).

Description of Tech-Prep

As part of the interview process, high school teachers, administrators, guidance counselors and post-secondary faculty, administrators, and admissions staff were asked how they would describe Tech-Prep to a peer. Analysis of their responses yielded common themes: Tech-Prep is a hands-on/applied program, it acts as a bridge between academics and vocational coursework, it has a seamless (continuous) curriculum, and it is a way of preparing students for post-secondary education. A breakdown of themes by stakeholder group is presented below.

High school teachers' description of Tech-Prep focused on three themes: the way Tech-Prep is taught, the curriculum that is covered, and Tech-Prep as a means of providing transition to post-secondary education.

- In terms of the way Tech-Prep is taught, most faculty described Tech-Prep as "hands-on", a "practical application, providing real world experience" and "active". For teachers, Tech-Prep is a means of combining academic and vocational experiences by developing skills for the workplace, providing career direction and focus, and making a connection between what is taught and the real world.

- Tech-Prep teachers also emphasized the importance of the curriculum, indicating that it is different than what they teach in non-Tech-Prep classes. Teachers stated they put more emphasis on integrating technology into the classroom, they have more freedom to design the

curriculum, they give the students more freedom to learn in ways that best meet the students' needs, and they present a more interdisciplinary and cooperative learning framework.

- Another important descriptor of Tech-Prep, according to secondary teachers, is its role in preparing students to attend post-secondary education. They believe Tech-Prep assists in the process by: providing more math and science skills, eliminating the need for remediation at the post-secondary level, provides students with advanced standing at post-secondary institutions, and creating collaboration between high school and post-secondary institutions.

High school administrators saw Tech-Prep as:

- A means of providing hands-on, application to the real world where math, science, and technology are integrated.
- A partnership between high school and post-secondary institutions.
- Quality options to the Regents track, a means of upgrading the standards for non-Regents students, and a means of providing additional support for at-risk students.

High school guidance counselors viewed Tech-Prep as:

- A bridge between high school and post-secondary education.
- A link between academics and technology, thereby providing a focus on careers.
- A way of providing at-risk students with higher self-esteem.
- A way of teaching and encouraging team work.
- Beneficial for English as a Second Language (ESL) students.

Post-secondary faculty described Tech-Prep as:

- A means of providing a seamless, continuous curriculum.
- A hands-on approach to learning new technologies that involves more math and science.
- A bridge to post-secondary education.
- A means of increasing students' critical thinking and problem-solving skills.

Post-secondary administrators described Tech-Prep as:

- A seamless curriculum provided by articulation agreements between high school and post-secondary institutions.
- A more applied approach to teaching and learning.
- A means of preparing students for post-secondary education.

Post-secondary admissions and career counselors perceived Tech-Prep as:

- A seamless curriculum from high school to post-secondary.
- A means of reducing the stress of transfer to college for at-risk students.

Question Two: How are students recruited into Tech-Prep and what is the status of their transition to post-secondary institutions?

The second evaluation question addressed the following: (1) how are students identified and advised to participate in Tech-Prep; and, (2) the status of their transition from high school to post-secondary settings. Data for this section were collected through: (1) paper and pencils surveys for high school students, students with special needs and post-secondary students; (2) interviews with high school guidance counselors, post-secondary administrators and admission staff; and, (3) focus group interviews with high school students.

Identification and Advisement

Students were asked to indicate who advised them to enroll in Tech-Prep (Table 10) , sources of career information (Table 11), and why they chose to enroll in Tech-Prep (Table 12). Data in Table 10 shows that guidance counselors were the key source of advisement for all students followed by parent/caregivers and teachers. No major differences were found between high school students and high school students with special needs. Post-secondary students marked all sources lower than did either group of high school students.

Table 10
Source of Advisement to Enroll in Tech-Prep (Percent Responses)

Source	HS Students	HS Special Needs	PS Students
Parents/Caregivers	45	40	25
Teachers	41	45	47
Peers	25	29	22
Administrators	5	5	17
Guidance Counselors	70	74	58
Others	9	6	5

HS = High School PS = Post-secondary

Students also were asked to indicate how much advisement on career assistance they received from various teachers, counselors, or parents (Table 11). Important findings include:

- Approximately one-third of all three types of students responded that they received a great deal of assistance/information from at least one teacher, counselor or parent/caregiver,
- Approximately one-fifth of high school students with special needs indicated that they received little or no assistance/information from teachers, counselors, or parents/ caregivers, and
- Tech-Prep students now at the post-secondary level indicated that they received the most assistance from teachers and guidance counselors.

Table 11

Assistance/Information from Teachers, Counselors, Parents/Caregivers (Percent Responses)

Source	HS Students	HS Special Needs	PS Students
A great deal from at least one teacher	33	35	40
A great deal from at least one counselor	31	22	39
A great deal from parents/caregivers	36	37	22
Some from teachers	34	27	35
Some from counselors	36	34	27
Some from parents/caregivers	28	40	18
Little or none from teachers	13	23	8
Little or none form counselors	14	24	12
Little or none form parents/caregivers	9	17	10

Students then were asked why, based on this advisement, they decided to enter the Tech-Prep program (Table 12). A variety of responses were provided:

- High school students enrolled because they were 'interested in the program' (22%) followed by 'it was good for their career choice' (17%) or it 'gave them a chance to learn' (17%).
- High school students with special needs selected Tech-Prep because it was the best program offered that met their needs (29%).
- Nearly half of post-secondary students (43%) selected Tech-Prep because it was 'good for getting into college'.

Table 12
Reasons for Enrolling in Tech-Prep
(Percent Responses)

Reason	HS Students	HS Special Needs	PS Students
Interested in/liked Program/something new	22	29	16
Interested in subject matter	12	10	5
Good for getting into college	13	3	43
Good for career	17	7	11
Challenging	1	4	2
Need specific credits	8	14	0
Chance to learn	17	9	21
Best program offered	11	29	4
Placed in/told to enter	8	6	4
Other	7	6	11

Data from student focus groups supported the above findings. Students stated that guidance counselors and teachers played a significant role in their entry into Tech-Prep. When asked why they became involved in Tech-Prep, students responded that they enrolled because: (1) they wanted to; (2) they were selected to be in it by guidance counselors; and (3) teachers recruited them.

Guidance counselors, college admissions officers, and post-secondary administrators were probed during their interviews on who should be enrolled in Tech-Prep. High school guidance counselors said they based recruitment on students' interests, initiatives, and choice. Some guidance counselors also said that they encouraged students who were interested in technology, applied study, and/or seamless curriculum, while others stated that they decided which students should go to Tech-Prep based on test scores and report cards. The majority of post-secondary administrators and admission staff said that students were not "flagged" as Tech-Prep students; however, many suggested the need for a system of "flagging" Tech-Prep students so that their institution could do a better job in supporting students enrolled in the program.

Transition to Post-secondary Institutions

High school teachers, post-secondary faculty, and post-secondary students were asked for their perceptions of the difficulty experienced by Tech-Prep students in making the transition from high school to college. Results are presented in Table 13. Teachers and administrators perceived a greater degree of difficulty among students in making the transition than did the students themselves. Approximately 30% of the students indicated they had no problem, only 11% of the post-secondary faculty and 8% of the high school faculty perceived that there were no problems.

When respondents were probed about the specific difficulties that might affect transition, both similarities and differences in perception were identified.

- The two greatest difficulties according to all respondents was taking on 'more responsibility' and 'adjusting to a new routine'.
- The biggest discrepancy occurred with the item 'being away from home'. Both high school and post-secondary faculty predicted that this might have a considerable impact on transition, but students' responses indicated that this was not the case.
- Finding a job was an issue for students. Faculty and teachers did not perceive this as posing a difficulty; however, 25% of the students said this was a major difficulty.
- Other significant difficulties were related to doing assignments and selecting courses.

Table 13
Difficulty in Transition from High School to College
(Percent Responses)

Difficulty of Transition	**P.S. Faculty**	**H.S. Faculty**	**P.S. Student**
Extremely difficult	3	0	8
Very difficult	2	5	5
Some problems	43	39	32
Little problem	41	48	33
No problem at all	11	8	30

Type of Difficulty	**P.S. Faculty**	**H.S. Faculty**	**P.S. Student**
Being away from home	20	28	1
Doing assignments	24	24	27
Finding their way around campus	9	5	13
Getting to know faculty	18	9	9
Selecting courses	17	16	25
Making friends	9	8	13
More responsibilities	42	40	30
Using computers	3	7	9
Adjusting to a new study routine	48	44	50
Finding a job	9	8	25
Other	14	8	10

Question Three: How is Tech-Prep implemented?

The purpose of this question was to determine how Tech-Prep was implemented within three domains: 1) the designing and developing of Tech-Prep programs, 2) the designing and presenting of Tech-Prep curriculum, 3) and the developing and sharing of professional Tech-Prep knowledge. Each of these areas was addressed through surveys as well as follow up questions during interviews. A summary of results for each is presented below.

Designing and Developing Tech-Prep Programs

Staff Members Involvement

Secondary and post-secondary faculty, administrators and guidance counselors were asked to indicate their involvement in activities related to the development of Tech-Prep programs. Table 14 summarizes their responses.

Table 14
Involvement in Design and Development:
(Percent of Responses)

Type of Involvement in Tech-Prep during the last three years	High School			Post-secondary		
	Teachers	Administrators	Guidance Counselors	Faculty	Administrators	Admissions Counselors
Served on the planning committee for Tech-Prep.	37	70	51	40	63	5
Participated in Tech-Prep meeting with business or community leaders.	43	77	53	47	66	19
Helped develop the content of the articulation agreements between high schools and community colleges.	31	53	27	45	61	16
Conducted workshops/training on Tech-Prep.	26	34	23	31	22	19

Findings indicate that:

- The majority of administrators surveyed at both high school and post-secondary institutions have been involved in designing and/or developing their Tech-Prep program.
- Approximately half of the high school guidance counselors have assisted in planning, but fewer have assisted in the development of articulation agreements,
- Post-secondary counselors had little involvement in planning the program, and
- Less than half the post-secondary faculty and only one third of the secondary faculty have helped with designing their Tech-Prep program.

Interview data supported these findings. At the high school level teacher involvement was typically characterized by teaching Tech-Prep courses. The most common activity reported by high school administrators was participation in Tech-Prep meetings with business or community

leaders. Administrators also indicated they were often involved with planning committees for Tech-Prep, especially those involved with developing articulation agreements and developing new curricula. Guidance counselors' greatest involvement with Tech-Prep was in advising students although many guidance counselors participated in planning committees and in meetings with businesses.

At the post-secondary level, the faculty's most significant involvement with Tech-Prep was with curriculum development. Faculty have participated on planning committees, met with business, and been involved with developing articulation agreements. Post-secondary administrators have most commonly been involved with planning committees, meeting with businesses, and developing articulation agreements. The lowest levels of involvement among post-secondary stakeholders was found among the post-secondary admissions counselors. These respondents indicated that they frequently did not know which students were Tech-Prep students and generally were not aware of curriculum requirements specific to Tech-Prep.

Involvement of Steering Committees and Articulation Agreements

As part of the documentation of designing and developing Tech-Prep, interview questions also probed the importance of steering committees and the role of articulation.

Interviews with Consortia Directors indicated that steering or advisory committees played an important role during the implementation of the Tech-Prep program. Representatives included: business persons, BOCES staff, school-to-work members, guidance counselors and career center staff, PTA members, administrators such as high school principals, and superintendents ,teachers, and, at the post-secondary level faculty and deans. Frequency of meetings of the steering committee varied considerably. Some held meetings were held monthly, others quarterly, bi-yearly or yearly. Other groups also acted in an advisory capacity for Tech-Prep Programs. These included school-to-career-committees, vocational advisory councils, and school boards. Some consortia did not have a group that acted in an advisory capacity. In these consortia, the lines of communication and planning were informal and used existing administrative structures.

Because of the importance of the role of articulation agreements in Tech-Prep, administrators at the high school and post-secondary levels were probed further regarding their role in the development of articulation agreements. Interviewees indicated that articulation agreements were very important to the functioning of Tech-Prep programs; however, use of the agreement was not as high. Half of those interviewed were aware that articulation agreements were involved during implementing Tech-Prep, but about a fourth of those interviewed did not believe that articulation was part of their Tech-Prep program. These respondents indicated that their schools already had sufficient articulation agreements in place and that these were used for Tech-Prep students. The remainder indicated that articulation was considered unimportant, or was even "inconsequential." Overall, the range of opinions on articulation agreements ranged from "critical" to "good for teachers and parents, not so good for students" to "just a piece of paper."

Designing and Presenting Tech-Prep Curriculum

High school and post-secondary stakeholders were asked to identify their level of involvement in designing and presenting of Tech-Prep curriculum. Responses for high school and post-secondary faculty, administrators, and counselors are presented in Table 15.

Table 15
Involvement In Curriculum Design
(Percent of Responses)

	High School			Post-secondary		
Type of Involvement in Tech-Prep during the last three years	**Teachers**	**Admin.**	**Guidance Counselors**	**Faculty**	**Administrators**	**Admissions Counselors**
Helped develop Tech-Prep Curriculum	69	52	21	65	34	6
Taught Tech-Prep (applied, integrated) course.	85			36		
Advised students on Tech-Prep recruitment and options	47	52	81	26	20	38

Findings indicate that:

- The majority of high school teachers (69%) have helped to develop Tech-Prep curriculum and 85% are teaching or have taught either applied or integrated courses related to Tech-Prep.
- An equivalent number of post-secondary faculty (65%) have helped develop curriculum; however, fewer (35%) have taught or are now teaching applied or integrated Tech-Prep courses.
- Approximately half of the administrators in high school settings are involved in curriculum issues related to Tech-Prep and less than one third of post-secondary administrators are involved in curriculum.
- Guidance counselors at the high school level see their major role in presenting curriculum as that of recruitment. Teachers and administrators see this as a less active role for themselves.

Interviews with high school and post-secondary faculty were used to provide additional information pertaining to the development and offering of Tech-Prep curriculum. Several important themes emerged from the analysis of responses.

High School Teachers Perceptions of Curriculum

High school teachers identified differences between the methods in which traditional courses were taught and the methods in which Tech-Prep courses were taught. Tech-Prep courses were described as hands-on, applied, yielding real life, practical experience, more use of labs, problem-solving activities, explanations, and concrete examples. Teachers indicated that more attention is paid to job activities, such as oral communication, role playing, interviewing, writing resumes, and applying for jobs. Interaction between the teachers and students, and one-on-one interaction are dramatically increased. This affords closer relationships between teachers and students. As stated by one teacher, *"In terms of understanding and application these kids are getting things many*

Regents students are not." Many stated that the difference between their Tech-Prep classes and non-Tech-Prep classes was not the content of the curriculum, but the choices of what to emphasize, when to present the material, and how to present it. Major goals included seamlessness in the curriculum, elimination of remediation, and decrease in wasted teaching time, allowing more advanced techniques to be taught. Working in groups and increased public speaking increased the "show and explain" content and decreased the "lecture and write" content.

Tech-Prep also has enabled teachers to obtain new teaching materials, support from post-secondary schools, and support from business. Projects are usually geared toward a specific job or business. Visits to business organizations, visits from spokespeople of industry, and speakers addressing a variety of job market needs are part of the curriculum.

When asked about some things that worked well when implementing the Tech-Prep curriculum, high school teachers responded:

- The applied nature of the projects created realism for the students, " what kids learn in technology courses validates what they have been learning in other academic courses."
- In many sites, class size was smaller, so individual pupil attention was increased.
- Students enjoyed working, discovering, and learning more independently.
- Students practice problem-solving on their own.
- Students were learning how to control themselves, maintaining higher responsibility, managing their time better, and controlling the outcomes of deadlines.

For the teacher, curriculum freedom meant adjustment to a fluid curriculum:

- Teachers were more able to demonstrate their experience and become involved in the topic.
- Teachers were helping each other and used similar and consistent strategies.
- Teachers were communicating with those in other buildings, including both other high schools and peoples in the post-secondary.
- Teacher to administration communication was greater.

Post-secondary Faculty Perceptions of Curriculum

Implementation of curriculum for the post-secondary faculty also was viewed in a positive manner but in a slightly different way. In general, post-secondary faculty viewed Tech-Prep as an opportunity to recruit, as a means of providing a link with business and community, and as a way of improving students' responsibility for their own learning.

- Faculty indicated that the guidance counselor at the respective high school was in the most critical position for this program, but that follow- through is needed at the post-secondary level. They would like more dedication of the admissions and counseling time to Tech-Prep so that students would be identified as part of the Tech-Prep program.
- The faculty commented on the applied nature of the courses, the increased student-teacher interaction, the job and career orientation, and the increase in the amount of material that can be covered.

- Faculty indicated that the continued role of and support of local businesses is important, but that they assistance in increasing this involvement.

Students' Perceptions of Curriculum

During their focus groups, students were asked for their impressions of the delivery of Tech-Prep curriculum. Specifically, they were asked whether or not the Tech-Prep program was covering what they would need to know to be successful in a future job and to give examples of things that were covered that were job related. A summary of responses includes:

- Students unanimously responded 'yes', they were getting the knowledge and skills needed to get a job and to be successful.
- Specific examples that were considered helpful included a range of activities from internships, and resume writing to taking responsibility and creating cover letters.
- Students said that the smaller class size improved their study skills.
- When asked about what has been least useful, the students were not able to relate anything that would not be, in at least some way, helpful.

Developing and Sharing a Professional Tech-Prep Knowledge Base

The final area related to the delivery and implementation of Tech-Prep was the development of a professional knowledge base. This included local impact (knowledge base to be used at the local school by local staff) and regional/national impact (knowledge base to be used across multiple districts, regions, or the national level). Methods of establishing this knowledge base ranged from visiting other programs to presenting Tech-Prep materials at the national level. All staff participating in Tech-Prep were asked to indicate their degree of involvement via a paper and pencil instrument. These findings are summarized in Table 16.

Table 16
Sharing Professional Tech-Prep Knowledge
By Stakeholder (Percent Responses)

Professional Sharing Activities During the Last Three Years	H.Q. Teachers	Admin.	Guide. Counselors	Post-sec. Faculty	Admin.	Adm. Counselors
Visited other Tech-Prep Programs	27	34	28	19	22	19
Attended national or regional conference on Tech-Prep	58	58	35	38	44	31
Presented material at regional Tech-Prep conference	20	17	64	15	17	22
Presented material at national Tech-Prep conference.	2	5	1	3	7	0

Findings include:

- Only a few of the participants have visited other Tech-Prep sites, but many have attended conferences where they could hear about other sites.

- One fourth to one third of all stakeholder groups have conducted training at the local or regional level.
- Guidance counselors are the most active participants at the regional level.
- No major differences are found for this area between secondary and post-secondary teachers and administrators, but a major difference was found for guidance counselors and post-secondary admissions advisors.

Question Four: What support mechanisms are in place for Tech-Prep staff?

The purpose of the fourth evaluation question was to document processes and issues related to support for Tech-Prep. Data were collected through surveys and interviews. High school teachers and administrators and post-secondary faculty and administrators completed surveys. High school and college administrators' interview included questions on this topic.

Faculty and Classroom Support

Teachers and administrators at the high school level, and faculty and administrators at the post-secondary level were asked to address three kinds of support for Tech-Prep, specifically, planning time, staff development opportunities and access to materials for the classroom. Summarized in Tables 17 and 18 are the responses for secondary and post-secondary respondents.

- At the high school level, it appears that, in general, support was provided for classroom materials and staff development; 84% of teachers and 88% of administrators indicated that they had sufficient or outstanding support for classroom materials; 84% of teachers and 99% of administrators perceived sufficient support for staff development.
- At the high school level, perceptions of support for planning varied. Only 69% of the teachers indicated that they had enough planning time; 87% of administrators perceived that they did.
- At the post-secondary level respondents generally indicated sufficient support for staff development (92% administrators, 81% faculty);
- Post-secondary faculty indicated insufficient support for classroom materials 12% of the time and no support 26% of the time, compared to administrators who indicated insufficient support 6% of the time and no support 6% of the time.
- Eleven percent (11%) of post-secondary faculty perceived insufficient time for planning; 25% indicted that they had no support for planning. Administrators responded 18% and 3% respectively.

Table 17
Level of Support for Resources as Reported by Secondary Teachers and Administrators (Percent Responses)

	Level of Support							
Resource	**Outstanding**		**Sufficient**		**Insufficient**		**No support**	
	Admin.	Teacher	Adman	Teacher	Adman	Teacher	Adman	Teacher
Materials for the classroom	36	36	52	48	10	12	2	3
Staff Development	46	26	53	58	1	16	0	1
Planning time	32	13	55	55	11	27	1	5

Table 18
Level of Support for Resources as Reported by Post-Secondary Faculty and Administrators
(Percent Responses)

Resources	Level of Support							
	Outstanding		Sufficient		Insufficient		No support	
	Adman	Faculty	Adman	Faculty	Adman	Faculty	Adman	Faculty
Materials for the classroom	21	20	67	43	6	12	6	26
Staff Development	24	23	68	58	6	6	3	13
Planning time	15	24	64	40	18	11	3	25

Areas for Future Staff Development

In addition to the above information pertaining to staff development, faculty, counselors and admissions staff, and administrators at both the secondary and post-secondary level were asked specifically about their involvement in staff development opportunities. The purpose of this question was to address what areas of staff development might be provided in the future. Secondary responses are summarized in Table 19, the post-secondary responses are summarized in Table 20. Major findings include:

- Teachers and guidance counselors would like staff development on topics related to recruitment and placement of students, school/business relationships, school-to-work, and integration of vocational and academic courses.
- High school teachers would like staff development in curriculum design.
- Administrators at both levels have some need for staff development on integration of curriculum and job placement services.
- Post-secondary administrators would like information on school-to-work opportunities.
- Admissions and guidance counselors would like information related to labor market trends, program promotion, school/business cooperation, and career counseling.

Table 19
Staff Development Needs (High School)
(Percent Responses)

Staff Development Content	High School Administrator				High School Teachers				High School Guidance Counselors			
	Have attended	Will attend	Would like to attend	No need to attend	Have attended	Will attend	Would like to attend	No need to attend	Have attended	Will attend	Would like to attend	No need to attend
General information about Tech-Prep.	91	3	3	4	85	5	4	6	71	21	5	3
Recruitment, placement, and retention of students for Tech-Prep.	66	5	18	11	41	8	33	18	46	34	15	5
School relationship with business/industry/labor.	65	10	22	3	37	10	46	7	25	34	37	4
School-to-work information	78	12	9	1	51	10	34	6	29	45	24	1
Integrating vocational and academic content	65	10	22	3	50	10	35	6	41	34	22	4
Promoting cooperation between secondary and post-secondary staff	64	15	15	5	42	13	36	9	31	35	29	6
Job placement assistance for students	39	13	27	25					13	33	48	5
Curriculum development					59	11	24	6				
Information on labor market trends.									22	35	37	7
Methods of promoting Tech-Prep to various consumers.									23	37	27	12
Promoting cooperation between secondary and post-secondary staff									22	32	37	10
Career development counseling for students									38	28	31	3

Table 20
Staff Development Needs (Post-secondary)
(Percent Responses)

Staff Development Content	Post-secondary Administrators				Post-secondary faculty				Post-secondary Admissions			
	Have attended	Will attend	Would like to attend	No need to attend	Have attended	Will attend	Would like to attend	No need to attend	Have attended	Will attend	Would like to attend	No need to attend
General information about Tech Prep.	91	0	0	10	76	5	6	13	60	17	17	7
Recruitment, placement, and retention of students for Tech-Prep.	41	14	30	16	40	11	28	21	30	30	33	7
School relationship with business/industry/labor.	55	8	25	13	42	10	34	14	19	32	23	26
School-to-work information	61	10	22	7	37	14	33	17	32	29	19	19
Integrating vocational and academic content	55	13	28	5	50	9	31	11	20	30	27	23
Promoting cooperation between secondary and post-secondary staff	63	10	18	10	48	7	23	22	10	19	39	32
Job placement assistance for students	22	5	38	35					17	10	43	30
Curriculum development					62	7	19	13				
Information on labor market trends.									16	13	52	19
Methods of promoting Tech-Prep to various consumers.									16	23	45	16
Promoting cooperation between secondary and post-secondary staff									16	23	45	16
Career development counseling for students									23	27	20	30

Organizational Support

Respondents were asked how much support they received from other Tech-Prep stakeholders. Specifically, they were asked about support received from other faculty and teachers, guidance/admissions counselors, administrators, and the business community. Tables 21 and 22 summarize these data.

- High school respondents indicated that support from teachers and administrators was generally satisfactory or outstanding
- Support from high school guidance counselors was rated some what lower, especially by teachers.
- Support from the business community was rated the lowest by high school respondents. Teachers, especially, perceived that there was inadequate support from the business community.
- Post-secondary faculty and administrators perceived sufficient to outstanding support being provided by their peers.
- Post-secondary faculty perceived that the level of support from admissions counselors was low; 33% of the post-secondary faculty indicated that they received limited support from admissions counselors.
- Approximately 50% of both post-secondary faculty and administrators perceived insufficient support from the business community.

Table 21
Level of Support from Peers:
(Percent of High School Responses)

		Support From			
Level of Support	**Respondent**	**Faculty & Teachers**	**Guidance Counselors & Admissions Counselors**	**Administrators**	**Business Community**
Sufficient to Outstand	Post-secondary Administration	90	87	92	73
	Post-secondary Faculty	84	56	70	55
Insufficient to no support	Post-secondary Administration	10	13	8	27
	Post-secondary Faculty	16	44	30	45

Table 22
Level of Support from Peers:
(Percent of Post-Secondary Responses)

Support From					
Level of support	**Respondent**	**Faculty & Teachers**	**Guidance Counselors & Admissions Counselors**	**Administrators**	**Business Community**
Sufficient to Outstanding	High School Administration	90	80	94	55
	High School Teachers	78	68	82	52
Insufficient to no support	High School Administration	10	21	7	45
	High School Teachers	22	32	18	49

Interview Responses to Organizational Support

Interviews with stakeholders supported and added to the above findings; implementation of Tech-Prep programs required a variety of support mechanisms and resources. Some of the most commonly mentioned included: time, money, classroom materials (such as curriculum materials, supplies, textbooks, computer equipment), staff development, and space.

Need for Time: The most frequently mentioned need was for 'time'. All respondents indicated that they used a great deal of time to implement Tech-Prep, and that they needed more time to continue the successful implementation.

Need for Funds: Multiple respondents indicated that budgetary support was a major concern in terms of needed resources. When asked how they currently supported Tech-Prep, a variety of responses were given. Some implemented special Tech-Prep budgets; some incorporated the Tech-Prep needs into already existing budgets; some combined funding with special grants (i.e., Goals 2000) and some had grants from businesses. Several schools indicated that they currently had no funds with which to continue Tech-Prep, if federal/state funds were withdrawn. The administrative quote *"If federal funding went away, Tech-Prep here would not continue"* is representative of many of the responses provided on future funding needs.

Need for Business Support: Interview data from teachers and administrators suggest that the issue of support from the business community is consortium-specific, not statewide; that is, this problem may exist for some consortia, but not for others. For instance, respondents from some consortia provided positive examples of their involvement with the business community (e.g., "The business community loves Tech-Prep, and they have been pivotal in the whole effort.") Some of the specific positive aspects included student opportunities for job shadowing, internships in such places as hospitals and in manufacturing, and mentoring in electronic fields. Other positive aspects of the business relationship, that were noted, included the provision of computers and modest financial support. These relationships often occurred as "in kind" commitments; where businesses provide equipment and training and the schools provided interns that were better qualified. Support from businesses could be represented by the following quote:

> *"...they (the businesses) want to hire our graduates, and they have not always been able to do that. Their input ensures that students acquire the skills they need in the work place."*

Among consortia where support from the business community was perceived as "not adequate", the relationship was often described as difficult to develop. Many reasons were cited for this difficulty. In rural areas there was a lack of big industry base; in others, there were no large businesses close enough to work with the schools. An additional problem mentioned within some consortia was the presence of too many other competitors for business support; an example being School-to-work. In some consortia or schools, where the relationship with the business community was not what it might be, there was usually a strong feeling that the consortia needed more business involvement. One specific area of input that was often noted in the interview process as desired by schools from the business community was involvement with curriculum writing.

Question Five: What are the perceived outcomes of Tech-Prep?

The purpose of the fifth evaluation question was to determine the perceived outcomes of the New York State Tech-Prep Program for various stakeholders. Individual summaries are provided for (1) outcomes related to students, (2) outcomes contributing to development of program staff, and (3) outcomes contributing to community, business, and school relationships.

Outcomes Related to Students

Perceived outcomes related to students were collected from multiple stakeholder groups. Students, program staff, consortia directors, and local community members were asked to indicate their perceptions of student outcomes. Both quantitative and qualitative methods were utilized to obtain the data.

Student Perceptions of Outcomes

High school students, high school students with special needs, and post-secondary students were asked to indicate their perceptions of outcomes related to Tech-Prep in three ways. First, they were asked to indicate degree of agreement with a series of Likert-type items regarding their immediate perceptions of Tech-Prep classes. The responses to these items are summarized in Table 23. Second, students were asked to indicate, using a checklist, the skills that they had gained as a result of participation in Tech-Prep. Responses to these items may be found in Table 24. Finally, students were asked to provide their career goals post-high school and post-higher education. These responses are summarized in Tables 25 through 28.

General Perceptions: Examination of the data presented in Table 23 indicates that the majority of students involved in Tech-Prep had positive perceptions of the program. Notable findings include:

- More than 70% of the high school students 'strongly agreed'/ 'agreed' with 6 of the 10 items. These items were: "Classes cover the material I need to know," "The classes are very job-oriented," "The class size is good," "The classes are interesting to me," "The classes are preparing me to get a good job," and "The classes have improved my thinking skills." In addition, 60-70% of the high school students strongly agreed/agreed with: "The classes have increased my awareness of different jobs," "The classes make me work hard," and, "The classes increase my motivation for learning."

- The percentage of high school students with special needs who were in the 'strongly agree/ agree' category was lower than that of high school students on most items. More than 70% of the high school students with special needs 'strongly agreed/agreed' with, "The class size is good" and "The classes make me work hard." However, a lesser amount, only 50-70%, 'strongly agreed'/'agreed' with 3 of the remaining 8 items, which were: "Classes cover the material I need to know," "The classes are interesting to me," and "The classes have improved my thinking skills."

Table 23
Perceptions of Tech-Prep:
(Percent of Student Responses)

Perceptions of Tech-Prep	Post-Secondary Students			High School Students			High School Students Special Needs		
	Strongly Agree/ Agree	Slightly Agree/ Disagree	Disagree/ Strongly Disagree	Strongly Agree/ Agree	Slightly Agree/ Disagree	Disagree/ Strongly Disagree	Strongly Agree/ Agree	Slightly Agree/ Disagree	Disagree/ Strongly Disagree
Classes cover the material I need to know	87	13	0	78	19	3	57	39	5
The classes are very job-oriented.	69	30	2	70	25	5	42	41	19
The class size is good.	81	15	4	79	16	5	74	15	11
The classes have increased my awareness of different jobs.	55	42	4	64	28	7	43	36	21
The classes make me work hard.	70	28	2	69	26	6	71	22	7
The classes are interesting to me.	77	20	4	73	21	6	60	24	16
The classes are preparing me to get a good job.	75	25	0	71	23	6	44	35	21
The classes increase my motivation for learning.	78	22	0	65	28	7	45	40	17
The classes have improved my thinking skills.	78	22	0	73	23	4	61	30	8
My self-esteem has increased because of involvement in Tech. Prep.	64	28	8	48	35	17	35	34	31

- A larger percent of post-secondary students were in agreement with many of the items. Over 80% 'strongly agreed/ agreed' with: "Classes cover the material I need to know" and "The class size is good;" 70-80% 'strongly agreed/agreed' with 5 items, which were: "The classes make me work hard," "The classes are interesting to me," "The classes are preparing me to get a good job," "The classes are increasing my motivation for learning," and "The classes have improved my thinking skills." Sixty to seventy percent (60-70%) 'strongly agreed/ agreed' with: "The classes are very job-oriented" and "My self-esteem has increased because of involvement in Tech-Prep."
- A relatively small percentage of high school students and high school students with special needs, responded positively to the item related to Tech-Prep increasing the students' self-esteem.
- A relatively small percentage of post-secondary students 'strongly agreed/agreed' with the statement that Tech-Prep classes increased their awareness of different jobs.

Specific Skills: Displayed in Table 24 is the percentage of students who indicated that a obtaining a specific skill was the result of participation in Tech-Prep. Notable results from this section included:

- Over 70% of both the high school students and the high school students with special needs indicated that because of Tech-Prep they learned: the ability to work cooperatively, how to follow directions, and how to use their common sense. Over 80% of the high school students with special needs checked the latter skill.

- Over 60% of the post-secondary students indicated that because of Tech-Prep they learned: how to write a resume, how to prepare for a job interview, and the ability to work cooperatively.

- The skills that the smallest percentage of high school students and high school students with special needs checked that they learned because of Tech-Prep were: specific reading skills for the job, methods for dealing with frustration on the job, and punctuality with time schedules.

- Post-secondary students indicated that the job skills most frequently learned from Tech-Prep were related to getting jobs and general work skills. These skills were: how to write a resume, how to prepare for a job interview, ability to work cooperatively, ability to manage time effectively, and use of specific job skills.

- The skills that the smallest percentage of post-secondary students indicated that they learned because of Tech-Prep were: specific reading skills for the job, methods for dealing with frustration on the job, and generating alternate problem-solving strategies.

Table 24
Tech-Prep Outcomes:
Skills Learned Through Tech-Prep by Student Group
(Percent Responses)

Skills	High School Students	High School Special Needs	Post-Secondary Students
Use of specific job skills	64	52	56
How to write a resume	38	15	66
How to prepare for a job interview	41	16	66
Ability to work cooperatively	77	78	60
Ability to manage my time effectively.	58	68	58
How to follow directions.	76	77	56
Responding to feedback from my boss.	44	43	40
How to plan for work to be done.	63	63	49
Generating alternate problem-solving strategies.	55	57	36
Learning to pay attention.	63	66	51
Using common sense.	72	81	47
Remembering how to do things day to day	50	55	40
Workplace social skills	52	58	46
Dealing with frustration on the job.	43	48	33
Punctuality with time schedules	46	49	40
Specific reading skills for the job.	42	42	27
Specific math skills for the job.	53	54	40

Career Goals: High school students and high school students with special needs were asked what they planned to be doing 6 months after graduating from high school and five years after graduating from high school . The responses to these questions are summarized in Tables 25 and 26.

- A majority of high school students and high school students with special needs indicated that they planned to attend some type of post-secondary institution within six months of graduating from high school. Over 80% of high school students and high school students with special needs reported that they were planning on continuing with some type of higher education.

- When asked about their long term goals, a large majority of students, 75% of the high school students and 82% of the high school students with special needs, stated that they would be working five years after high school. A smaller percentage, 18% of the high school students and 22% of the high school students with special needs, gave a general response of "being in

school," while 8% of the high school students and 7% of the high school students with special needs stated that they would be in graduate school.

Table 25
Future Plans: Six Months Out of High School
(Percent Responses)

Plans	High School Students	High School Students Special Needs
Go to College - general	72	65
Go to college - 2 year	4	12
Go to college - 4 year	2	2
Technical School	3	1
Work	22	26
Military Service	5	54
Take Time Off	2	1
Undecided	3	6
Other	1	1

Table 26
Future Plans: Five Years Out of High School
(Percent Responses)

Plans	High School Students	High School Students Special Needs
College	18	22
Graduated School	6	7
Medical School	2	0
Working	75	82
Military Service	3	7
Undecided	5	15
Other	2	0

- When directly asked, "Do you plan to go to college?" 94% of the high school students and 90% of the high school students with special needs said, "Yes." The three most popular areas of specialization for the high school students were engineering/technology (25%), health/human services (23%), and business/office/marketing (20%) The three most popular areas of specialization for the high school students with special needs were health/human services (20%), arts/humanities (17%), and engineering/technology (15%).

Table 27
High School Students:
Future Area of Employment
(Percent Responses)

College Plans	High School Students	High School Students Special Needs
Do not plan on college	5	10
Plan on college	95	90
SPECIALIZATION		
Agriculture	2	3
Business/Office/ Marketing	20	7
Engineering/ Technology	25	15
Health/ Human Services	23	20
Mechanical/ Industrial Trade	8	6
Arts/Humanities	10	17
Math/Science	4	6
Education	6	13
Undecided	10	17
Other	5	6

Post-secondary students were asked what their plans were for 6 months and 5 years after graduating from college. The results are presented in Table 28. Findings included:

- 47% stated that they would be working 6 months after college, but they did not specify in what field.
- 29% stated that they would be working in a field very similar to their area of concentration in school.
- 11% said that they would be in school, for example, transferring to another school, going to graduate school, or going to law school.

When asked what they would be doing 5 years after graduating from college, responses included:

- 50% said that they would be working but did not specify in which field.
- 37% said that they would be working in a field similar to their area of concentration.

- 4% said that they would be in either graduate or a non-specified type of school; 4% said that they would be in medical school.
- 4% were undecided as to what they would be doing.

Table 28
Future Plans: Post-Secondary
(Percent Response)

Future Plans	Six Months out of College	Five Years out of College
Grad School/More School	11	4
Law School	2	0
Medical School	0	4
General Working	47	50
Working in Tech-Prep Field	29	37
Working in non-Tech-Prep Field	0	2
Military Service	4	0
Take Time Off	4	0
Undecided	4	4

Program Staff Perceptions of Student Outcomes

High school teachers, guidance counselors, and administrators, and post-secondary faculty, admission/career counselors, and administrators also were asked to respond to survey items pertaining to a variety of direct student outcomes as a result of Tech-Prep. The results from these survey items are summarized in Table 29. Interview data from program staff provided additional supporting documentation of perceived student outcomes.

Examination of Table 29 indicates that program providers' perceptions of student outcomes related to participation in Tech-Prep were positive. Results included:

- Over 90% of respondents agreed that:
  "Tech-Prep is beneficial for (former general track and Regents) students", "Tech-Prep helps to orient students to current work place requirements," "Tech-Prep program helps retain students who may have been at-risk," "Students have positive attitudes about their experiences with Tech-Prep," "Student self-esteem is raised because of the Tech-Prep program," and *"Tech-Prep effectively prepares students for post-secondary education and/or future employment."*

- Over 70% agreed that: *"Students seek more career guidance after joining Tech-Prep," "Tech-Prep courses are appropriate for college-bound students,"* and *"Students in the Tech-Prep program are more focused on career goals than are non-Regents program students."*

- The further program staff were removed from daily contact with students, the more they agreed that outcomes were related to participation in Tech-Prep. That is, high school administrators, post-secondary administrators, and post-secondary admissions counselors had higher levels of agreement than did high school and college instructors and high school guidance counselors.

- Over 95% of all program staff agreed with the statement, "Student self-esteem is raised because of Tech-Prep." This is contradictory to student responses to a similar item, where less than 50% of the high school students and the high school students with special needs agreed.

Table 29
Perceptions of Tech-Prep:
(Percent of Staff Responses)

Perceptions	High School Teachers	High School Guid.	High School Admin.	Post-Second. Faculty	Post-Second. Admis.	Post-Second. Admin.
Tech-Prep is beneficial for former "general program" students.	94	96	96		97	
Tech-Prep is beneficial for students				98		100
Tech-Prep is beneficial for "Regents program" students.	88	90	100		90	
Tech-Prep helps to orient students to current work place requirements.	95	100	100	96	100	95
Tech-Prep effectively prepares students for post-secondary education and/or future employment.	94	96	99	97	100	100
I believe that the Tech-Prep program helps retain students who may have been at-risk.	91	95	99	99	97	98
Students have positive attitudes about their experience in the Tech-Prep program.	96	95	99	98	100	100
Student self-esteem is raised because of Tech-Prep Program.	95	96	100	98	100	100
Students seek more career guidance after joining Tech-Prep.	81	81		98	92	
Tech-Prep has not changed vocational education	43	37		19	27	
Tech-Prep courses are appropriate for college-bound students.	87	77		89	90	
Students in the Tech-Prep Program are more focused on career goals than are non-regents program students	77	77			85	

Qualitative data collected during interviews supported the above findings. Specific comments by stakeholders are presented below:

Teacher Comments: Overall, teachers perceived Tech-Prep as contributing to three areas: 1) students' academic achievement, 2) students' attitudes toward school and self, and 3) students' behavior.

Teachers' comments related to perception of an increase in students' academic achievement as a result of Tech-Prep include:

- Students see the importance of what they were learning, Tech-Prep courses have a practical use.
- Students play a more active role in their learning.
- Tech-Prep keeps more students in school because of the strong connection between school and career; students learn about this connection and become more focused on their future careers.
- Students are willing to take more difficult courses.
- More students want to go to college.

Comments related to teachers' perceptions of improved student attitudes because of participation in Tech-Prep include:

- Student motivation increases because of Tech-Prep as does students' self-confidence.
- Students are motivated to take higher level courses.
- Students are more enthusiastic and see a greater value in what they are learning.

Comments focusing on improvement in students' behavior are as follows:

- The increase in teamwork among the students is beneficial to their social skills.
- There is a decrease in intimidation among the students and more friendly competition.
- Students develop interpersonal as well as problem-solving skills.

College Faculty Comments: Post-secondary faculty also had positive comments about the impact of Tech Prop on students. The majority of their responses emphasized outcomes related to academic achievements. Comments representative of post-secondary faculty include:

- Tech-Prep keeps students in school.
- Tech-Prep teaches students how to be independent and critical thinkers.

High School Guidance Counselors Comments: High school guidance counselors indicated the academic advantages of Tech-Prep for selected students, especially those who were not enrolled in the Regents track. They also emphasized the impact of Tech-Prep on student outcomes related to social and emotional growth and career selection. Sample comments included:

- Students' self-esteem increases.
- Students are better prepared for the job market, especially in technology.
- Tech-Prep promotes social skills for the students.
- Tech-Prep exposes students to more experiences and networking.
- Students' academic performance is improved.
- Students are provided with alternative types of learning/instruction.
- Students show a greater interest in going to college.

- There is more engagement between teachers and students.

Consortia Directors' Perceptions of Student Outcomes: When consortia directors were asked how the Tech-Prep program benefited students, they provided a variety of responses. These included:

- Students are better focused on their field of interest.
- Students experience more "hands-on" learning and more relevant work.
- Study skills of the students are increased.
- Students' motivation increases.
- Students' attendance improves.
- Transition from high school to post-secondary and from school-to-work is easier.
- Students are better prepared for their careers and develop marketable skills.
- Students are better prepared for college.
- Duplication of course work at college is eliminated.
- Students improve their critical thinking skills.
- Students can transfer credits from high school to post-secondary.
- Increased rigor.
- There is no difference between Tech-Prep and Regents program.
- Tech-Prep encourages a team approach.
- Tech-Prep uses a work-study approach.

The opinions of the site directors can be more clearly seen in the following quotes:

> *"Tech-Prep lets the kids see the bigger connection and the reason why they are going to school, the connection between high school, college, work world, and other responsibilities."*

> *"A student summed it up well when she said, 'Now when I go to college, I already know how to write a college paper, where the bookstore and library are, where to park, how to use their resources. I can go and concentrate on why I am there...And I know I can do it...I did a college course as a junior in high school and got a B, and the teacher did not know I was a BOCES student."*

> *"The program's most important aspect is its ability to bring relevant experience to the classroom. Students have very few life experiences from which they can draw upon to make connections; Tech-Prep allows them to do that. In addition to that, Tech-Prep does something for the middle 50% of students that is traditionally not done. Traditional academic approaches do not address the varying learning styles of the student."*

And,

> *"An informal evaluation found out that students are more apt to attend, enjoy, and can understand why they are learning. Especially in applied math, students can feel 'Ah-hah'*

more, Students enjoy doing things instead of just sitting in the class. Some of their grades are now B+ which were C's before."

Local Decision Makers' Perceptions of Student Outcomes: Responses of local Tech-Prep decision-makers echoed those of many of the other stakeholders. Community members, business representatives, and school board members perceived Tech-Prep as contributing to student outcomes in the following ways:

- Students have broader options, more self-esteem, and motivation.
- Students have more marketable skills and more training than some of the actual employees.
- Students are able to be employed because they have gained work experience.
- Students are better prepared to compete at the college level because the quality of students graduating from high school is better.
- Those students that normally would have not enrolled in college are doing so.
- Standards have been raised and articulation agreements with various SUNY campuses facilitate students enrollment.

Outcomes Contributing to Development of Program Staff

During their interview, high school teachers and post-secondary faculty were asked, "What opportunities and/or challenges has Tech-Prep presented for you as a teacher". A variety of outcomes directly supporting instructional staff were noted. These include:

- High school teachers' relationships with others improved. For example, respondents indicated that involvement in Tech-Prep increased the quality of their relationships with other teachers, provided them with more opportunities to share information with other schools, and allowed them more opportunities to communicate with parents, community members, and businesses. Tech-Prep also changed their relationship with students. One teacher responded that Tech-Prep

  "... expanded my horizons in teaching methods, away from lecture structure, adjusting to being a facilitator as opposed to 'king of the classroom' divulging information."

- High school teachers believed they had become better teachers because of Tech-Prep. They were given more leeway in developing their curriculum, and in doing so were required to increase their involvement with businesses and business operation; they had to keep themselves more updated on current issues and applications; they had to change their style of teaching and had to teach in new and innovative ways.

- Teachers also indicated that they gained new knowledge that was important in and of itself. For instance, teachers believed that they were given more opportunities to attend training workshops and other types of staff development than were non Tech-Prep teachers. Several teachers specifically indicated that they were given the opportunity to extend their math and science backgrounds.

- Post-secondary faculty saw Tech-Prep as a means to more in-depth contact with students and with high school teachers. They perceived this continuity as benefiting themselves, not just the students.

- Post-secondary admissions and career counselors also were asked about opportunities Tech-Prep had presented to them. They responded to this question by stating that Tech-Prep had given them the option to participate in job activities, such as field experiences and internships.

Outcomes Contributing to Community, Business, and School Relationships

Administrators were asked about their school's relationship with local businesses and others in the community; that is, "Has Tech-Prep enhanced your school's relationship with local business organizations, the community, and other secondary and post-secondary schools?"

The majority of administrators indicated that their school's relationship with local businesses had been enhanced. Some of their comments included:

- The number of students interested in the business organizations had increased.
- Businesses provided sites for shadowing, apprenticeships, and library resources.
- Businesses provided them with advice for their curricula.
- Students were given tours of local businesses.
- Students participated in mock interviews with local businesses.
- Local businesses provided mentoring for the students.

Administrators also commented on their school's increased relationship with colleges. Comments included:

- There was an increase of communication between schools.
- The number of students going to post-secondary school increased.
- Students were better prepared for college, especially in math and science.

A few administrators commented on their school's relationship with other secondary schools indicating that secondary schools were communicating more with each other now and that high school teachers were coming together and working together more.

Question Six: What are the perceived barriers to implementing Tech-Prep and what areas are in need of improvement?

The sixth evaluation question was used to document the perceptions of stakeholders regarding barriers to implementation of Tech-Prep, areas of the Tech-Prep program in need of improvement, and future areas of emphasis. Data were collected via paper and pencil instruments and through interviews.

Barriers to Implementation

Teachers and Faculty

High school teachers and post-secondary faculty were asked, "Are there currently any barriers to implementation of Tech-Prep? For instance, are there some things that did not work or that made implementation harder?" High school teachers identified several areas of concern.

- A major issue focused on a fear of program elimination and the need for continuous funding. This was supported by comments related to a need for: more teachers, more courses, more general materials, and funds for student transportation to and from the sites.

- The amount of time and effort needed for implementation and maintenance of the Tech-Prep program was also an issue. This included a need for: more common preparation time with other teachers, longer periods to work on projects, more lab time (in competition with Regents courses), and more staff development.

- Need for improved communication with a variety of groups and people was perceived as an issue for teachers. Topics included: weak relationship with post-secondary schools, need for better relationships with articulation, need for improvement in communication with guidance counselors, need for better public relations with the community, need for more administrative support in areas such as scheduling, and, need for more input from the state.

- Issues in the Tech-Prep curriculum also were discussed. Common topics included: the curriculum was too long, teachers had trouble finishing it; need for smaller class sizes; and, need for resource teachers for students with special needs.

Typical comments by teachers pertaining to barriers or areas in need of improvement include:

> *"Guidance counselors don't like working with the teachers and are by no means helping the situation of the projects. Not slotting the kids correctly hurts teachers, kids, and the program."*

> *"There is nothing from the state to tell me if I am going in the right direction."*

A large number of high school teachers expressed a perception of change in state standards as a barrier to the Tech-Prep Program. They feared that students who failed 7th and 8th grade math or science would now be placed in Tech-Prep courses even though it was not their specific career choice. Several teachers feared that administrators now viewed Tech-Prep as a sort of *"...dumping ground,"* or as one teacher put it, *"...a catchall for administrators to throw students who are non-Regents into."*

Post-secondary faculty were asked the same question as were the high school teachers pertaining to barriers to implementation of Tech-Prep or areas in need of improvement. Their comments included the following ideas:

- Funding is a problem; no one is sure for how long the money will be there.
- Some faculty have the impression that Tech-Prep is just a fad and will eventually go away.
- There is a need for more faculty.
- There should be an increase in the number of students contacted to join Tech-Prep.
- Guidance counselors need to be more aware of and knowledgeable about the program.
- Guidance counselors need to treat the students as college-bound.
- There are accreditation and articulation problems for college credit.

Areas in Need of Improvement

During interviews high school teachers, post-secondary faculty, and high school guidance counselors were probed as to what resources they would need and from whom to improve Tech-Prep. Responses included:

- A need for more support from the federal government and the need for more money.
- A need for more high school-post-secondary programs.
- A need for more high schools to be involved.

Communication was stressed by most respondents, with ideas including needs for:

- More and better communication, for example: more communication among the students, parents, and community, more communication between guidance counselors and students, more time to work with high school faculty, and, more collaboration among faculty, high schools, and businesses.
- More communication and support from the school board and from administration.
- An increase in guidance counselors' involvement in the program.
- More articulation between schools.
- An increase in teacher involvement in the development of the program.

Improvements needed for the Tech-Prep curriculum were also discussed, with issues including need to:

- Update the curriculum.

- Provide less in-depth applications.
- Provide better guidelines.
- Provide better materials.
- Increase preparation of teachers and material.
- Involve support staff on development, training, and delivery.

High school guidance counselors commented specifically on the lack of articulation agreements and the difficulty in getting industry's involvement in rural areas. Their suggestions for improvement included:

- Resolve scheduling conflicts.
- Raise the academic standards.
- Expand guidelines on how to apply funds.
- Get all faculty on board.
- Make parents more aware of Tech-Prep.

Areas in need of assistance identified by site directors included:

- More coordination from the State Department of Education.
- More funds.
- More information on other consortia because there is no need to "reinvent the wheel."
- Information on where the state is going with respect to Regents exams and where Tech-Prep fits into this.

A number of suggestions were made by local decision-makers regarding ways in which Tech-Prep could be improved. These suggestions included:

- Communication with the community should be improved. Suggested methods include: finding ways to improve communication between schools and businesses, soliciting the business community more actively to participate in Tech-Prep, establishing more contacts between schools and businesses, providing more publicity; letting the people know that the program is fantastic, and reaching more districts and more students.

- Communication between schools and programs should be improved. Methods suggested were: correlate the high school and college programs better with continuous dialogue and more training for the staff; School-to-Work program and Tech-Prep are duplications of each other; and they should work together instead of separately.

- Develop more resources; that is, provide more funds for Tech-Prep, develop a continuous commitment from the state for teacher training, provide necessary equipment, and expand the number of students for whom Tech-Prep is available.

- Additional areas concerning general improvements were: a need for more persistence and patience from the people involved in the program, a need for more flexibility from the

Department of Labor, and inclusion in the Commissioner's statements on need for the development of multiple technical skills obtained through programs like Tech-Prep.

Future Areas of Emphasis

At the conclusion of every interview, the interviewee was asked to make any additional comments regarding Tech-Prep that had not already been covered, especially areas needing emphasis. High school students comments reflected both positive and negative statements including the following:

- Tech-Prep is a feasible option to the Regents track.
- Tech-Prep demonstrates the utility of college.
- Counseling is key to Tech-Prep.
- Students need more counselors.
- One student commented on how Tech-Prep is perceived by other students by stating, "Some kids thought it was special ed."

High school teachers and post-secondary faculty's comments included the following:

- Without more funding, Tech-Prep will not be able to continue.
- Tech-Prep should not become a dumping ground for administrators to place general education students.
- Guidance counselors and admissions advisors should be more involved with students.
- The number of students involved in Tech-Prep should be increased.

High school guidance counselors stressed the following:

- *"A very enthusiastic and dedicated staff is the key."*
- A typical guidance counselor statement was:
  "Tech-Prep is a terrific opportunity for students to succeed. We have many marginal students where we have huge successes academically and in terms of school adjustment."

Both high school guidance counselors and post-secondary admission/career counselors stressed:

- The need to resolve scheduling conflicts.
- The need to make parents more aware of Tech-Prep.
- The crucial role of integrating academic and vocational skills if Tech-Prep is to be successful.

High school administrators emphasized several issues:

- Tech-Prep should cut across all academic areas in content and in teaching methodology.
- Working with the business community is beneficial and needs to be continued.

- Students really benefit because they explore careers, Tech-Prep allows middle group of students to aspire to college, and it prepares students for the future; this needs to continue and grow.
- Tech-Prep has opened up communication between schools and community colleges; this must continue.
- Tech-Prep's models and paradigms are far superior to traditional education; other programs should learn from them.

Other areas stressed by both high school and post-secondary administrators included:

- The need for continued use of businesses to provide students with opportunities to explore career options and to focus on career opportunities.
- Continuation of Tech-Prep as a means of encouraging more students to go to college.

Appendix A

Survey Methodology and Respondents

Table A-1
List of Consortia and the Types of Surveys Distributed

Consortium	Consortium Director	High school	Special Needs	Post-.secondary
Bronx Community College	X	X		X
Broome Community College	X	X	X	X
Cattaraugus-Allegany-Erie-Wyoming BOCES	X	X	X	X
Corning Community College	X	X		X
Dutchess/Ulster Tech-Prep Consortium	X	X	X	X
Eastern Suffolk BOCES	X	X		X
Erie BOCES	X	X		X
Fashion Institute of Technology	X	X		X
Finger Lakes Community College	X	X	X	X
Genesee Community College	X	X		X
Monroe Community College	X	X	X	X
Mount Vernon City School District	X	X	X	X
Nassau BOCES	X	X		X
College of Statan Island	X	X	X	X
NYC Technical College	X	X		X
Niagara County Community College	X	X		X
Onondaga Community College	X	X		X
Orange County Community College	X	X		X
Oneida-Madison BOCES	X	X		X
Putnam N. Westchester BOCES	X	X		X
Queensborough Community College	X	X		X
St. Lawrence-Lewis BOCES	X	X		X
SUNY College of Technology Alfred	X	X	X	X
SUNY ATC at Cobleskill	X	X	X	X
SUNY Delhi College of Technology	X	X	X	X
Syracuse City School District	X	X		X
Tompkins-Cortland Community College	X	X	X	X
Two Year College Development Center	X	X	X	X
Western Suffolk BOCES	X	X		X
Yonkers City School District	X	X		X

General Information of Survey Respondents

In this section, the general demographic data on each survey respondent (high school students, students with special needs, high school teachers, high school administrators, high school guidance counselors, post-secondary students, post-secondary faculty, post-secondary administrators, post-secondary career counselors) are presented.

High School Students

A total of 865 high school students responded to the paper and pencil survey. Fifty-three percent (53%) were male and 47% were female. The mean age was 16.6. The distribution in each grade was: 7% Grade 9, 10% Grade 10, 36% Grade 11, and 48% Grade 12. Fifty-three percent (53%) of students said that they were in Regents program; 47% were not.

The distribution of Tech-Prep programs in which students were enrolled is as follows;

Table A-2
Type of the Tech Program Which Students are Enrolled

Type of Program	%
Engineering/Technology/Applied Math & Science	50
Health/Human services	18
Business/Office/Marketing	15
Mechanical/Industrial trade	5
Arts/Humanities	2
Agriculture	1
Other	9

The distribution of Tech-Prep courses in which students are currently enrolled is as follows;

Table A-3
Type of Course Which Students Were Taking

Type of Courses	%
Engineering/Technology/Applied Math & Science	43
Business/Office/Marketing	23
Arts/Humanities	19
Health/Human services	13
Career Planing/Preparation	7
Math	3
Mechanical/Industrial trade	2
Agriculture	2
Other	1

High School Students with Special Needs

Sixty-eight (68) students responded the separate survey for students with special needs. Fifty-seven percent (57%) were male and 43% were female. The average age was 16.5 years old. More than half of them reported that they were in Tech-Prep program related to engineering/ technology/ applied math & science. Forty-four percent (44%) of them were taking a course in Math, 31% in engineering/technology, 21% in arts/humanities, with the remainder in career planning, and business/office/marketing. Eleven percent (11%) of students indicated that they had an identified disability.

Post-secondary Students

Fifty-seven (57) post-secondary students answered the survey. Forty-three percent (43%) were female and 57% were male. Average age was 19.5. The eldest student was 45 years old while the youngest was 17 years old. Their area of concentration can be seen in Table A-4.

Table A-4
Students' Areas of Concentration

Area of Concentration	%
Engineering/Technology/Applied Math & Science	31
Health/Human services	30
Business/Office/Marketing	28
Arts/Humanities	19
Math	5
Other	4

High School Teachers

The total number of high school teachers who answered the survey was 296. The gender balance was equal. Twenty percent (20%) of them had a Bachelor's degree, 79% had a Master's degree, and 1% had a Doctorate degree. The average length of their service as a teacher was 15.7 years while the longest was 39 years and the shortest was 1 year. On average, they had been involved in Tech-Prep for 3 years.

Post-secondary Faculty

The total number of post-secondary faculty who responded to the survey was 110. Fifty-three percent of the faculty were male and 47% were female. Sixty-two percent of them held Master's degree, 21% had a Doctorate degree and 17% had a Bachelors degree. The courses they taught covered: Math/science (42%), Engineering/technology (28%), Health/Human Service (11%), Arts & Humanities (8%), Mechanical Industrial Trade (5%), and other (6%).

High School Administrators

Seventy-nine (79) high school administrators responded to the paper-pencil survey. Seventy-two percent were male and 28% were female. Approximately 50% of them were Principals; the remaining categories were: Assistant Principal, Director, Assistant Director, Administrator, Intern, Supervisor, Director, and Superintendent. The average length of experiences as an administrator was 12.2 years. The maximum length was 30 years and the minimum was one year. On average, they have been involved in Tech-Prep for 4.2 years.

Post-secondary Administrators

Forty (40) post-secondary administrators answered the paper and pencil survey. Fifty-six percent (56%) of them were male and 44% were female. Approximately one-third of them held the title of Dean, and the remaining were: Assistant/Associate Dean, Director, President, Vice President, Administrator, and Officer. The average years of experience was 13.3 years with the longest being 36 years and shortest 1 year. They had been involved in Tech-Prep for 3.3 years of average.

High School Guidance Counselors

Seventy-three (73) high school guidance counselors responded to the paper survey. Of those, 45% were female and 55% were male. Ninety-seven percent (97%) of them had Master's degree and 3% had Bachelor's degree. The average years of their experience was 12 years. They have been involved in Tech-Prep, on average, 3.2 years. The average number of students they advised was 73.

Post-secondary Admission/Career Counselor

Twenty-six (26) post-secondary admission/career counselors answered the survey. Forty-four percent were male while 57% were female. Eighty-three percent of them held Master's degree, 13% had a bachelor's degree and 3% had a doctoral degree. On average, they had 13 years of experience as a admission/career counselor. They have been involved in Tech-Prep, on average, for 3 years. On average, they advise 190 students a year.

Consortia: «Site»

Consortia Coordinator Survey Tech Prep Consortium Profile

I. Part One -- General Consortia Profile

The Consortium:

1. Date your Consortium Established? _____
2. Fiscal Year of First Title III Grant _____
3. Does your Consortium have a Governing Board ? _____yes _____no

Consortium Members:

4. How many of each of the following are part of your Consortium ?

Local Area School Districts	_____	Area Voc-Tech Centers	_____
Community/Technical Colleges	_____	Four-year Post-secondary Institutions	_____
Post Secondary Proprietary Institutions	_____	Employers/Businesses and Associations	_____
Labor Groups	_____	Other Agencies	_____

Consortium Staffing:

5. How many FTEs of the following are devoted to consortium staffing ? Professional _____ Clerical _____

Consortium Funding:

6. The amount of your most recent Title IIIE Grant $_____
7. The date of your most recent Title IIIE Grant _____
8. Other Sources of Funding:
   - Other Perkins $_____
   - State $_____
   - Other: $_____

Part Two -- The Program

Model Structure:

9. Please check the following model structure that most closely resembles the one you are implementing in your Consortium:

_____ a. 2 years (11th and 12th grades) of highschool plus 2 years of college (community, junior, or technical)

_____ b 3 or more years of highschool plus 2 years of college

_____ c 2 years (11th and 12th grades) of highschool plus 2 years of college, with options for further study in an articulated program at a 4-year post-secondary institution

_____ d 3 or more years of highschool plus 2 years of college, with options for further study in an articulated program at a 4-year post-secondary institution

_____ e 1 or more years of junior high/middle school plus 4 years of highschool plus 2 years of college

_____ f 1 or more years of junior high/middle school plus 4 years of highschool plus 2 years of college with options for further study in an articulated program at a 4 year post-secondary institution

_____ g Other (Please specify):_____

II. Part Two – The Program (cont)

Career Clusters:

10. Does your Consortium have defined Career Clusters ? _____yes _____no

11. If yes, Check the following Career Clusters that apply to your Consortium:

____a. Agriculture
____b. Business/Office/Marketing
____c. Engineering/Technology
____d. Health/Human Services
____e. Mechanical/Industrial Trade
____f. Arts/Humanities
____g. Other: _____

12. Does your Consortium have a Consortium-Wide Core Program ? _____yes _____no

13. If yes, check the following Core Program elements that apply to your Consortium:

____a. Developing individual secondary/post-secondary course plan
____b. Choosing a broad career cluster
____c. Choosing an occupational specialty
____d. Taking applied academic courses
____e. Taking academic or occupational courses related to career cluster
____f. Career development activities
____g. Workplace experiences

14. Check the following areas of course/program articulation that apply to your Consortium:

____a. Agriculture
____b. Business/Office/Marketing
____c. Engineering/Technology
____d. Health/Human Services
____e. Mechanical/Industrial Trade
____f. Arts/Humanities
____g. Other: _____

III. Part Three – Tech Prep Students

Highschool Students:

15. How many Tech Prep schools have students enrolled in Tech Prep for SY 1996-97 ? _____

16. How many highschool students are enrolled in Tech Prep for SY 1996- 97 in your consortium ? _____

17. Does your consortium have a consortium-wide definition of a Tech Prep Student ? _____yes _____no

18. If yes, check all of the following that apply to your consortium-wide definition of a Tech Prep student ?

____a. Student elects Tech Prep
____b. Student develops a plan
____c. Student takes vocational/technical courses
____d. Student takes applied academic courses
____e. Student participates in workplace experiences
____f. All students not in college preparatory program
____g. All students

III. Part Three – Tech Prep Students (cont)

19. Please list the number of Tech-Prep highschool students and the approximate percent of all students this represents for each grade level:

Grade Level	Number of Tech Prep Students	% of all Students
9th	_____	_____%
10th	_____	_____%
11th	_____	_____%
12th	_____	_____

20. Please indicate the approximate percentage of Tech-Prep students with the following characteristics:

Characteristic	Approximate % of Tech Prep Students
a. White	_____%
b. Black	_____%
c. Hispanic	_____%
d. Native American/Alaskan Native	_____%
e. Asia/Pacific Islander	_____%
f. Unknown	_____%
g. Female	_____%
h. Limited English	_____%
i. Disabilities	_____%
j. Economically/Educationally Disadvantaged	_____%

21. Please indicate Enrollment by Career Cluster:

_____a. Agriculture

_____b. Business/Office/Marketing

_____c. Engineering/Technology

_____d. Health/Human Services

_____e. Mechanical/Industrial Trade

_____f. Arts/Humanities

_____g. Other: _____

22. How many of your consortium's school districts have had highschool Tech Prep students graduate ? _____

a. Total number of students graduated since the program's inception ? _____

b. In the 1996 SY ? _____

Part Three -- Tech Prep Students (cont)

Post-secondary students:

23. Does your consortium have a method for reporting where those students go after graduation ? _____

a. If so, what is it ? _____

24. Please indicate the number of students enrolled in each:

Number of Tech Prep Students	**1993**	**1994**	**1995**	**1996**
Entered Specific Post-secondary programs:				
a. Community/technical college	____	____	____	____
b. Four-year colleges/universities	____	____	____	____
c. Proprietary/post-secondary schools	____	____	____	____
d. Registered apprenticeships	____	____	____	____
e. Armed forces	____	____	____	____
f. Other	____	____	____	____
g. Graduated from articulated post-secondary programs:	____	____	____	____
h. Employed in related jobs after high school:	____	____	____	____

Part Four -- Support to Student with Disabilities

22. Please circle all of the the following services or accommodations, if any, are being used to facilitate access to Tech Prep for students disabilities or who are disadvantaged:

a. No specific efforts

b. Inclusion of special populations coordinators in the Tech-Prep team or in curriculum/staff development

c. Modified curriculum content and/or instructional method to meet the special needs of a particular group (other than accommodation to students' native languages)

d. Materials and/or instruction in the students' native (non-English) language

e. Interpreters (for non-English speaking or hearing-impaired students)

f. Physical access accommodations

g. Special equipment (e.g. to meet the special needs of a particular group)

h. Transportation

i. Child care

j. Coordination with JTPA youth or similar programs

k. Promotional materials (e.g. brochures or videos) aimed at one or more of these special populations

l. Special career guidance

m. Special tutoring

n. other _____

Part Five – Articulation Agreements

23. Indicate the number of articulation agreements for post-secondary institutions in your consortia in the following areas:

General articulation agreements _____
(involves the general principle of cooperation and working together, or the general concept of transfer credit)

Specific articulation agreements _____
(involves a focus on specific occupational specialties, programs, or courses, if an institution has both include it in this category)

Please list these post-secondary institutions:

Part Five – Promotion of Tech Prep

Please check all of the methods that apply to promotion activities that have been used as part of a general consortium-wide marketing effort to promote interest in and acceptance of Tech Prep:

a. Development of Videos on Tech Prep _____
b. Press Releases _____
c. Advertising(print/radio/TV) _____
d. Radio/TV Announcements and Appearances _____
e. Presentations at High Schools and Community Colleges _____
f. Presentations for Employers, Employer Groups, and other audiences _____
g. Logos/logo design contests _____
h. Tech-Prep products (key chains, t-shirts, stickers) _____
i. Career Day/ Trade Shows _____
j. Brochures/Newsletters _____
k. other (please specify) _____ _____

Consortia: HS student _____

High School Student Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep programs we are collecting perceptions about the effectiveness of the program. As a student involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope, seal it and return the envelope to _____.

About You

Gender: __1.Male __2.Female Age:___ Grade Level:___

Regents Program: ___Yes ___No

Tech Prep Program you are in (if it applies) _____

Tech Prep Courses you have taken or are presently taking: _____

_____

_____

Joining Tech Prep

1. With whom did you talk when you were making the decision to enter the Tech Prep program? (Please check all that apply).

__ 1.Parents/Caregivers __2. Teachers __3. Peers
__ 4. Administators __5. Guidance Counselors __ 6. Others:_____

2. Why did you decide to enter the program?

3. How much assistance or information did you receive from your teachers, caregivers/parents and counselors in understanding careers and selecting your career direction? (Please check as many as apply.)

___ 1. a great deal from at least one teacher
___ 2. a great deal from at least one counselor
___ 3. a great deal from parents/caregivers
___ 4. some from teachers
___ 5. some from counselors
___ 6. some from parents/caregivers
___ 7. little or none from teachers
___ 8. little or none from counselors
___ 9. little or none from parents/caregivers

About Tech Prep

4. The following statements are about the Tech Prep program and/or classes. Please indicate your level of agreement with each statement by circling the number that best represents your opinion.

1 = strongly agree 2 = agree 3= slightly agree 4= slightly disagree
5= disagree 6=strongly disagree

	Agreement Scale					
	SA					SD
1. The classes cover the materials I need to know.	1	2	3	4	5	6
2. The classes are very job-oriented.	1	2	3	4	5	6
3. The class size is good.	1	2	3	4	5	6
4. The classes have increased my awareness of different jobs.	1	2	3	4	5	6
5. The classes make me work hard.	1	2	3	4	5	6
6. The classes are interesting to me.	1	2	3	4	5	6
7. The classes are preparing me to get a good job.	1	2	3	4	5	6
8. The classes increase my motivation for learning.	1	2	3	4	5	6
9. The classes increase my thinking skills.	1	2	3	4	5	6
10. My self-esteem has increased because of my involvement in these classes.	1	2	3	4	5	6

5. Please check any of the following that you have learned through Tech Prep.

__ 1. Use of specific job skills.
__ 2. How to write a resume.
__ 3. How to prepare for a job interview.
__ 4. Ability to work cooperatively with peers.
__ 5. Ability to manage my time effectively.
__ 6. How to follow directions.
__ 7. How to respond to feedback from boss.
__ 8. How to plan for work to be done.
__ 9.Generating alternate problem solving strategies.
__ 10. Learning to pay attention.
__ 11. Using common sense.
__ 12. Remembering how to do things day to day.
__ 13. Workplace social skills.
__ 14. Dealing with frustration on the job.
__ 15. Punctuality with time schedules.
__ 16. Specific reading skills for the job.
__ 17. Specific math skills for the job.

Your Future Plan

6. What do you plan to be doing 6 months after High School?

7. What do you plan to be doing 5 years after High School?

8. Do you plan to go to college? ____ 1.Yes ____ 2.No

9. If yes: in what area of specialization?

Consortia: HS Teacher _____

High School Teacher Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep programs we are collecting perceptions about the effectiveness of the programs. As a teacher involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope, seal it and return the envelope to _____.

About You

Gender: ___ 1. Male ___ 2. Female
Highest degree: Bachelors ___ Masters ___ Doctorate___
Advanced certificate in_____.
What courses do you teach? _____.
How long have you been a high school teacher ? _____.
How long have you been a teacher involved in Tech Prep ? _____.

Support for Tech Prep

1. The following are areas in which you may have received support for the implementation of Tech Prep. For each, please circle the number indicating the level of support you have received.

	Outstanding	Sufficient	Insufficient	No support
1. Materials for the class room.	1	2	3	4
2. Staff development.	1	2	3	4
3. Planning time.	1	2	3	4
4. Support from other teachers/faculty.	1	2	3	4
5. Support from counselors/admissions staff.	1	2	3	4
6. Support from administrators.	1	2	3	4
7. Support from the business community.	1	2	3	4

Staff Development

2. The following is a list of staff development topics that address Tech-Prep related issues, for each, please indicate if you have attended and/or how you feel about attending them. (Please circle your responses.)

	Have attended	Will attend	Would like to attend	No need to attend
1. General information about Tech Prep.	1	2	3	4
2. Recruitment, placement, and retention of students for Tech Prep.	1	2	3	4
3. School relationship with business/industry/labor.	1	2	3	4
4. School to work information.	1	2	3	4
5. Integrating vocational and academic content.	1	2	3	4
6. Application of mathematics, science, and/or communications competencies to the work setting.	1	2	3	4
7. Curriculum development.	1	2	3	4

Your involvement in Tech Prep

3. What has been your involvement in the planning and implementation of Tech Prep during the last three years? (Please check as many as apply.)

__ 1. Served on the planning committee for Tech Prep.
__ 2. Helped develop Tech Prep curriculum.
__ 3. Helped develop the content of the articulation agreements between high school and community colleges.
__ 4. Advised students on Tech Prep recruitment and options.
__ 5. Taught Tech Prep (applied, integrated) course.
__ 6. Participated in Tech Prep meetings with business or community leaders.
__ 7. Attended national or regional conference on Tech Prep.
__ 8. Conducted workshops/training on Tech Prep.
__ 9. Presented material at regional Tech Prep conference.
__ 10. Presented material at national Tech Prep conference.
__ 11. Visited Tech Prep programs in other areas.
12. Other

About Tech Prep

4. The following areas reflect attitudes or perceptions about the Tech Prep program. For each, please circle your responses to the following statements using this scale:

1= Strongly agree 2=Agree 3=Slightly agree 4=Slightly disagree 5=Disagree 6=Strongly disagree

	Agreement Scale					
	SA					SD
1. Tech Prep is beneficial for former "general program" students.	1	2	3	4	5	6
2. Tech Prep is beneficial for "regents program" students.	1	2	3	4	5	6
3. Integrating academic and vocational skills is crucial to Tech Prep success.	1	2	3	4	5	6
4. Tech Prep is just another short-lived educational innovation.	1	2	3	4	5	6
5. Tech Prep helps to orient students to current workplace requirements.	1	2	3	4	5	6
6. Tech Prep effectively prepares students for post secondary education and/or future employment.	1	2	3	4	5	6
7. I support the continuation of the Tech Prep Program.	1	2	3	4	5	6
8. I believe that the Tech Prep program helps retain students who may have been at risk.	1	2	3	4	5	6
9. Students have positive attitudes about their experience in the Tech Prep program.	1	2	3	4	5	6
10. Student self esteem is raised through the Tech Prep Program.	1	2	3	4	5	6
11. I encourage students to take higher levels of math and science prior to the implementation of Tech Prep.	1	2	3	4	5	6
12. Students seek more career guidance because of Tech Prep.	1	2	3	4	5	6
13. Tech Prep has not changed vocational education.	1	2	3	4	5	6
14. Tech Prep courses are not appropriate for college-bound students.	1	2	3	4	5	6
15. Students in the Tech Program are more focused on career goals than are non-regents program students.	1	2	3	4	5	6

5. How would you assess the transition of students in Tech Prep program from high school to a post secondary institution? (Please choose one.)

__1.Extremely difficult __2.Very difficult __3. Some Problems __4.Little problems __5. No problem at all

If they faced any difficulty, what were they? (Please check as many as apply.)

__ 1. Being away from home
__ 2. Doing assignments
__ 3. Finding their way around campus
__ 4. Getting to know faculty
__ 5. Selecting courses
__ 6. Making friends
__ 7. More responsibilities
__ 8. Using computers
__ 9. Adjusting to a new study routine
__10. Finding a job
__11. Other _____

6. Please provide us with comments, concerns, and issues you may have about Tech Prep.

Consortia: HS Administrator _____

High School Administrator Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep programs we are collecting perceptions about the effectiveness of the program. As an administrator involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope, seal it and return the envelope to _____.

About You

Gender: ___ 1. Male ___ 2. Female Title: _____.

Years of experience as an administrator _____.

How long have you been involved with Tech Prep as an administrator? _____.

Support for Tech Prep

1. The following are areas in which you may have received support for implementation of Tech Prep. For each, please circle the letter indicating the level of support you have received.

	Outstanding	Sufficient	Insufficient	No support
1. Supplies, materials and equipment.	1	2	3	4
2. Staff development.	1	2	3	4
3. Planning time.	1	2	3	4
4. Support from other teachers/faculty.	1	2	3	4
5. Support from counselors/admissions staff.	1	2	3	4
6. Support from administrators.	1	2	3	4
7. Support from the business community.	1	2	3	4

Staff Development

2. The following is a list of staff development topics that address Tech-Prep related issues, for each, please indicate if you have attended or how you feel about attending them. (Please circle your responses.)

	Have attended	Will attend	Would like to attend	No need to attend
1. General information about Tech Prep.	1	2	3	4
2. Recruitment, placement, and retention of students for Tech Prep.	1	2	3	4
3. School relationship with business/industry/labor.	1	2	3	4
4. School to work information.	1	2	3	4
5. Integrating vocational and academic content.	1	2	3	4
6. Promoting cooperation between secondary and post-secondary staff.	1	2	3	4
7. Job placement assistance for students.	1	2	3	4

Your Invovement in Tech Prep

3. What has been your involvement in the planning and implementation of Tech Prep during the last three years? (Please check as many as apply.)

__ 1. Served on the planning committee for Tech Prep
__ 2. Helped develop Tech Prep curriculum.
__ 3. Helped develop the content of the articulation agreements between high school and community colleges.
__ 4. Advised students on Tech Prep recruitment and options.
__ 5. Visited other Tech Prep programs.
__ 6. Participated in Tech Prep meetings with business or community leaders.
__ 7. Attended national or regional conference on Tech Prep.
__ 8. Conducted workshops/training on Tech Prep.
__ 9. Presented material at national Tech Prep conference.
__ 10. Presented material at national Tech Prep conference.
__ 11 Other _____.

About Tech Prep

4. The following areas reflect attitudes or perceptions about the Tech Prep program. For each, please circle your responses to the following statements using this scale:

1= Strongly agree 2=Agree 3=Slightly agree 4=Slightly disagree 5=Disagree 6=Strongly disagree

Agreement Scale

	SA					SD
1. Tech Prep is beneficial for former "general program" students.	1	2	3	4	5	6
2. Tech Prep is beneficial for "regents program" students.	1	2	3	4	5	6
3. Integrating academic and vocational skills is crucial to Tech Prep success.	1	2	3	4	5	6
4. Tech Prep is just another short-lived educational innovation.	1	2	3	4	5	6
5. Tech Prep helps to orient students to current work place requirements.	1	2	3	4	5	6
6. Tech Prep effectively prepares students for post secondary education and/or future employment.	1	2	3	4	5	6
7. I support the continuation of the Tech Prep Program.	1	2	3	4	5	6
8. I believe that the Tech Prep program helps retain students who may have been at risk.	1	2	3	4	5	6
9. Students have positive attitudes about their experience in the Tech Prep program.	1	2	3	4	5	6
10. Student self esteem is raised through the Tech Prep Program.	1	2	3	4	5	6
11. Articulation agreements are important for Tech Prep success.	1	2	3	4	5	6
12. If federal Tech Prep funds were discontinued, my Tech Prep program would have difficulty in continuing.	1	2	3	4	5	6
13. Administrators are knowledgeable about Tech Prep of funding and curriculum.	1	2	3	4	5	6
14. School board members are knowledgeable about Tech Prep of funding and curriculum.	1	2	3	4	5	6

5. Please provide us with any comments, concerns, and issues you may have about Tech Prep

Consortia: _____ HS student ____

Developmental category: _____

High School Student Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep program we are collecting information about the effectiveness of the program. As a student involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope. Seal it and return the envelope to _____.

About You

Gender: ___1.Male ___2.Female Age:___ Regents Track: Yes No

*Anticipated Graduation Date:*_____

Tech Prep Program you are in (if it applies) _____

Tech Prep Courses you have taken or are presently taking:

Joining Tech Prep

1. To whom did you talk when you were making the decision to enter the Tech Prep program? (Please check all that apply).

__ 1.Parents/Caregivers __2. Teachers __3. Peers
__ 4. Administators __5. Guidance Counselors __ 6. Others:_____

2. Why did you decide to enter the program?

3. How much assistance or information did you receive from your teachers, caregivers/parents and counselors in understanding careers and selecting your career direction? (Please check as many as apply.)

___ 1. a great deal from at least one teacher
___ 2. a great deal from at least one counselor
___ 3. a great deal from parents/caregivers
___ 4. some from teachers
___ 5. some from counselors
___ 6. some from parents/caregivers
___ 7. little or none from teachers
___ 8. little or none from counselors
___ 9. little or none from parents/caregivers

About Tech Prep

4. The following statements are about the Tech Prep program and/or classes. Please indicate your level of agreement with each statement by circling the number that best represents your opinion.

1 = strongly agree 2 = agree 3= slightly agree 4= slightly disagree
5= disagree 6=strongly disagree

	Agreement Scale					
1. The classes cover the materials I need to know.	1	2	3	4	5	6
2. The classes are very job-oriented.	1	2	3	4	5	6
3. The class size is good.	1	2	3	4	5	6
4. The classes have increased my awareness of different jobs.	1	2	3	4	5	6
5. The classes make me work hard.	1	2	3	4	5	6
6. The classes are interesting to me.	1	2	3	4	5	6
7. The classes are preparing me to get a good job.	1	2	3	4	5	6
8. The classes increase my motivation for learning.	1	2	3	4	5	6
9. The classes have improved my thinking skills.	1	2	3	4	5	6
10. I have more self esteem because of my classes.	1	2	3	4	5	6

5. Please check any of the following that you have learned through Tech Prep.

__ 1. Use of specific job skills.
__ 2. How to write a resume
__ 3. How to prepare for a job interview.
__ 4. Ability to work cooperatively with peers.
__ 5. Ability to manage my time effectively.
__ 6. How to follow directions
__ 7. How to respond to feedback from boss
__ 8. How to plan for work to be done
__ 9. *Specific math skills for the job.*
__ *10.Generating alternate problem solving strategies.*
__ 11. *Learning to pay attention*
__ 12. *Using common sense*
__ 13. *Rembering how to do things day to day*
__ 14. *Work place social skills.*
__ 15. *Dealing with frustration on the job*
__ 16. *Punctuality with time schedules*
__ 17. *Specific reading skills for the job*
__ 18. *Specific reading skills for the job*

Your Future Plan

6. What do you plan to be doing 6 months out of High School?

7. What do you plan to be doing 5 years out of High School?

8. Do you plan to go to college? ____ 1.Yes ____ 2.No

9. If you answered yes; what are your career plans 6 months after college?

10. What are your career plans 5 years after college?

Consortia: **HS Counselor ____**

High School Guidance Counselor Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep programs we are collecting perceptions about the effectiveness of the program. As a guidance counselor involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope, seal it and return the envelope to _____.

About You

1. Gender: ___ 1. Male ___ 2. Female
2. Highest degree: Bachelors ___ Masters ___ Doctorate___
   Advanced certificate in _____.

3. What grade level or levels do you advise? _____

4. How many years experience do you have as a Guidance Counselor? _____

5. How long have you been involved with Tech Prep as a Guidance Counselor? _____

6. How many students do you advise? _____

7. How do you select students to direct towards the Tech Prep program? _____
_____

Staff Development

8. The following is a list of staff development activities and topics that address Tech-Prep related topics. Please indicate your desire for information by circling the response that best represents your need and whether you have attended and/or how you feel about attending. (Please circle your responses.)

	Have attended have enough information	Have attended would like information	Would like to attend/get information	No need to attend/get information
1. General information about Tech Prep.	1	2	3	4
2. Recruitment, placement, and retention of students for Tech Prep.	1	2	3	4
3. School relationship with business/industry/labor.	1	2	3	4
4. School to work information.	1	2	3	4
5. Integrating vocational and academic content.	1	2	3	4
6. Application of mathematics, science, and/or communications competencies to the work setting.	1	2	3	4
	1	2	3	4
7. Career development counseling for students.	1	2	3	4
8. Job placement assistance for students.	1	2	3	4
9. Information on labor market trends.	1	2	3	4
10. Methods of promoting Tech Prep to various consumers.	1	2	3	4
11. Promoting cooperation between secondary and post-secondary staff.	1	2	3	4

Your Invovement in Tech Prep

9. What has been your involvement in the planning and implementation of Tech Prep during the last three years? (Please check as many as apply.)

__ 1. Served on the planning committee for Tech Prep.
__ 2. Helped develop Tech Prep curriculum.
__ 3. Helped develop the content of the articulation agreement between high school and community colleges.
__ 4. Advised students on Tech Prep recruitment and options.
__ 5. Visited Tech Prep programs in other areas.
__ 6. Participated in Tech Prep meetings with business or community leaders.
__ 7. Attended national or regional conference on Tech Prep.
__ 8. Conducted workshops/training on Tech Prep.
__ 9. Presented material at regional Tech Prep conference.
__ 10. Presented material at national Tech Prep conference.
__ 11. Other _____.

About Tech Prep

10. The following areas reflect attitudes or perceptions about the Tech Prep program. For each, please circle your responses to the following statements using this scale:

1= Strongly agree 2=Agree 3=Slightly agree 4=Slightly disagree 5=Disagree 6=Strongly disagree

	Agreement Scale					
	SA					SD
1. Tech Prep is beneficial for former "general program" students.	1	2	3	4	5	6
2. Tech Prep is beneficial for "regents program" students.	1	2	3	4	5	6
3. Integrating academic and vocational skills is crucial to Tech Prep success.	1	2	3	4	5	6
4. Tech Prep is just another short-lived educational innovation.	1	2	3	4	5	6
5. Tech Prep helps to orient students to current work place requirements.	1	2	3	4	5	6
6. Tech Prep effectively prepares students for post secondary education and/or future employment.	1	2	3	4	5	6
7. I support the continuation of the Tech Prep Program.	1	2	3	4	5	6
8. I believe that the Tech Prep program helps retain students who may have been at risk.	1	2	3	4	5	6
9. Students have positive attitudes about their experience in the Tech Prep program.	1	2	3	4	5	6
10. Student self esteem is raised through the Tech Prep Program.	1	2	3	4	5	6
11. I encourage students to take higher levels of math and science prior to the implementation of Tech Prep.	1	2	3	4	5	6
12. Students seek more career guidance because of Tech Prep.	1	2	3	4	5	6
13. Tech Prep has not changed vocational education.	1	2	3	4	5	6
14. Tech Prep courses are not appropriate for college-bound students.	1	2	3	4	5	6
15. Students in the Tech Program are more focused on career goals than are non-regents program students.	1	2	3	4	5	6

11. Please provide us with any comments, concerns, and issues you may have about Tech Prep:

Consortia: _____ PS student _____

Post Secondary Student Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep programs we are collecting perceptions about the effectiveness of the program. As a student involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope, seal it and return the envelope to _____.

About You

Gender: __1. Male __ 2. Female Age:_____

Credit hours accumulated by Dec. 31 1996: _____

Your areas of certification/concentration: _____

Do you have an identified disability (eg. Learning Disability, Attention Deficit Disorder, or Anxiety etc.). _____

Joining Tech Prep

1. With whom did you talk when you were making the decision to enter the Tech Prep program? (Please check all that apply).

__ 1. Parents/Caregivers __ 2. Teachers __3. Peers
__ 4. Administators __ 5. Guidance Counselors __ 6. Others:_____

2. Why did you decide to enter the program?

3. How much assistance or information did you receive from your teachers, caregivers/parents and counselors in understanding careers and selecting your career direction? (Please check as many as apply.)

___ 1. a great deal from at least one teacher
___ 2. a great deal from at least one counselor
___ 3. a great deal from parents/caregivers
___ 4. some from teachers
___ 5. some from counselors
___ 6. some from parents/caregivers
___ 7. little or none from teachers
___ 8. little or none from counselors
___ 9. little or none from parents/caregivers

Transition from High School

4. How would you rate your transition from high school to college/post secondary institution? (Please check one)

__1.Extremely difficult __2.Very difficult __3. Some Problems __4. Few problems__5. No problem at all

4a. If you found difficulties, what were they? (Pleases check as many as apply.)

__ 1. Being away from home
__ 2. Doing assignments
__ 3. Finding my way around campus
__ 4. Getting to know faculty
__ 5. Selecting courses
__ 6. Making friends
__ 7. More responsibilities
__ 8. Using computers
__ 9. Adjusting to a new study routine
__ 10. Finding a job
__ 11. Other _____

About Tech Prep

5. The following statements are about the Tech Prep program and/or classes. Please indicate your level of agreement with each statement by circling the number that best represents your opinion.

1 = strongly agree 2 = agree 3= slightly agree 4= slightly disagree 5= disagree 6=strongly disagree

	Agreement Scale					
	SA					SD
1. The classes cover the materials I need to know.	1	2	3	4	5	6
2. The classes are very job-oriented.	1	2	3	4	5	6
3. The class size is good.	1	2	3	4	5	6
4. The classes have increased my awareness of different jobs.	1	2	3	4	5	6
5. The classes make me work hard.	1	2	3	4	5	6
6. The classes are interesting to me.	1	2	3	4	5	6
7. The classes are preparing me to get a good job.	1	2	3	4	5	6
8. The classes increase my motivation for learning.	1	2	3	4	5	6
9. The classes increase my thinking skills.	1	2	3	4	5	6
10. My self-esteem has increased because of my involvement in these classes.	1	2	3	4	5	6

6. Please check any of the following that you have learned through Tech Prep.

__ 1. Use of specific job skills.
__ 2. How to write a resume.
__ 3. How to prepare for a job interview.
__ 4. Ability to work cooperatively
__ 5. Ability to manage my time effectively.
__ 6. How to follow directions.
__ 7. Responding to feedback from my boss.
__ 8. How to plan for work to be done.
__ 9.Generating alternate problem solving strategies.
__ 10. Learning to pay attention.
__ 11. Using common sense.
__ 12. Remembering how to do things day to day.
__ 13. Work place social skills.
__ 14. Dealing with frustration on the job.
__ 15. Punctuality with time schedules.
__ 16. Specific reading skills for the job.
__ 17. Specific math skills for the job.

Your Future Plan

7. What do you plan to be doing 6 months out of College/Post Secondary?

8. What do you plan to be doing 5 years out of College/Post Secondary?

Consortia: _____ PS Faculty _____

Post Secondary Faculty Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep programs we are collecting perceptions about the effectiveness of the program. As a faculty member involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope, seal it and return the envelope to _____.

About You

1. Gender: ___ 1. Male ___ 2. Female
2. Highest degree: Bachelors ___ Masters ___ Doctorate ___
   Advanced certificate in _____.
3. What courses do you teach? _____.

Support for Tech Prep

1. The following are areas in which you may have received support for implementation of Tech Prep. For each, please circle the letter indicating the level of support you have received.

	Outstanding	Sufficient	Insufficient	No support
1. Materials for the class room.	1	2	3	4
2. Staff development.	1	2	3	4
3. Planning time.	1	2	3	4
4. Support from other teachers/faculty.	1	2	3	4
5. Support from counselors/admissions staff.	1	2	3	4
6. Support from administrators.	1	2	3	4
7. Support from the business community.	1	2	3	4

Staff Development

2. The following is a list of staff development topics that address Tech-Prep related issues, for each, please indicate if you have attended and how you feel about attending them. (Please circle your response.)

	Have attended	Will attend	Would like to attend	No need to attend
1. General information about Tech Prep.	1	2	3	4
2. Recruitment, placement, and retention of students for Tech Prep.	1	2	3	4
3. School relationship with business/industry/labor.	1	2	3	4
4. School to work information.	1	2	3	4
5. Integrating vocational and academic content.	1	2	3	4
6. Application of mathematics, science, and/or communications competencies to the work setting.	1	2	3	4
7. Curriculum development.	1	2	3	4

Your Invovement in Tech Prep

3. What has been your involvement in the planning and implementation of Tech Prep during the last three years? (Please check as many as apply.)

__ 1. Served on the planning committee for Tech Prep.
__ 2. Helped develop Tech Prep curriculum.
__ 3. Helped develop the content of the articulation agreement between high school and community colleges.
__ 4. Advised students on Tech Prep recruitment and options.
__ 5. Taught Tech Prep (applied, integrated) course.
__ 6. Participated in Tech Prep meetings with business or community leaders.
__ 7. Attended national or regional conference on Tech Prep.
__ 8. Conducted workshops/training on Tech Prep.
__ 9. Presented material at regional Tech Prep conference.
__ 10. Presented material at national Tech Prep conference.
__ 11. Visited Tech Prep programs in other areas.
__ 12. Other _____.

About Tech Prep

4. The following areas reflect attitude or perceptions about the Tech Prep program. For each, please circle your responses to the following statements using this scale:

1= Strongly agree 2=Agree 3=Slightly agree 4=Slightly disagree 5=Disagree 6=Strongly disagree

	Agreement Scale					
	SA					SD
1. Tech Prep is beneficial for students.	1	2	3	4	5	6
2. Integrating academic and vocational skills is crucial to Tech Prep success.	1	2	3	4	5	6
3. Tech Prep is just another short-lived educational innovation.	1	2	3	4	5	6
4. Tech Prep helps to orient students to current work place requirements.	1	2	3	4	5	6
5. Tech Prep effectively prepares students for post secondary education and/or future employment.	1	2	3	4	5	6
6. I support the continuation of the Tech Prep Program.	1	2	3	4	5	6
7. I believe that the Tech Prep program helps retain students who may have been at risk.	1	2	3	4	5	6
8. Students have positive attitudes about their experience in the Tech Prep program.	1	2	3	4	5	6
9. Student self esteem is raised through the Tech Prep Program.	1	2	3	4	5	6
10. Students seek more career guidance because of Tech Prep.	1	2	3	4	5	6
11. Tech Prep has not changed vocational education.	1	2	3	4	5	6
12. Tech Prep courses are not appropriate for college-bound students.	1	2	3	4	5	6

5. How would you assess the transition of students in Tech Prep program from high school to a post secondly institution? (Please choose one)

__1.Extremely difficult __2.Very difficult __3. Some problems __4.Little problems __5. No problem at all

If they faced any difficulty, what were they? (Please check as many as apply)

__ 1. Being away from home
__ 2. Doing assignments
__ 3. Finding their way around campus
__ 4. Getting to know faculty
__ 5. Selecting courses
__ 6. Making friends
__ 7. More responsibilities
__ 8. Using computers
__ 9. Adjusting to a new study routine
__10. Finding a job
__11. Other _____

6. Please provide us with any comments, concerns, and issues you may have about Tech Prep.

Consortia: PS counselor _____

Post Secondary Admission/Career Counselor Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep programs we are collecting perceptions about the effectiveness of the program. As an admission/career counselor involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope, seal it and return the envelope to _____.

About You

1. Gender: ___ 1. Male ___ 2. Female
2. Your job title _____.
3. Highest degree: Bachelors ___ Masters ___ Doctorate ___
   Advanced certificate in _____.

4. How many years experience do you have as an Admission/ Career Counselor?_____.

5. How long have you been involved with Tech Prep as an Admission/Career Counselor? _____.

6. How many students do you advise a year? _____.

7. How do you know that a student was a part of a Tech Prep program? _____

Staff Development

8. The following is a list of staff development activities and topics that address Tech-Prep related topics. Please indicate whether you have attended and how you feel about attending.

	Have attended have enough information	Have attended would like information	Would like to attend/get information	No need to attend/get information
1. General information about Tech Prep.	1	2	3	4
2. Recruitment, placement, and retention of students for Tech Prep.	1	2	3	4
3. School relationship with business/industry/labor.	1	2	3	4
4. School to work information.	1	2	3	4
5. Integrating vocational and academic content.	1	2	3	4
6. Application of mathematics, science, and/or communications competencies to the work setting.	1	2	3	4
7. Career development counseling for students.	1	2	3	4
8. Job placement assistance for students.	1	2	3	4
9. Information on labor market trends.	1	2	3	4
10. Methods of promoting Tech Prep to various consumers.	1	2	3	4
11. Promoting cooperation between secondary and post-secondary staff.	1	2	3	4

Your Invovement in Tech Prep

9. What has been your involvement in the planning and implementation of Tech Prep during the last three years? (Please check as many as apply.)

__ 1. Served on the planning committee for Tech Prep.
__ 2. Helped develop Tech Prep curriculum.
__ 3. Helped develop the content of the articulation agreement between high school and community colleges.
__ 4. Advised students on Tech Prep recruitment and options.
__ 5. Visited other Tech Prep programs in other areas.
__ 6. Participated in Tech Prep meetings with business or community leaders.
__ 7. Attended national or regional conference on Tech Prep.
__ 8. Conducted workshops/training on Tech Prep.
__ 9. Presented material at regional Tech Prep conference.
__ 10. Presented material at national Tech Prep conference.
__ 11. Other _____.

About Tech Prep

10. The following areas reflect attitudes or perceptions about the Tech Prep program. For each, please circle your responses to the following statements using this scale:

1= Strongly agree 2=Agree 3=Slightly agree 4=Slightly disagree 5=Disagree 6=Strongly disagree

	Agreement Scale					
	SA					SD
1. Tech Prep is beneficial for former "general program" students.	1	2	3	4	5	6
2. Tech Prep is beneficial for "regents program" students.	1	2	3	4	5	6
3. Integrating academic and vocational skills is crucial to Tech Prep success.	1	2	3	4	5	6
4. Tech Prep is just another short-lived educational innovation.	1	2	3	4	5	6
5. Tech Prep helps to orient students to current work place requirements.	1	2	3	4	5	6
6. Tech Prep effectively prepares students for post secondary education and/or future employment.	1	2	3	4	5	6
7. I support the continuation of the Tech Prep Program.	1	2	3	4	5	6
8. I believe that the Tech Prep program helps retain students who may have been at risk.	1	2	3	4	5	6
9. Students have positive attitudes about their experience in the Tech Prep program.	1	2	3	4	5	6
10. Student self esteem is raised because of Tech Prep Program.	1	2	3	4	5	6
11. Students seek more career guidance after joining Tech Prep.	1	2	3	4	5	6
12. Tech Prep has not changed vocational education.	1	2	3	4	5	6
13. Tech Prep courses are not appropriate for college-bound students.	1	2	3	4	5	6
14. Students in the Tech Program are more focused on career goals than are non-regents program students.	1	2	3	4	5	6

11. Please provide us with any comments, concerns, and issues you may have about Tech Prep:

Consortia: PS Administrator _____

Post Secondary Administrator Survey of the Tech Prep Program

As a part of an effort to evaluate the New York State's Tech Prep programs we are collecting perceptions about the effectiveness of the program. As an administrator involved in this program, your input is very important to us. Please read each of the following questions and provide us with your response. To maintain confidentiality of your responses, please place the survey in the accompanying envelope, seal it and return the envelope to _____.

About You

Gender: ___ 1. Male ___ 2. Female Title: _____.

Years of experience as an administrator _____.

How long have you been involved with Tech Prep as an administrator? _____.

Support for Tech Prep

1. The following are areas in which you may have received support for implementation of Tech Prep. For each, please circle the letter indicating the level of support you have received.

	Outstanding	Sufficient	Insufficient	No support
1. Materials for the classroom.	1	2	3	4
2. Staff development.	1	2	3	4
3. Planning time.	1	2	3	4
4. Support from other teachers/faculty.	1	2	3	4
5. Support from counselors/admissions staff.	1	2	3	4
6. Support from administrators.	1	2	3	4
7. Support from the business community.	1	2	3	4

Staff Development

2. The following is a list of staff development topics that address Tech-Prep related issues, for each, please indicate if you have attended and/or how you feel about attending them. (Please circle your responses.)

	Have attended	Will attend	Would like to attend	No need to attend
1. General information about Tech Prep.	1	2	3	4
2. Recruitment, placement, and retention of students for Tech Prep.	1	2	3	4
3. School relationship with business/industry/labor.	1	2	3	4
4. School to work information.	1	2	3	4
5. Integrating vocational and academic content.	1	2	3	4
6. Promoting cooperation between secondary and post-secondary staff.	1	2	3	4
7. Job placement assistance for students.	1	2	3	4

Your Invovement in Tech Prep

3. What has been your involvement in the planning and implementation of Tech Prep during the last three years? (Please check as many as apply.)

__ 1. Served on the planning committee for Tech Prep.
__ 2. Helped develop Tech Prep curriculum.
__ 3. Helped develop the content of the articulation agreements between high school and community colleges.
__ 4. Advised students on Tech Prep recruitment and options.
__5. Visited other Tech Prep programs.
__ 6. Participated in Tech Prep meetings with business or community leaders.
__ 7. Attended a national/regional conference on Tech Prep.
__ 8. Conducted workshops/training on Tech Prep.
__ 9. Presented material at regional Tech Prep conference.
__ 10. Presented material at national Tech Prep conference.
__ 11. Other _____

About Tech Prep

4. The following areas reflect attitudes or perceptions about the Tech Prep program. For each, please circle your responses to the following statements using this scale:

1= Strongly agree 2=Agree 3=Slightly agree 4=Slightly disagree 5=Disagree 6=Strongly disagree

	Agreement Scale					
	SA					SD
1. Tech Prep is beneficial for students.	1	2	3	4	5	6
2. Integrating academic and vocational skills is crucial to Tech Prep success.	1	2	3	4	5	6
3. Tech Prep is just another short-lived educational innovation.	1	2	3	4	5	6
4. Tech Prep helps to orient students to current work place requirements.	1	2	3	4	5	6
5. Tech Prep effectively prepares students for post secondary education and/or future employment.	1	2	3	4	5	6
6. I support the continuation of the Tech Prep Program.	1	2	3	4	5	6
7. I believe that the Tech Prep program helps retain students who may have been at risk.	1	2	3	4	5	6
8. Students have positive attitudes about their experience in the Tech Prep program.	1	2	3	4	5	6
9. Student self esteem is raised through the Tech Prep Program.	1	2	3	4	5	6
10. Articulation agreements are important for Tech Prep success.	1	2	3	4	5	6
11. If federal Tech Prep funds were discontinued, my Tech Prep program would have difficulty in continuing.	1	2	3	4	5	6
12. Administrators are knowledgeable aboutTech Prep funding and curriculum.	1	2	3	4	5	6
13. School Board members are knowledgeable about Tech Prep funding and curriculum.	1	2	3	4	5	6

5. Please provide us with any comments, concerns, and issues you may have about Tech Prep.

Appendix B

Interview Methodology and Respondents

Table B-1
List of Consortium and Interviews Conducted

Consortium	SC	High school					Post-Secondary			DM
		Student	Teacher	Adm.	GC	Sp. Needs	Faculty	Adm	Adm.	
Bronx Community College	1	1	1	--	X	--	1	1	--	--
Broome Community College	2	--	--	1	X	1	--	1	--	1
Catt.-Alleg.-Erie-Wyom. BOCES	1	--	1+1sn	1	1	1	--	--	--	1
Corning Community College	1	1	1	1	1	--	--	--	--	1
Dutchess/Ulster TP Consortium	1	--	1	--	1	1	--	X	--	--
Eastern Suffolk BOCES	1		1	1	--	--	1	1	X	1
Erie BOCES	1	1	2	1	X	--	--	--	--	1
Fashion Institute of Technology	2	--	--	1	1	--	1	1	--	1
Finger Lakes Community College	1	--	--	X	X	1	1	1	--	--
Genesee Community College	1	--	1	--	1	--	--	1	1	1
Monroe Community College	X	--	1sn	--	1	1	--	1	1	--
Mount Vernon City School Dist.	1	--	1	1	1	1	--	--	--	--
Nassau BOCES	1	1	1	1	1	--	--	--	--	1
College of Staten Island	1	1	X	--	--	X	X	--	X	--
NYC Technical College	1	1	1	--	--	--	1	1	--	--
Niagara County Comm. College	1	--	--	1	1	--	1	1	--	1
Onondaga Community College	1	1	1	1	--	--	--	--	1	1
Orange County Comm. College	1	1	1	--	1	--	--	--	1	1
Onieda-Madison BOCES	1	--	1	1	1	--	--	--	--	--
Putnam N. /Westchester BOCES	1	--	--	X	X	--	--	X	X	1
Queensborough Comm. College	1	--	--	--	1	--	1	1	--	1
St. Lawrence-Lewis BOCES	1	1	--	1	--	--	X	1	1	1
SUNY College of Tech. Alfred	1	--	1	1	X	1	1+1sn	--	--	--
SUNY ATC at Cobleskill	1	--	--	X	X	1	X	--	--	--
SUNY Delhi College of Tech.	1	1	1	--	--	1	--	1	X	1
Syracuse City School District	1	--	3	--	1	--	1	--	1	--
Tompkins-Cortland Com. College	1	--	1	1	--	1	--	--	1	1
Two Year College Development	1	--	1	1	1	1	1	1	--	--
Western Suffolk BOCES	1	--	2	--	1	--	1	2	X	--
Yonkers City School District	X	--	1	X	--	--	--	1	1	1

SC: Site Director, Adm.: Administrator, Admi: Admission staff, Spe. Needs /sn: Special Needs teachers, DM: Decision Makers

The number indicates how many were interviewed.

-- indicates not sampled.

X indicates were sampled, but not possible to do interviews.

Tech Prep
Site Coordinator Interview Protocol

Interviewee's Name:
Position:
# of Year's with Tech Prep:
Interviewer:
Date of Interview:
Tape # _____

1. How does the Tech Prep program benefit students who are enrolled in Tech Prep classes or the program ?

Probe:

What makes this program unique ? (from Regent's ? from General track ?)
Does it help students make the transfer from higschool to post-secondary ?
If so, how?

2. What teacher/faculty "development" opportunities have occurred in your consortia as a result of Tech Prep ?

Probe:

Who are they for ?
What is the content ?
Which need to be repeated ?
What new development opportunities are needed ?

3. How has the business community reacted to Tech Prep ?

Probe:

Are they involved ? if so, how ?
Are they part of the Tech Prep "steering" or advisory committee ?
Are there any unique or innovative partnerships with colleges or schools and local businesses ? If so, what are they ?
How could this relationship be improved ?

4. Describe the composition of your consortia's steering or advisory committee.

Probe:

For those individuals from highschools or community colleges what "level" (e.g. teacher vs principal) do the primarily represent ?
Are meetings held regularly ?
From your perspective does it appear to be functioning effectively ?
Are there things that you would change ?

5. What is your perception of the quality of the relationship between highschools and post-secondary schools in your consortia ?

Probe:

What elements of that relationship make it a quality relationship ?
How critical are the articulation agreements ?
What might be done to improve them ?

6. What is the relationship between School-to-Work programs in your consortia and Tech Prep ? What are some of these relationships (committees ?)

7. Are there any areas in which you would like to receive assistance/help from the Statewide Coordinators (Jack and Stan) or State Department of Education ? What are they ?

Tech Prep

High School Teacher Interview Protocol

Interviewee's Name:
Position:
# of Year's with Tech Prep:
# of years with school district or as a teacher?
Interviewer:
Date of Interview:
Tape # _____

Question #1:

If you were to describe Tech Prep to another Teacher how would you describe it?

Question #2:

In what way is teaching in Tech Prep different from teaching in traditional classes?

Probes:
Content of the curriculum ?
Methods of teaching ?
Teaching materials?
Applied nature of the program ?
Student - teacher interactions ?
Teacher - community interactions ?

Question 3:

What are some things that work well for you when implementing Tech Prep Curriculum? For instance, What "good things" do you do that you want to make sure to continue in the future?

Question 4:

Are there currently any barriers to implementation of Tech Prep? For instance, are there some things that didn't work? or that made implementation harder?

Question 5:

In what way could Tech Prep be improved? What resources would you need? from whom?

Question 6:

What opportunities has Tech Prep presented for you as a teacher? challenges ?

Question 7:

Finally, I would like to discuss the student outcomes achieved by Tech Prep.
Have you observed changes in your students since Tech Prep has been implemented?
If so, what kinds of changes?

Probes areas:

---Motivation
---Attendance
---Behavior
---Attitudes
---Career awareness
---Career focus
---other changes

Tech Prep
High School Administrator Interview Protocol

Interviewee's Name:
Position:
District:
Phone:
# of years with district:
Interviewer:
Date of Interview:

Question #1: First, I'd like to ask you some questions about the development and implementation of Tech Prep.

1. Was a mission statement (or something like it) developed for your Tech Prep program ?

   If so, what is it ?

   If not, what is the general "philosophy" of your Tech Prep program ?

2. What resources has your high school committed to Tech Prep ?

   Probe:
   Faculty ?
   Do you have a separate budget for Tech Prep ?
   Are there other sources of funding or support ? (e.g. grants, community organizations, donations, volunteer time)

3. Who was involved in the actual implementation of Tech Prep ?

   Probe:
   Were business organizations involved in the local "steering" committee ? Are they now ?
   Does Tech Prep have a group that acts in an advisory capacity ?
   Were articulation agreements involved in the implementation ?

Question #2: Now I'd like to ask some questions about outcomes which may have resulted from the implementation of Tech Prep.

1. Has Tech Prep "enhanced" your high school's relationship with local business organizations? the community ? colleges ? secondary schools ?

   Probe:
   In what ways ?
   Are there any unique and innovative partnerships with businesses ? If so, what are they ?

2. Has Tech Prep provided staff development opportunties ?

Probe:
Formal opportunities ? If, so what are they ?
Have they been beneficial ? If, so in what ways ?

Question #3: Do you have any additional comments regarding the implementation of Tech Prep?

Tech Prep

High School Guidance Counselor Interview Protocol

Interviewee's Name:
Position:
# of Year's with Tech Prep:
# of years with school district or as a Guidance Counselor?
Interviewer:
Date of Interview:
Tape # _____

Question #1:

If you were to describe Tech Prep for a parent how would you describe it.?
If you were to describe Tech Prep for another guidance counselor how would you describe it.?
---What does Tech Prep mean for students?

Question #2:

How do you decide which students to advise into the Tech Prep program?

Question #3:

What are the benefits or positive outcomes of Tech Prep for the students?
Are there any drawbacks to the Tech Prep program for the students?
--if so what are they.

Question #4:

How do you feel about the Tech Prep program?
--what do you see as the most positive aspects of the Tech Prep program?
--what do you feel needs improvement in the Tech Prep program?

Question #5:

What opportunities have Tech Prep presented for you as a guidance counselor?
Basically describe the staff development process and activities?
---is staff development mandatory?
---is it ongoing?

High School Student Focus Group Questions

Question 1

How did you become involved with Tech Prep courses or the Tech Prep Program?

--what information were you given?
--was it sufficient?
--if not, what else would you have liked to know?

Question 2

Do you think the Tech Prep is covering what you will need to know to be successful in your future job?
--if yes; What has been covered that you feel is job related?
--if not; What do you think would be useful for you to learn?

Question 3

What Tech Prep experiences have been the most useful? How?
--What tech Prep experiences have been least useful?

Question 4

What type of career counseling have you received?
--has the information been sufficient?
--if not; what would you like to know?
--from who have you recieved information?

Question 5

Have you had the opportunity to visit with or work with people who have jobs in your field?

--who did you meet with and/or work with?
--How often did you have these opportunities?
--was it useful? How?

Question 6

What are your future educational plans?
--what are your future work plans?
--where do you want to be 5 years from now?

Tech Prep

Post Secondary Faculty Interview Protocol

Interviewee's Name:
Position:
# of Year's with Tech Prep:
# of years with current institution or as an instructor?
Interviewer:
Date of Interview:
Tape # _____

Question #1:

If you were to describe Tech Prep to another teacher how would you describe it?

Question #2:

In what way is teaching in Tech Prep different from teaching in traditional courses?

Probes:
Content of the Curriculum ?
Methods of Teaching ?
Teaching materials?
Applied nature of the program ?
Student - teacher interactions ?
Teacher - community interactions ?

Question 3:

What are some things that work well for you when implementing Tech Prep Curriculum? For instance, What "good things" do you do that you want to make sure to continue in the future?

Question 4:

Are there currently any barriers to implementation of Tech Prep? For instance, are there some things that didn't work? or that made implementation harder?

Question 5:

In what way could Tech Prep be improved? What resources would you need? from whom?

Question 6:

What opportunities has Tech Prep presented for you as a faculty member ? challenges ?

Tech Prep

Post-Secondary Career Counselor Interview Protocol

Interviewee's Name:
Position:
# of Year's with Tech Prep:
# of years with school district or as a Guidance Counselor?
Interviewer:
Date of Interview:
Tape # _____

Question #1:

If you were to describe Tech Prep for a parent how would you describe it.?
If you were to describe Tech Prep for another guidance counselor how would you describe it.?
---What does Tech Prep mean for students?

Question #2:

How do you decide which students to advise into the Tech Prep program?

Question #3:

What are the benefits or positive outcomes of Tech Prep for the students?
Are there any drawbacks to the Tech Prep program for the students?
--if so what are they.

Question #4:

How do you feel about the Tech Prep program?
--what do you see as the most positive aspects of the Tech Prep program?
--what do you feel needs improvement in the Tech Prep program?

Question #5:

What opportunities have Tech Prep presented for you as a guidance counselor?
Basically describe the staff development process and activities?
---is staff development mandatory?
---is it ongoing?

Tech Prep
Post-Secondary Administrator Interview Protocol

Interviewee's Name:
Position:
District:
Phone:
# of years with district:
Interviewer:
Date of Interview:

Question #1: First, I'd like to ask you some questions about the development and implementation of Tech Prep.

1. Was a mission statement (or something like it) developed for your Tech Prep program ?

   If so, what is it ?

   If not, what is the general "philosophy" of your Tech Prep program ?

2. What resources has your college committed to Tech Prep ?

   Probe:
   Faculty ?
   Do you have a separate budget for Tech Prep ?
   Are there other sources of funding or support ? (e.g. grants, community organizations, donations, volunteer time)

3. Who was involved in the actual implementation of Tech Prep ?

   Probe:
   Were business organizations involved in the local "steering" committee ? Are they now ?
   Does Tech Prep have a group that acts in an advisory capacity ?
   Were articulation agreements involved in the implementation ?

Question #2: Now I'd like to ask some questions about outcomes which may have resulted from the implementation of Tech Prep.

1. Has Tech Prep "enhanced" your college's relationship with local businesses ?the community ? other colleges ? secondary schools ?

   Probe:
   In what ways ?
   Are there any unique and innovative partnerships with businesses ? If so, what are they ?

2. Has Tech Prep provided staff development opportunties ?

Probe:
Formal opportunities ? If, so what are they ?
Have they been beneficial ? If, so in what ways ?

Question #3: Do you have any additional comments regarding the implementation of Tech Prep?

Tech-Prep Decision Maker Phone Interview Protocol

Consortia			
Interviewee's Name		**Phone Number**	
Position			
Interviewer			
Date of Interview	**1st trial:**	**2nd trial:**	**3rd trail:**

1. To what degree have you been involved in Tech Prep? (Degree of involvement)

   Heavily? fairly? So so? Not so much? Not at all?

2. How do you perceive your role in Tech Prep? (Nature/type of involvement)

   Advisory?
   Moral support?
   Facilitation of relation between the business and school?

3. Do you think that Tech Prep has benefited your community?

   If yes, how?

   To students?
   To business-school relations?

4. How do you think that Tech Prep can be improved in your community?

   What are constraints?
   What are the opportunities?

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement (OERI)
Educational Resources Information Center (ERIC)

NOTICE

REPRODUCTION BASIS

☑ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").